

A Qualitative Exploration of Adversarial Growth in Elite Swimmers

by

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A Doctoral Thesis

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Abstract

The past few decades have heralded a paradigm shift in the psychology, oncology, and trauma literature. This shift has involved a re-focusing of the empirical lens from the distress and pathology of traumatic experiences to a focus on growth and thriving in response to adversity or traumatic events. Multiple studies have identified that individuals recognise positive changes following their experiences of adversity to the extent that many individuals report development beyond their pre-trauma functioning. These positive changes have been broadly conceptualised as growth, a multidimensional concept, which typically involves an increased appreciation for life, more meaningful relationships, an increased sense of personal strength, a change in priorities, and a richer existential and spiritual awareness. Growth following adversity, or *adversarial growth*, is still relatively new in sport, and specifically elite sport, and accordingly the purpose of this doctoral research was to explore adversarial growth in elite athletes with a particular emphasis on the experiences of elite level swimmers.

The research was grounded in a constructivist paradigm which assumes changing and sometimes conflicting social realities, and seeks to understand people's constructions of their lived experiences. A qualitative methodology incorporating a range of methods and analyses was utilised. The research involved a narrative approach utilising holistic-form and holistic-content analysis of Olympic Swimming Champions' autobiographies; an interpretative phenomenological analysis of Olympic swimmers' semi-structured interviews and timelines; a qualitative content analysis of elite coaches' interpretations of elite swimmers' experiences of adversarial growth; and a meta-synthesis of the qualitative growth literature in elite sport.

The findings from the three empirical studies and the meta-synthesis are presented. The first study involved an exploration of the adversity- and growth-related experiences of swimmers at the highest competitive level, described how Olympic swimmers perceived their adversity-related experiences to be traumatic, and explored how they used transitional processes to positively transform their experiences. The second study involved an exploration of Olympic swimmers' experiences of constructive and illusory growth following adversity, and provided a critical stance on the veridicality of growth. The third empirical study involved a content analysis of elite coaches' semi-structured interviews and identified that they are in a position to corroborate the growth experiences of elite level swimmers, and that this growth is identifiable as having functional, illusory, and action aspects. Finally, a meta-synthesis of qualitative research ascertained what the literature contributes to our understanding of the conceptualisation of adversity-related growth in elite level athletes, and how that understanding has evolved over time.

Publications Arising from this Thesis

Peer-reviewed journal articles:

Howells, K., & Fletcher, D. (2015). Sink or swim: Adversity- and growth-related experiences in Olympic swimming champions. *Psychology of Sport and Exercise*, 16, 37–48. doi: 10.1016/j.psychsport.2014.08.004

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Conference proceedings:

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Howells, K., & Fletcher, D. (2014, February). *Sink or Swim: Adversity and Growth in Olympic Swimming Champions*. Poster session presented at the SSEHS Postgraduate Research Student Conference, Loughborough University, 4 June 2014.

Howells, K., & Fletcher, D. (2015, August). Recent developments growth research in performance sport. In D. Fletcher (Chair), *Recent developments in resilience, growth, and thriving research in performance sport*. Symposium conducted at the American Psychological Association Convention, Toronto, ON.

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Part I

Introduction and Literature Review

CHAPTER I

INTRODUCTION

The way in which a man accepts his fate and all the suffering it entails, the way in which he takes up his cross, gives him ample opportunity — even in the most difficult circumstances — to add a deeper meaning to life.

(Frankl, 2006, p. 67)

Anecdotal evidence, religious doctrine, and philosophical writings collectively point to the positive outcomes that individuals often claim emerge from their experiences of suffering. Proverbs relating to this notion such as “every cloud has a silver lining”, or in Friedrich Nietzsche’s words “what doesn’t kill us makes us stronger” have been internalised as part of our cultural understanding and are frequently quoted by individuals in response to experiencing an unpleasant event. This notion of growth from adversity, which has been subsumed into in our collective consciousness as a cultural script, withstands even history’s darkest hour. Viktor Frankl, psychiatrist, founder of logotherapy (the belief that striving to find a meaning in one’s life is the primary motivator in humans), and Auschwitz survivor, drew on his own experiences of the Holocaust to inform his belief that it is the drive for meaning that allows individuals to overcome their painful experiences and to facilitate psychological healing. As his quote at the start of this chapter illustrates, he subscribed to the belief that suffering provides us with the opportunity to find meaning in sorrow and to experience spiritual growth. This idea has become an attractive proposition for theologians, philosophers, and academics alike. Since the latter part of the twentieth century the concept of growth has been studied extensively by scholars who have explored the positive outcomes that emerge from experiences of a diverse range of traumas, such as cancer, illness, terrorism, and disability.

Recently, the notion of growth from adversity has emerged as a powerful cultural narrative in the stories that elite athletes tell of their experiences. These narratives or scripts have been promulgated to a wide audience, for example, through the media and through athletes’ published memoirs. As the athletes left the London 2012 Olympic village, a number of British athletes such as Bradley Wiggins, Victoria Pendleton, Jessica Ennis, and Sir Chris Hoy were already well on their way to publishing their biographies revealing their often painful and distressing journeys from childhood to the Olympic podium and beyond. Victoria Pendleton’s autobiography (Pendleton & McRae, 2012) for example, was serialised in the Sunday Times for mass public consumption, and detailed her experiences of self-harm, a

difficult father–daughter relationship, and body image concerns. The narratives that these elite athletes constructed and reported in their autobiographies have revealed the often brutal nature of elite competitive sport at the highest level, and the publication of their memoirs is reflective of an increasing trend for successful athletes to publically disclose details of their private lives. For those concerned with elite performance, such as performance directors, coaches, and sport psychology practitioners, understanding the potential impact of the negative experiences that elite athletes endure, and recognising facilitative practices that can encourage positive outcomes is of fundamental importance. Enhanced knowledge of this area has the potential not only to facilitate the emotional wellbeing of the athletes in question, but also harness their experiences to stimulate and sustain peak performance (see Collins & MacNamara, 2012).

The first three empirical research studies in this thesis involved the exploration of the adversity– and growth– related experiences of elite swimmers at the highest levels. The final study involved a meta-synthesis of adversarial growth in elite sport performers across multiple sports. Competitive swimming was selected as the primary vehicle for consideration of growth–related experiences for a number of reasons. Referred to as one of the “glamour sports” (Lohn, 2010, p. 1) of the Olympic Games, competitive swimming’s appeal has been enhanced by the success of the greatest swimmer of all time, Michael Phelps. Elite competitive swimming is tough, with success fostered through intense, focused, and disciplined training underpinned by a goal–driven environment (Lang, 2010). In addition to the adversities experienced by the wider population, such as bereavement, relationship issues, and illness, elite swimmers are particularly susceptible to sport–specific injuries (Chase, Caine, Goodwin, Whitehead, & Romanick, 2013; Kammer, Young, & Niedfeldt, 1999), organisational stressors (Didymus & Fletcher, 2012) and weight and body image concerns which have the potential to result in disordered eating (McMahon & Penney, 2010). Mark Spitz, winner of seven gold medals at the 1972 Olympic Games, and arguably one of the most recognised swimmers of all time, alluded to the difficult journey to Olympic swimming success through adversity and growth: “I don’t think I could have achieved success at the 1972 Olympics in Munich if I hadn’t endured the anguish of the 1968 Olympics in Mexico City” (Foster, 2008, p. 7).

There was also a personal rationale for selecting swimming. I am a former competitive age-group swimmer and currently compete at national level Masters competitions. I am a UKCC level 2 coach and until recently was engaged at a professional level coaching age–group and youth swimmers in a large performance-focused club. Therefore, my own identity is deeply embedded in the sport of swimming and as such I consider myself an emic of that culture. It is from this position that I often struggle with the dichotomy of, at one level, having an

intense love of the sport to, at another level, having concerns about a culture that is often characterised by authoritarian coaching styles and involves adherence to a highly disciplined and conformist environment that encourages an overt focus on both the aesthetic and functional aspects of the body. Given that my own personal interests are embedded in the sport of competitive swimming it is perhaps unsurprising that I not only have some internalised beliefs about the sport, but also that I have some a priori knowledge of the swimmers and the coaches who were involved in this doctoral research. Furthermore, during the process of this PhD I qualified as a Chartered Sport Psychologist and as part of fulfilling the requirements of the British Psychological Society (BPS) qualification, a large proportion of my applied practice, both during my supervised practice and more recently as a registered psychologist, has been with age group, youth, and elite swimmers (although none have been involved in this present research). Predictably, I have found that my applied philosophy is inextricably linked to my research, and as my journey through the PhD progressed it became increasingly important to me that my research was impactful and would ultimately have an impact on those swimmers whose lives have crossed my own. Accordingly, it is important that I acknowledge the assumptions that I have brought to the research process. To facilitate awareness of how my a priori knowledge and my applied work may have impacted on the research process, I had regular meetings with my supervisor, Dr. David Fletcher who acted as a critical friend and frequently challenged my assumptions and beliefs about swimming, the elite context, and how my assumptions and prior knowledge may have influenced my interpretations.

This doctoral research was grounded in a constructivist paradigm which assumes changing and sometimes conflicting social realities, and seeks to understand people's constructions of their lived experiences (Guba & Lincoln, 2005). Accordingly, I adopted a qualitative approach which is well suited to revealing the subjective meanings that individuals attribute to their experiences of adversities. The ontological assumption of constructivism is relativism which recognises that there is no objective truth or absolute reality; therefore the goal of this research was not to ascertain the truth of the experiences of adversity and growth but to access the stories that the elite athletes have constructed and reconstructed to ascertain *their experiences*. The coaches interviewed in chapter five do not provide verification of the swimmers' experiences but provide another voice, clarification, and sometimes an alternative explanation of the growth experiences of swimmers.

Research Questions

The purpose of this research was to explore the phenomenon of adversarial growth in elite sport generally, and elite swimming specifically. The studies address a number of areas

within this broad purpose:

1. An exploration of the adversity– and growth–related experiences of swimmers at the highest competitive level with a specific focus on the transitional processes that swimmers progress through to positively transform their experiences.
2. An exploration of Olympic swimmers’ experiences of constructive and illusory growth.
3. An exploration of whether swimming coaches corroborate the growth experiences of elite level swimmers.
4. An investigation into what the sport performance literature contributes to our understanding of the conceptualisation of adversarial growth in elite level athletes.

Structure of the Thesis

The thesis is structured around three primary research studies and a meta-synthesis. Chapter two involves a critical review and interpretation of the growth literature commencing with an historical overview and discussion of the terminology used to conceptualise both adversity and adversarial growth. Chapters three, four, and five present empirical qualitative studies which each have a different focus. However, each empirical chapter follows a similar structure. Each chapter begins with an additional interpretation of the literature relevant to the specific research question. Next, methods of data collection and analytic methods are described. The research findings are then presented and discussed in relation to theory and current literature. Chapter six presents a meta–synthesis of the qualitative findings of publications that have explored the experiences of adversarial growth and related concepts in elite athletes. Although a meta–synthesis is often presented early on in a thesis, it was decided to synthesise the literature at the end of the research period as the need for a research synthesis is only realised when one understands that in order for the gains in scholarship to be cumulative there must be a link between the past and future research (Pillemer, 1984). The published research at the start of the doctorate (October, 2012) was limited in scope, depth, and direction and it only recently, towards the end of the doctorate that additional publications have provided the depth and scope required. The thesis concludes with chapter seven which involves a discussion of the theoretical, methodological, and applied implications of the research presented in this thesis.

CHAPTER II

REVIEW OF THE LITERATURE – ADVERSITY AND GROWTH

Introduction

This chapter provides a review of the literature related to adversarial growth which encompasses the idea that individuals experience positive outcomes following the experience of trauma or adversity. The notion of adversarial growth in elite sport is still relatively novel with much of the informing evidence for researchers exploring this phenomena coming from the trauma, oncology, and general psychology literature. Accordingly, underpinned by, and utilising this literature, this chapter will comprise: a description of the historical background to the topic; a discussion of what is meant by adversity; a review of the conceptual differences in the terminology used both in respect of the distressing experiences that individuals endure and the growth that ensues; an overview of models of growth; and finally, a review of the growth literature in sport.

Historical Background

The notion of growth is not a modern construct, but one that has its origins in religious and philosophical writings (cf. Dolbier, Jaggars, & Steinhardt, 2010; Hobfoll et al., 2007). The idea that positive outcomes can emerge from traumatic experiences transcends religious differences with many of the ancient religions, such as Judaism, Christianity, Islam, Hinduism, and Buddhism comprising writings that detail or expound the transformational power of suffering. In the mid-20th century, psychologists, disillusioned with the negative focus of Freudian psychoanalysis and Skinnerian behaviourism, turned their attention to a more positive psychology. Abraham Maslow and other humanistic psychologists encouraged the study of how life crises may facilitate positive change and promoted an interest in the growth needs (as opposed to the deficiency needs) of individuals. A number of prominent theorists were influential in encouraging this interest, in 1964, Caplan, a pioneer of community psychiatry, asserted that life crises are turning points that represent opportunities, and in 1975, Finkel discussed the concept of stren-conversion whereby traumas are converted into strens or “growth-potentiating experiences” (p. 173) through cognitive processes.

However, it was not until the 1980s and 1990s that scholars began to develop a voracious research interest in the area, and over the next two decades this interest grew almost exponentially. The rapid intensification of interest was such that in 2009, Tennen and Affleck identified that over 100 empirical studies had been carried out in the area of growth in the space of a decade. These studies, and others carried out since that review, have explored growth

resulting from an extensive and diverse variety of distressing experiences such as, but not restricted to, cancer (e.g., Arpawong, Richeimer, Weinstein, Elghamrawy & Milam, 2013; Cordova, Cunningham, Carlson, & Andrykowski, 2001; Helgeson, 2010; Moore et al., 2011; Schroevers & Teo, 2008), sexual assault (e.g., Frazier, Conlon, & Glaser, 2001), bereavement (e.g., Currier, Mallot, Martinez, Sandy, & Neimeyer, 2013), childhood sexual abuse (e.g., Neumann & Gamble, 1995), combat (e.g., Bush, Skopp, McCann, & Luxton, 2011), the Holocaust (e.g., Auerhahn, Laub, & Peskin, 1993), having a child with down syndrome (e.g., King, Scollon, Ramsey, & Williams, 2000), visible impairments (e.g., Salick & Auerbach, 2006), surviving a stroke (e.g., Gillen, 2005), injury (e.g., Wadey, Evans, Evans, & Mitchell, 2011), army deployment (e.g., Gallaway, Millikan, & Bell, 2011), the loss of a child (Polatinsky & Esprey, 2000), and substance abuse (e.g., McMillen, Howard, Nower, & Chung, 2001).

Adversity

To incorporate the wide range of experiences identified in this thesis as being distressing, the terms *adversity* or *adversity-related experiences* are used in preference to the terms *stressor/stress experience*, or *trauma/traumatic event*. The terms stressor and stress experience may include experiences that, although negative, do not always encompass the fundamentally distressing aspects that may promote growth. For example, Pensgaard and Ursin (1998) identified in a sample of elite athletes that expectations, the coach, and competition were included in athletes' identification of stress experiences, yet it is unlikely that they could be characterised as being distressing enough to be conducive to growth. Furthermore, in a review of psychological resilience, Fletcher and Sarkar (2013) identified the (negative) value-laden connotations associated with the term adversity as opposed to the more neutral term stressor. They explained that stressors can refer to ostensibly positive life events, such as starting a new job. So, although a number of stressors identified in this thesis (for example, the developmental stressors in chapter three) are identified as adversities, stressor and stress experiences as overarching terms were not considered appropriate to use. The term trauma is associated with the diagnostic criteria of posttraumatic stress disorder (PTSD) as defined by DSM V (American Psychological Association, 2013), which specifies the characteristics of a traumatic event. In this context a traumatic event involves actual or threatened death, serious injury, or sexual violation. Given that many of the distressing experiences identified, for example, relationship breakdown, do not fit these criteria, this term has been avoided where possible. In summary, the term *stressor* is considered too broad and too neutral, and the expression *traumatic event* is considered too specific to refer to the wide

range of distressing experiences considered in this thesis, accordingly, the term *adversity* is used.

The concept of adversity has received increasing interest over the past decade despite inconsistencies in its conceptualisation. Early researchers in the field of resilience used the term *adversity* without a clear definition, for example, even in his seminal paper on resilience in the face of adversity, Rutter (1985) failed to conceptualise what adversity means. This failure has been replicated through the literature with the term being used interchangeably with stress and/or trauma (e.g., Kubiak, 2005). In an attempt to address this conceptual issue, several researchers have endeavoured to define adversity. Luthar and Cicchetti (2000) developed an operational definition of adversity in the context of resilience and asserted that adversity constitutes a risk that involves negative life experiences and is “statistically associated with adjustment difficulties” (p. 858). Thus, they implied that an experience is adverse if the majority of individuals experiencing the event would have equivalent difficulties coping with the outcomes. This in its current form would exclude the inclusion of a number of experiences that elite athletes refer to as distressing (e.g., performance slumps, repeated non-selection to teams). However, Luthar and Cicchetti also emphasised that adversity must be considered within a contextualised environment. Accordingly, it is reasonable, within the confines of their definition, to consider adversity as an experience or event that *in a specific population* the majority of individuals would find traumatic. To illustrate, a shoulder injury for a sedentary individual may not be defined as an adversity but for an elite athlete it may be considered so, and as such it is the subjective evaluation or appraisal of such demands that determines their severity (Lazarus, 1966, 1999). In a study that addressed workplace adversity and resilience, Jackson, Firtko, and Edenborough (2007) provided a wider conceptualisation of adversity and defined it as being “the state of hardship or suffering associated with misfortune, trauma, distress, difficulty, or a tragic event” (p. 3). This definition encompasses experiences that individuals may find distressful and incorporates an affective and cognitive aspect which allows for an individual’s perceptions of an event to be salient. As Morris, Shakespeare-Finch, Rieck, and Newbury (2005) remarked, “the effect that an event has on the individual is ultimately subjective, as it is the individual’s perceptions that allow for the event to be comprehended as traumatic” (p. 576). This complements Rutter’s (1985) assertion that when helplessness occurs as a result of adversity, it is possible that one adversity will lead to another; this suggests that outcomes, such as poor mental health and maladaptive behaviours that may occur as the result of adversity may be perceived as an adversity themselves particularly if normal functioning is affected.

In relation to sport and performance, sport psychology researchers have typically adopted a broad perspective of adversity, exploring sexual harassment or abuse (Fasting, Brackenridge, & Walseth, 2002; Tamminen, Holt, & Neely, 2013), depression (Mummery, 2005; Galli & Reel, 2012a), emotional abuse or bullying (Stirling & Kerr, 2008; Tamminen et al., 2013), eating disorders (Papathomas & Lavalley, 2010; Tamminen et al., 2013), and injury (Wadey et al., 2011; Galli & Reel, 2012a). In addition to these adversities, in each of the studies in this thesis, the swimmers or the swimmers' coaches identified that there were occasions when their responses to adversities became adversities in their own right (cf. Jones & Bright, 2001; McMahon et al., 2003).

Terminology – Growth

There is a lack of consensus in the literature about what terminology should be used to conceptualise growth, or more broadly speaking, the positive outcomes of adversity. Joseph, Linley and Harris (2004) illustrated this when they identified that “the published self-report scales that measure growth following trauma and adversity have been developed by authors from different academic and professional backgrounds who have used different labels to describe what may or may not be essentially the same concept” (p. 85). They argued that there is no agreed taxonomy of growth which they perceived has caused problems for researchers developing measurement tools and attempting to explore the concept of growth. The extent of this issue is illustrated in a trawl of the wider literature. In incorporating studies from the trauma, oncology, and general psychology literature, it is evident that there are a number of terms that have been used to conceptualise growth, including: *perceived benefits* (Affleck, Tennen, Croog, & Levine, 1987), *positive changes in outlook* (Joseph, Williams, & Yule, 1993), *stress-related growth* (SRG; Park, Cohen, & Murch, 1996), *posttraumatic growth* (PTG; Tedeschi & Calhoun, 1996), *thriving* (Carver, 1998), *positive by-products* (McMillen, Howard, Nower, & Chung, 2001), and *positive adaptation* (Linley, 2003). The most common term used in the wider trauma and oncology literature is PTG but even this is limited by a lack of clear definition. In an article that introduced the affective cognitive processing model of posttraumatic growth (ACPM of PTG), Joseph, Murphy, and Regel (2012) identified that unlike posttraumatic stress disorder (PTSD) “there is no gold standard definition of posttraumatic growth” (p. 318).

A dilemma that researchers face involves deciding what terminology to use and assessing the implications of what that choice means in theoretical and conceptual terms. A number of theorists have attempted to explore whether there are any fundamental differences in the different constructs. Joseph et al. (2004) explored the conceptual and theoretical

similarities and differences between the PTG Inventory (PTGI; Tedeschi & Calhoun, 1996), the Perceived Benefit Scale (PBS; McMillen & Fisher, 1998), and the Thriving Scale (TS; Abraido–Lanza, Guier, & Colon, 1998). They determined that “despite difference in terminology and structural conceptualisations, growth may be best considered as a unitary phenomenon” (Joseph et al., 2004, p. 92), and that “the various measures of positive change all appear to be assessing the same broad construct, a finding that should facilitate the integration of different theoretical and empirical traditions in the study of positive change following trauma and adversity” (p. 94). However, this view is not without its critics. Others have pointed to conceptual divergence particularly between growth and finding (or perceiving) benefits (Aspinwall & Tedeschi, 2010; Sears, Stanton, Danoff–Burg, 2003). It has been argued that growth refers to positive and enduring change experienced through the struggle with a major crisis (see Tedeschi & Calhoun, 2004), whereas finding benefits entails the acknowledgement that something positive has come of an adverse experience (see Helgeson, Reynolds, & Tomich, 2006). Other researchers have identified that there are differences in conceptualisation of some of the growth–related concepts which tend to revolve around the level of stress exposure (Cho & Park, 2013) and the severity of the trauma. To elucidate, Park (2009) identified four main differences between SRG and PTG relating to: (a) the severity of the event (with PTG involving a more severe occurrence), (b) the mechanism of growth (PTG assumes a restructuring of basic life assumptions whereas SRG involves making meaning out of the stressor), (c) the commonality of the occurrence (with PTG being less common than SRG), and (d) the duration of change (PTG is assumed to involve an enduring and permanent change whereas SRG may involve a regression back to former thoughts, beliefs, and behaviours). McMillen et al. (2001) used the term *positive by-products* as the authors perceived that the term growth has connotations that imply that positive changes are internal, whereas they claim that some of the positive changes that occur after adversity are relational; nevertheless, this term has not yet been widely adopted. To overcome some of the issues highlighted, Linley and Joseph (2004) adopted a collective term to encompass the associated terms, namely, *adversarial growth*. Other terms, such as resilience, hardiness, optimism, mental toughness, and sense of coherence are used to conceptualise related, but fundamentally different concepts as they involve the presence of certain personal characteristics that allow people to manage adversity satisfactorily (Tedeschi & Calhoun, 2004) but do not necessarily involve positive change.

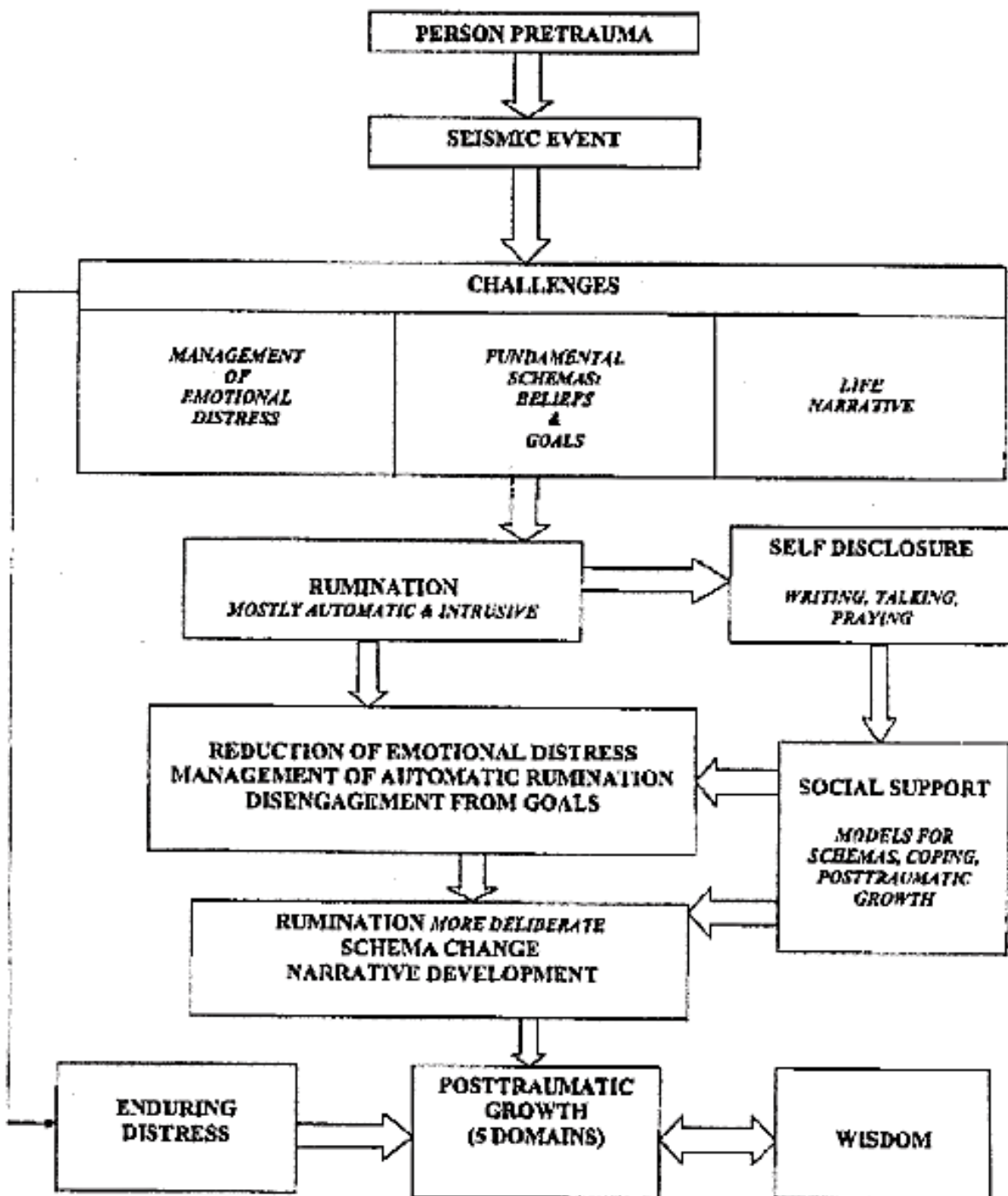
Models of Growth

Models of growth can be categorised into two broad areas: those that conceptualise growth as process and those that conceptualise growth as coping. One model, the Janus–face model (Maercker & Zoellner, 2004, Zoellner & Maercker, 2006a) has incorporated both aspects.

Growth as process. A number of models have been developed that focus on cognitive processes such as appraisal and ruminations. Appraisal refers to how an individual interprets an event, for example as challenging or threatening (e.g., Dekel & Nuttman–Shwartz, 2009). Ruminations refer to the repetitive thinking that occurs after an event is appraised as distressing. These ruminations may be intrusive or thoughtfully reflective (Lindstrom, Cann, Calhoun, & Tedeschi, 2013). These models are influenced by Janoff–Bulman’s (1989) theory of shattered assumptions which advocated that people engage in a cognitive struggle to challenge their assumptive world following negative events. Her work has had considerable influence on the models proposed in the growth literature specifically, the functional descriptive model (FDM; Calhoun, Cann, & Tedeschi, 2010; Calhoun & Tedeschi, 1998; Tedeschi & Calhoun, 1995, Tedeschi & Calhoun, 2004), the organismic valuing theory of growth (OVT; Joseph & Linley, 2005), the ACPM of PTG (Joseph et al., 2012).

Functional Descriptive Model. Tedeschi, Calhoun, and colleagues expanded on Janoff–Bulman’s work and developed a FDM of PTG (Calhoun et al., 2010; Calhoun & Tedeschi, 1998; Tedeschi & Calhoun, 1995, Tedeschi & Calhoun, 2004). The model (see Figure 1) is framed in a way that recognised that PTG is a process which begins when an individual experiences an event that challenges their assumptive world. This challenge to the individual’s schematic assumptions is significant and distressing enough to facilitate the cognitive processing necessary for growth ensues. The early response to the event and the subsequent distress involves automatic cognitive processing in the form of intrusive thoughts and images which tends to be negative in nature. Over a period of time this process, which the authors posited requires the presence of a considerable level of distress, leads to “disengagement from previous goals and assumptions” (Tedeschi & Calhoun, 2004, p. 8). They argued that the distress ensures that the cognitive processing remains active which is important to facilitate growth. Over time, the emotional distress may reduce as the individual becomes disengaged from their previous goals and the rumination becomes more deliberate as the schema changes. The authors argued that whether an individual can benefit in the aftermath of the event is partially dependent on the individual’s personality characteristics, specifically,

Figure 1

A Model of Posttraumatic Growth

Reproduced from Tedeschi and Calhoun (2004, p. 7)

they identified that openness to experience and extraversion were modestly related to posttraumatic growth, whereas other ‘Big Five’ personality dimensions (conscientiousness, agreeableness, and neuroticism) tended not to be related. They also identified a positive relationship between optimism and growth as measured by the PTGI (Tedeschi & Calhoun, 1996). The likelihood of PTG is increased and expedited if the individual is supported by compassionate and understanding others. This is particularly the case if the support remains stable and consistent over time, and if new perspectives or narratives are introduced that can be incorporated into schema change. According to the model, growth is identifiable through the five domains that are measured in the PTGI namely: a greater appreciation of life and changed sense of priorities; warmer, more intimate relationships with others; a greater sense of personal strength; recognition of new possibilities or paths for one’s life; and spiritual development (Tedeschi & Calhoun, 1996). Recently, Hefferon et al. (2009) identified the pertinence of the introduction of an additional domain which centred on a new awareness of the body, however, they suggested may only be applicable to PTG in the context of illness.

The Organismic Valuing Theory of Posttraumatic Growth. Although they acknowledged that FDM provided the most comprehensive theoretical explanation of growth to date, Joseph and Linley (2005) argued that the model failed to identify *how* growth occurs. Consequently, they proposed an organismic valuing theory (OVT) of growth which recognises that individuals are intrinsically motivated towards growth. They argued that prior to a traumatic event, an individual may hold beliefs that the world in which they live is relatively safe. A traumatic event can cause a shattering of these beliefs and instigates the individual to question what they believe to be true and seek meaning in their experience. Joseph and Linley incorporated four aspects that they considered to be fundamental in facilitating the growth process following a traumatic event into the model. They comprised, firstly, a drive for completion which involves the cognitive–emotional integration of new trauma–related material. Secondly, they emphasised the differences between the cognitive processes of assimilation (incorporating the new information into current worldview) and accommodation (development of new worldview to include new information). Thirdly, they incorporated an appreciation of the differences between meaning as comprehensibility versus meaning as significance, whereby comprehending why an event occurred is not alone sufficient for growth but must be accompanied an understanding of the significance of the event. Finally, in the development of the model they acknowledged the hedonic (subjective wellbeing; SWB) and the eudemonic (psychological wellbeing; PWB) theoretical traditions.

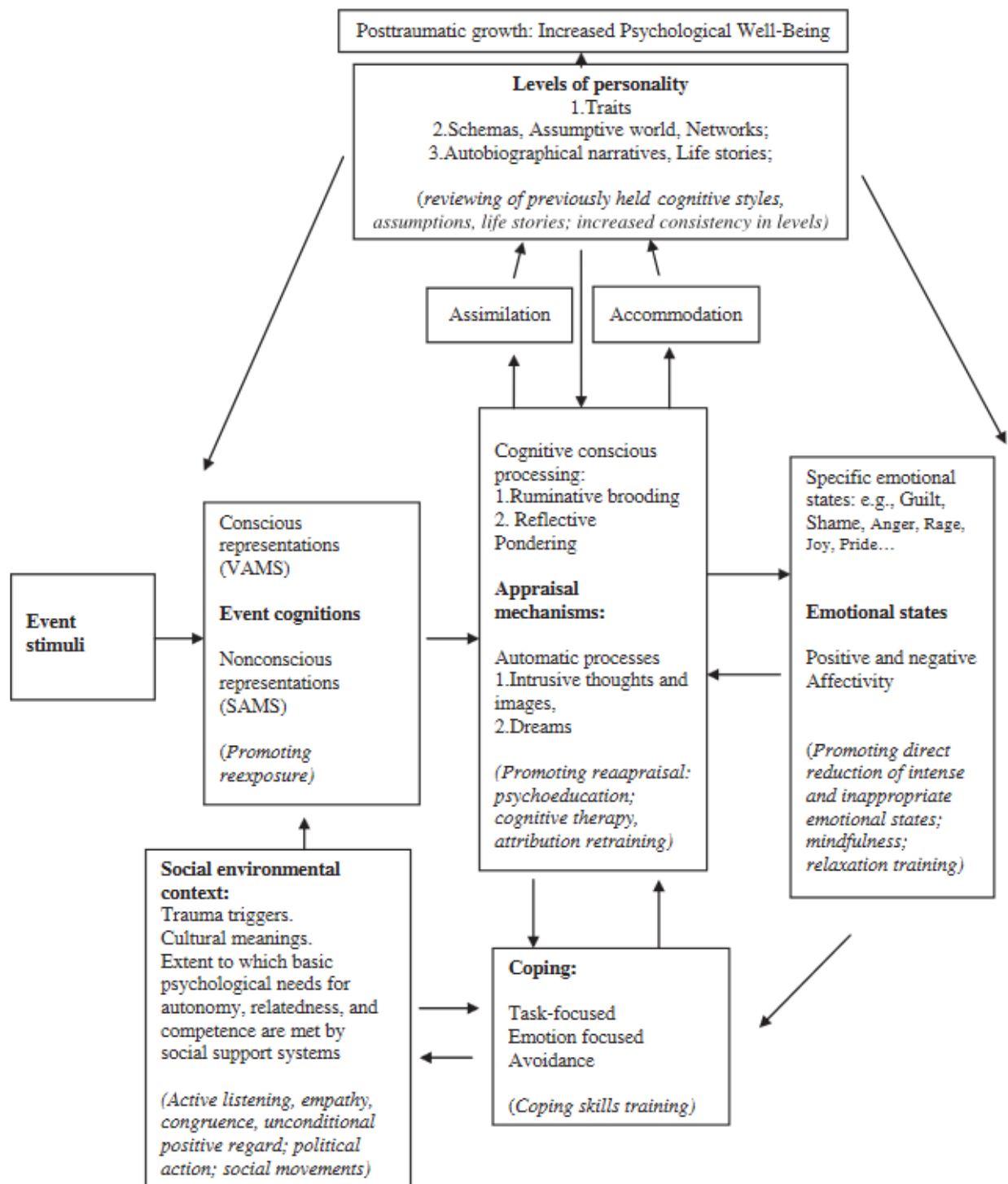
The authors argued that there were three possible outcomes of the cognitive–emotional

processing that occurs in the aftermath of trauma or experiencing adversity, assimilation, positive accommodation, and negative accommodation. When intrusive and avoidant states are no longer evident this can be explained through the incorporation of the event-related information into existing schema (assimilation), or the revision of existing schemas to include the new information (accommodation). Intrinsically people are driven towards growth and positive accommodation, however, this can only occur in a conducive social environment that facilitates satisfaction of the basic needs of autonomy, relatedness, and competence. Assimilation is identifiable when an individual fails to engage with the significance of the event, and returns to a functioning state that resembles their pre-event self, however, in this instance they are increasingly vulnerable to future traumatisation. Negative accommodation occurs when the individual revises their current assumptions, accommodates the traumatic information into new schemas, and alters their world view in an inherently negative way. The model proposed that growth occurs when, in seeking meaning, individuals adopt positive changes to their schemas (positive accommodation) bringing about an increased value in their relationships and view their existence in a more positive manner (Linley & Joseph, 2011).

The Affective-Cognitive Processing Model of PTG. Most recently, Joseph, Murphy, and Regel (2012) proposed an ACPM of PTG to consider the relationship between PTG and posttraumatic stress. This is pertinent in considering the findings of a meta-analysis (Helgeson, Reynolds, & Tomich, 2006) which identified that increased PTG is associated with increased intrusive stress experiences normally associated with PTSD. According to the model when an event occurs that has negative or traumatic aspects, event cognitions occur that are at both conscious and unconscious levels. This leads to cognitive appraisal in the form of ruminative brooding or reflective pondering at a conscious level, and the presence of intrusive thoughts and dreams at an unconscious level. The individual's emotional state will then be affected by how the event is appraised. As a consequence of, and depending on the emotional state, coping strategies are put in place which then may impact upon further cognitive appraisal. This cycle of feedback continues indefinitely as the individual seeks meaning in their experience. This process is influenced by the social environment, the satisfaction of the basic psychological needs of competence, relatedness, and autonomy, and levels of personality. Discrepancies are resolved through accommodation or assimilation in accordance with the propositions of OVT (Joseph & Linley, 2005).

Whilst the model is of use in exploring adversarial growth and marked a progression

Figure 2

Posttraumatic affective-cognitive processing model

Reproduced from: Joseph et al. (2012, p. 321).

from the early attempts at explanation, it has inconsistencies that are not fully explained by the authors. The schematic model (see Figure 2) suggested that growth can occur through either assimilation or accommodation, however, the informing literature is clear (e.g., Joseph & Linley, 2005) that assimilation results in the incorporation of trauma-related information into existing schemas but does no more than return the individual to a baseline level of functioning, which cannot, by definition, be referred to as growth. Additionally, the authors appear to have drawn on the dual representation theory of PTSD (see Brewin, Dalgleish, & Joseph, 1996), although is not acknowledged in the model's explanation. The dual representation theory suggested that event cognitions and appraisals moderated by personality and social environment may, when negative accommodation (or potentially assimilation) occurs, result in PTSD rather than PTG. This is an area that warrants further investigation in evaluating the ACPM.

Growth as coping. In contrast to the models described that are characterised by cognitive engagement and schematic change, other models have conceptualised growth as a coping process. The link between growth and coping is not new; the multidimensional coping inventory (COPE; Carver, Scheier, & Weintraub, 1989) included a scale entitled *positive reinterpretation and growth* (p. 269) which the authors identified as the process that occurs when an individual deals with the negative emotions associated with a stressor. What follows are the active endeavours to construe the stressful transaction in positive terms. In 1992, Schaefer and Moos addressed adaption to stressful life events using a stress and coping framework. At the time, even with the growth research in its infancy and the debate about the veridicality of growth not yet articulated by those researchers who have questioned the authenticity of reports of growth, Schaefer and Moos acknowledged that positive outcomes may be perceived as entailing a defensive behaviour which may impact on whether reports of growth reflect *actual* growth (viz. Frazier et al., 2009). A number of researchers have been convinced by this argument and have explored aspects of growth as being representative of coping.

Cognitive Adaption Theory. Many theories that posit that growth may represent a coping process have been influenced by Taylor's (1983) cognitive adaption model of adjustment to threatening events which was grounded in the experiences of cancer sufferers. The model focused on the premise that cognitive processes that result in benefit finding are essentially coping mechanisms to relieve stress. She argued that adjustment following threatening events involves three themes: a search for meaning in the experience, an attempt to regain a sense of mastery, and an attempt to restore self-esteem through self-enhancing

evaluations. In her discussion of the evidence supporting the search for meaning in cancer patients, she described the causal attributions that individuals linked to their cancer. However, she also suggested that an element of this involved the cancer patients searching for the significance of the experience, for example, going beyond the causal attributions to reflecting upon the impact that the cancer has on their lives. The importance of significance is analogous with the more recent models that have explored the role that meaning has in making sense of traumatic and stressful experiences, such as the integrated model of meaning (Park, 2010) and OVT (Joseph & Linley, 2005). Gaining a sense of mastery was represented by beliefs about self-control that had been undermined by the cancer. Taylor reported that many of her participants discussed adopting a positive attitude about the likelihood of the return of the cancer, while others talked about adopting proactive behavioural changes to prevent the cancer from returning. The latter point in particular, signifies an attempt to restore the perceptions of control that have been undermined by the cancer. The process of self-enhancement was a strategy to improve the perceptions of the self, restore self-esteem, and was represented by a large proportion of her respondents identifying positive rather than negative changes that occurred as a result of the cancer. She also found that, contrary to expectations, the women involved in her study engaged in downward comparisons with women less fortunate than themselves. Fundamental to Taylor's model was the premise that the cognitions that these three themes represent are partly dependent on illusions; these illusions are perceived as inherently positive and are interpreted as growth.

Integrated model of meaning. A search for meaning is central to Park's (2010) integrated model of meaning making in the context of stress, and although not specific to growth, is crucial to understanding the processes associated with growth. Park identified that "meaning appears particularly important in confronting highly stressful life experiences" (p. 257) and distinguished between two types of meaning – global and situational. Global meaning comprises an individual's beliefs, goals and subjective feelings which will impact upon the appraisal of a potentially stressful event. Situational meaning involves making meaning of a specific situation. When there are discrepancies between these different types of meaning, a process ensues that involves both automatic and deliberate ruminations, assimilation and accommodation, and searching for some significance. Importantly for growth research, Park also distinguished between "meaning-making efforts" and "meaning made", the former involving processes in which people engage to reduce the discrepancy between appraised meaning of events and global beliefs, while the latter involves the end result of attempts to reduce discrepancies between global and situational meaning.

A two-component model. Some scholars have questioned the veridicality of growth experiences (e.g., Maercker & Zoellner; 2004; Park, 2004; Zoellner & Maercker, 2006a; Wortman, 2004) and remain unconvinced by some accounts of growth in the literature that claim to signify the presence of PTG and have argued that reports of growth are representative of motivated illusions (cf. Taylor, 1983) or adherence to a cultural script. Consequently, Maercker and Zoellner (2004) suggested that following adverse events individuals engage in a process of self-deception in an attempt to convince themselves of positive outcomes. They proposed a two-component model which addressed the conceptual distinction between functional (or constructive) and illusory growth. They suggested that growth is reminiscent of a Janus-faced character and proposed the Janus-face model of self-perceived growth which comprises a functional (or constructive) and an illusory side to growth. The functional, constructive, self-transcending side is analogous with the FDM proposed by Tedeschi and Calhoun (2004). However, the illusory or dysfunctional side (Maercker & Zoellner, 2004), they argued, involves self-deception and is associated with denial, avoidance, wishful thinking, self-consolidation, and palliation which may occur following adversity. The identification of an illusory aspect to growth has its origins in Taylor's (1983) theory of cognitive adaptation to threatening events and her theoretical explanation of *positive illusions*, and Filipp's (1999) identification of attentive (viz. positive illusions, self-enhancing illusions, hope) and comparative (viz. social and temporal comparisons) coping processes.

The model is distinct in that it acknowledges the existence of both components that are presumed to co-exist, although they explain that at any given time there may be more aspects of one component than the other (Zoellner & Maercker, 2006b). The authors stressed that the illusory side should not be interpreted as being a precursor to maladjustment. They argued that as a coping mechanism the illusory side may act as a short term palliative coping strategy that in itself has neither long term negative or positive consequences. On the contrary however, the constructive side of growth is positively associated with adjustment and wellbeing in the long term. Evidence supporting a two-component model of growth has been reported in victims of stressful life events (McFarland & Alvaro, 2000), parents of children treated for leukaemia (Best, Streisand, Catania, & Kazak, 2001), cancer patients (Sumalla, Ochoa, & Blanco, 2009; Widows, Jacobsen, Booth-Jones, & Fields, 2005), motor vehicle accident survivors (Zoellner, Rabe, Karl, & Maercker, 2008), and an experimental study that compared traumatic autobiographical events with a lesser traumatic events (Kastenmüller, Greitemeyer, Epp, Frey, & Fischer, 2012).

Identification of Growth

Given the surge in the number of studies exploring the phenomenon of growth following adversity, it is unsurprising that a variety of different measures, both qualitative and quantitative, have been used to identify and explore the concept. However, both qualitative and quantitative approaches have tended to rely on self-reporting which can be appraised as being inherently open to bias, and which Cho and Park (2013) argued is “a severe limitation” (p. 76). They argued that this bias may be partially addressed through the use of longitudinal studies that can assess the development of growth over prolonged periods of time, or by the use of research studies that provide corroborating evidence from individuals’ social networks.

Qualitative Approaches. Qualitative research allows an intricate in-depth consideration of growth that allows access to the complex, interwoven, and sometimes contradictory narratives that participants often construct about their experiences. These nuanced constructions may be lost in quantitative research, indeed, in a randomised controlled trial of cognitive behavioural therapy for PTSD, Zoellner, Rabe, Karl, and Maercker, 2011) argued that “quantitative measures alone are not sufficient to capture the phenomenon. Qualitative studies . . . may be of unique additional and heuristic value to the field” (p. 211). In a discussion about the use of qualitative methods to explore the related concept of thriving, Massey, Cameron, Ouellette, and Fine (1998) elaborated on the opportunities that are opened up when qualitative research is used to explore growth and thriving: (1) qualitative methods help researchers understand how respondents make meaning of their lives without limiting it by imposing a priori assumptions; (2) important distinctions about various aspects of the participants’ experiences can be distinguished by the respondents in their narratives; this information can sometimes be lost in quantitative research; (3) it enables researchers to access the trajectory of how thriving unfolds over time; (4) it shows researchers that positive outcomes are only meaningful within a given context; (5) the revelations of participants allow the researcher into the free spaces where participants are able to re-vision their pasts and re-imagine their futures; (6) qualitative research unravels and invites respondents’ discussions of paradoxes without the constraints of the binaries of quantitative work; (7) qualitative research is existentially charged and opens up discourses of both thriving and despair which are often interwoven.

Researchers who have utilised qualitative methods have tended to use semi-structured interviews to access participants’ accounts (e.g., Gillen, 2005; Salick & Auerbach, 2006). In a systematic review of the qualitative literature exploring PTG and life threatening physical illness, Hefferon et al. (2009) identified that out of 57 studies, 27 involved semi-structured

interviews only, with a further 25 using semi-structured interviews and mixed methods for data collection. The five remaining studies involved unstructured interviews, conversations, and open-ended question/written responses. Qualitative research exploring adversarial growth, however, need not be restricted to the use of semi-structured interviews, for example, Pals and McAdams (2004) recommended the use of narrative accounts to explore the development of PTG. They identified the importance of identifying how individuals narrate a traumatic event and make sense of the impact on the self. They stressed the role of cultural narratives (or cultural scripts) in respect of how the narratives are constructed, interpreted, and understood. In a mixed methods study by King et al. (2000), which was not included in Hefferon et al.'s (2009) review, 87 parents of children with Down Syndrome (DS) wrote narratives about finding out that their child had DS and found that having a coherent story which featured foreshadowing and a happy ending, tended to related to a heightened SWB.

Quantitative Approaches. Studies that have utilised a quantitative approach to measuring growth have tended to rely on the use of measurement scales. Tennen and Coyle (2010) identified an upsurge in the development of scales that purport to measure growth in the context of adversity. The most widely used are: the PTGI (Tedeschi & Calhoun, 1996), the PBS (McMillen & Fisher, 1998), and the TS (Abraido-Lanza et al., 1998) which are commonly used in research studies either as standalone instruments (e.g., Polatinsky & Esprey, 2000) or as part of a mixed methods study (e.g., Shakespeare-Finch, Martinek, Tedeschi, & Calhoun, 2013). Tennen and Coyle (2010) refer to these scales as “positive psychology’s operationalisation of posttraumatic growth” (p. 22) yet express concern as to whether individuals can accurately portray the growth that they claim to have experienced.

The PTGI, which was developed to assess positive outcomes in individuals who have experienced adverse events, is the most widely used measure of PTG. It is a multidimensional 21-item measure answered on a six-point Likert scale which relates to the five domains of *New Possibilities, Relating to Others, Personal Strength, Spiritual Change, and Appreciation of Life*. In their own study Tedeschi & Calhoun (1996) found that the PTGI has good internal consistency, acceptable test-retest reliability, and scores on the scale tend to be normally distributed and is modestly related to optimism and extraversion. To assess the scale further, Smith and Cook (2004) examined whether measurement approach moderated the nature of the relationship between traumatic event exposure and growth and found that the PTGI is a sound instrument for assessing growth, however, they posited that the PTGI may underestimate the extent to which growth occurs in the areas of Personal Strength and Relating to Others. Moreover, Shakespeare-Finch, Martinek, Tedeschi and Calhoun (2013) qualitatively assessed

the content validity of the scale by asking participants to complete the PTGI and also take part in semi-structured interviews. They found that a positive relationship between the constituent themes identified from the qualitative interviews and the five factors of the PTGI.

Despite the PTGI measuring a multidimensional concept (cf. Morris et al., 2005), studies using the scale have often engaged in inconsistent reporting, with some papers publishing domain scores (e.g., Schroevers & Teo, 2008) whilst others have reported on a single PTG score (e.g., Peterson, Park, Pole, D'Andrea, & Seligman, 2008). It is more useful and conceptually more appropriate to consider growth as a multidimensional rather than a unidimensional concept as growth can occur in a number of areas in a person's life. The potentially distinct levels of growth in these areas may involve disparate psychological processes (Janoff-Bulman, 2004), and accordingly, an individual may report high levels of growth in one domain (e.g., new possibilities) but lower levels in another (e.g., spiritual change). Interestingly, despite models of growth (e.g., FDM, OVT, ACPM) displaying a propensity to treating growth as a process, the wording of the PTGI treats possible benefits as outcomes indicating further incongruence in the comprehension of growth.

Adversity and Growth in the Sport Performance Literature

Interest in the growth potential of adversity in sport has grown steadily since the late 1990s and has become the focus of a number of research studies. This interest has been fuelled not only by a benevolent interest in the positive outcomes that may occur following adversity, but also by identification of the potential positive consequences that may be experienced in the performance domain and the practical implications that this may have. Indeed, Collins and MacNamara (2012) speculated that talented youth athletes can often benefit from, or even need, a variety of challenges to facilitate eventual superior adult performance. In a study of psychological resilience in Olympic champions, Fletcher and Sarkar (2012) found that “most of the participants argued that if they had not experienced certain types of stressor . . . including highly demanding adversities such as parental divorce, serious illness, and career-threatening injuries, they would not have won their gold medals” (p. 672). The suggestion that the negotiation of adversity may have facilitative components that could enable or encourage positive performance in athletes is therefore clearly of academic and applied interest.

Adversity in sport performers. Engagement in competitive sport confers upon individuals the membership of a micro culture where they are socialised into accepting and internalising specific norms, values, and behaviours (Hanrahan, 2010). The identification of this micro culture has implications for the context in which an adversity may occur (Luthar & Cicchetti, 2000). Within the context of competitive sport a particular event may be appraised

as constituting an adversity for an athlete. This is qualitatively different from how that same event may be appraised as insignificant or inconsequential by a non-athlete. To elucidate, although some events, such as a minor injury, may be experienced by the wider population, the impact may be insignificant for a non-athlete and be appraised as a nuisance. The same injury may be catastrophic for an elite athlete whose performance depends on being injury-free and thus the event is appraised as being threatening to one's identity and constituting adversity. Therefore it is appropriate that researchers have identified and explored the emergence of positive outcomes from a number of adversities, some which are analogous with those experienced by the wider population, and others which are more specific to the sporting context. The adversities addressed in published studies which are analogous with those experienced by the wider population include: sexual harassment or abuse (Tamminen, Holt, & Neely, 2013), depression (Galli & Reel, 2012a), cancer (McDonough, Sabiston, & Ullrich-French, 2011; Sabiston, McDonough, & Crocker, 2007) emotional abuse or bullying (Tamminen et al., 2013), eating disorders (Tamminen et al., 2013), injury (Galli & Reel, 2012a; Podlog & Eklund, 2006; Podlog et al., 2013; Sarkar, Fletcher, & Brown, 2015; Tamminen et al., 2013; Udry, Gould, Bridges, & Beck, 1997; Wadey et al., 2011), political unrest (Sarkar et al., 2015), death of a family member (Sarkar et al., 2015), and acquired disability (Day, 2013; Crawford, Gayman, & Tracey, 2014). Those which are specific to sport include: performance slumps (Galli & Reel, 2012a; Tamminen et al., 2013), repeated non-selection (Sarkar et al., 2015), coach conflict (Tamminen et al., 2013) significant sporting failure (Sarkar et al., 2015), and loss of funding or scholarship (Galli & Reel, 2012a). However, despite the differentiation between the non-sporting adversities and the sporting adversities it is appropriate to explore them collectively in a sporting population. Although engagement in sport may not be directly responsible for certain adversities, Jones, Glintmeyer, and McKenzie (2005) explored the case of Anne, a former elite swimmer and identified that "the complex social context of high performance swimming, the perceptions surrounding women's sport, her personal biography, family relationships, and the dynamic interaction between these factors and others, all contributed to producing the potential to trigger such a response [bulimia]" (Jones et al., 2005, p. 385).

Growth and related concepts. Given the lack of clarity over the use of terminology in the wider literature, it is unsurprising that there is little consensus about the growth nomenclature in sport. In the context of the aforementioned adversities, researchers interested in sport performance have explored positive outcomes and benefits (Udry et al., 1997), positive consequences (Podlog & Eklund, 2006), perceived benefits (Wadey et al., 2011), PTG

(Crawford et al., 2014; Day, 2013; McDonough et al., 2011; Sabiston et al., 2007), and SRG (Galli & Reel, 2012a; Podlog et al., 2013) experienced by recreational and competitive participants. Several researchers have specifically studied the notion of adversarial growth in athletes competing at non–elite (Galli & Reel, 2012b) and elite (i.e., Sarkar et al., 2015; Tamminen et al., 2013) levels. In addition to the different populations that have been investigated, and the assorted growth terminology used, the studies also tend to differ in their theoretical and conceptual foundations underpinnings and the methodological approaches used.

It is widely accepted that Udry et al. (1997) were the first researchers to address the notion of positive outcomes from adversity in sport. However, their focus was to extend the literature regarding the psychological processes in athletic injury rehabilitation rather than to explicitly contribute to the growth literature. Consequently, their study which utilised semi–structured interviews as part of a retrospective design was theoretically underpinned by the literature pertaining to psychological models of injury response, and stage and adjustment models (e.g., Heil, 1993; Kubler–Ross, 1969). In two studies exploring the experiences of injured athletes, Wadey and colleagues (2011, 2013) also drew on the extant literature addressing injury rehabilitation. In both studies, the first which involved content analysis of semi–structured interviews to address the antecedents and mechanisms underlying the perceived benefits following sport injury (Wadey et al., 2011), and the second, which utilised semi–structured life world interviews analysed using content analysis to examine coaches’ perceptions of athletes’ SRG following sport injury (Wadey, Clark, Podlog, & McCullough, 2013), the theoretical focus was primarily on Wiese–Bjornstal, Smith, Shaffer, and Morrey’s (1998) integrated model of response to sport injury. This model proposed that athletes could surpass their pre–injury level of functioning and hypothesised that perceived benefits are influenced by cognitive appraisal and moderated by personal and situational factors. Other studies which focused on the experiences of injury in sport (Podlog & Eklund, 2006; Podlog et al., 2013) were informed by self–determination theory (SDT; Deci & Ryan, 1985, 2007) which may account for an emphasis in their findings on the importance of the basic psychological needs of autonomy, competence, and relatedness in the growth experience.

Nevertheless, the majority of sport performance growth studies have been informed by the mainstream growth theories and models that are prevalent in the wider growth literature with the majority acceding that growth occurs when an individual’s world view has been shattered (see Janoff–Bulman, 1992). The majority of studies have been cognisant of, and discussed the relevance of Joseph and Linley’s (2005) OVT, and Tedeschi and Calhoun’s (2004) FDM of PTG. In several studies McDonough and colleagues investigated the

psychosocial experiences of cancer survivors involved in dragon boating programmes. Involvement in the programmes is designed to facilitate the women's sense of personal control, development of new identities as athletes, and overcome physical challenges. Two of their studies have specifically focused on PTG (McDonough et al., 2011; Sabiston et al., 2007). The first (Sabiston et al., 2007), found that the social support from women with similar challenges and experiences contributed to positive psychological growth. At a conceptual level, the researchers identified that the women's experiences corresponded with the model of FDM of PTG (Tedeschi & Calhoun, 2004) which they used as a starting point to frame their results. However, they did acknowledge that there were some differences surrounding the specific focus of physical activity and the inclusion of personal control. The second study (McDonough et al., 2011) presented a novel finding of the link between social relationships, support, and PTG over time.

A number of studies have investigated the experiences of athletes and sport performers who have experienced a wide variety of adversities (Galli & Reel, 2012a, 2012b; Sarkar et al., 2015; Tamminen et al., 2013). In two related studies Galli and Reel examined growth in Division I NCAA athletes. In the first (Galli & Reel, 2012a), a quantitative study, the authors examined adversarial growth in college athletes using the PTGI and identified that the seven vectors of development identified by Chickering and Reisser's (1993) development of college students supported the notion that college may be a growth enhancing experience for students. In their second study, Galli and Reel (2012b) carried out in-depth interviews with 11 athletes to develop a conceptual model of SRG involving (a) personal and sociocultural context, (b) disruption, (c) social support and (d) positive psychosocial outcomes. Tamminen et al. (2013) interviewed five elite female performers about their experiences of adversity and their potential for growth. They found that as the athletes sought and found meaning in their experiences of adversity, they identified opportunities for growth associated with social support and as the performers realised the role of sport in their lives. Other studies have explored PTG in disability athletes (Crawford et al. 2014; Day, 2013). Crawford et al. focused on whether participation in ParaSport following acquired spinal cord injury (SCI) influenced perceptions of PTG and what specific dimensions they reported experiencing. Adopting a phenomenological approach, they explored the experiences of 12 participants using semi-structured interviews to identify five dimensions of growth: (a) injury relevant processing; (b) appreciation for life; (c) reactive behaviour as a result of attempted integration into ParaSport; (d) relating to others; and (e) health and well-being. Through the use of life history interviews, Day (2013) explored Paralympic athletes' lived experiences of becoming physically active

after disability, and how this may have impacted on the development of PTG. She identified three themes that reflected participants' initial physical activity experiences and which were linked to PTG: (a) recognising possibility by acknowledging limitations, (b) responsibility for choice and consequences, and (c) re-establishing and enhancing meaning.

The current position in sport. The existing research has made an important contribution to applying the conceptual models and theories of growth to the adversity-related experiences of athletes and sport performers. However, in following a similar trajectory to the trauma literature, the sport research has focused on growth as an authentic construct underpinned by two mainstream theories namely, OVT and FDM of PTG. In recent years, there has been some advancement on these models, such as in the ACPM of PTG (Joseph et al., 2012) which warrants consideration in the sport performance literature (and is addressed in chapter three), but the premise of authentic or veridical growth remains. Additionally, other than a tangential identification that there may be veridicality issues with growth these have not fully been addressed. Galli and Reel (2012a) questioned the concept of growth as a unitary phenomenon and identified that SRG may not comprise a permanent transformation as in PTG but "individuals who experience SRG may regress toward their former thoughts, beliefs, and behaviours" (p. 298). Tamminen et al. (2013) suggested using quantitative measures to distinguish between the illusion of growth as an emotion-focused coping strategy versus growth as a reality over longer periods of time. Further, Wadey et al. (2013) identified that concerns existed regarding the validity of growth and these concerns were focused on: "motivated illusions, self-presentation concerns, and adherence to a cultural script. . . . [and that] self-reports of SRG is that they could reflect adherence to a cultural script rather than meaningful changes. . . . Taken together, these concerns have led certain scholars to question whether individuals actually experience SRG" (p. 126).

The indication of the presence of a cultural script is of particular interest as in 2013, Lindstrom et al. identified that 98% of their participants had reported having heard or read stories of people who had experienced positive changes as a result of a struggle with adversity. Increasingly, elite athletes who have performed at the highest level have published accounts of their adversity- and growth-related experiences through published autobiographies (cf. Smith & Watson, 2010). These texts provide a privileged insight into elite participation and the athletes' experiences of adversity and the negative and positive outcomes that may be associated with it, but also promulgate a normative response to adversity. Exposure to these powerful narratives about growth in elite sport constitutes a convincing message about how adversity should be negotiated in a competitive sport environment. Accordingly, athletes may

be adhering to a cultural script that motivates them to explicitly identify and report evidence of growth even when there may be little evidence to support their assertions. Although at this juncture researchers from other disciplines e.g., oncology (Sumalla et al., 2009), have started to address these concerns empirically, no sport psychology researchers have addressed the veridicality of growth in athletes. This omission is addressed in chapters four and five which report on studies that have addressed in more detail the veridicality issues that are inherent in the growth literature. The chapters detail the exploration of reports of growth from the perspective of the two component Janus-faced model of growth (Maercker & Zoellner, 2004; Zoellner & Maercker, 2006a).

Elite versus non-elite sport. It is apparent from the discussion of adversity and growth that the contextualisation of adversity is important and thus there is a clear rationale for addressing adversarial growth in competitive sport. However, within this context it is appropriate to consider non-elite and elite as different populations. Identifying whether a sample or an individual is elite is important as Anderson, Hanrahan, and Mallet (2014) have argued elite athletes may have different motivations for participation, different psychological responses to competition, and may experience pressure in different ways to non-elite athletes. Furthermore, there are dominant messages or cultural scripts in elite sport such as the performance narrative (Douglas & Carless, 2006) that non-elite athletes may either be resistant to or, alternatively may not have been exposed to. From a research perspective this is further complicated by the lack of consensus in the sport performance literature about what constitutes elite. Simonton (2014) argued that expertise in a particular domain (e.g., sport) can be classified in multiple ways which makes it difficult for researchers to ascertain what aspects of performance are relevant in defining an individual (or group) as elite. This has been observed in the sport literature; with no agreed definition researchers have utilised their own definitions of what elite means, for example, Hanton, Fletcher, and Coughlan (2005) required that “potential participants were current national squad members and had performed at the highest competitive event in their sport (i.e., Olympic Games, World Championships and/or World Cup)” (p. 1131). Others have defined the term more loosely, for example, Chan and Hagger (2012) stated that their elite participants were “international, national, or regional level athletes from 13 different sports . . . and received elite training for more than 1 year” (p. 400). This diversity was recognised in a review of the literature when Swann, Moran, and Piggott (2015) found a wide range of characterisations of the term elite, ranging from Olympic gold medallists and world-record holders, to regional and university level athletes. To address this lack of consensus, they proposed a model or heuristic device for classifying expert samples in sport

which accounts for the athlete's highest standard of performance, success at the athlete's highest level, experience at the athlete's highest level, competitiveness of sport in the athlete's country, and the global competitiveness of sport. Accordingly, this present research focuses on elite sport with elite swimming being the prime vehicle for this exploration.

A Critical Conceptualisation of Growth in Elite Sport

This literature review has hitherto provided an overview of the current theoretical status of growth and focused on the extant studies of growth and related concepts in sport. At this juncture, through an informed exploration of the literature it is judicious to conceive adversarial growth in elite athletes as a multidimensional construct that involves changes that occur through a process that involves the athletes struggling with adversity. This struggle propels the individual to a higher level of functioning than that which existed prior to the event (Linley & Joseph, 2004). In elite sport this higher level of functioning may uniquely involve superior physical functioning that is identifiable through the athletes' performance outcomes.

Adversity has been identified as the preferred term for this research due to the specific nature of *trauma* and the general nature of a *stressor*. When elite athletes experience events that are chronic (e.g., long term illness) or acute (e.g., non-selection), discrete or cumulative, that shatter their assumptive worlds (cf. Janoff-Bulman, 1992) these events or experiences can be considered as constituting adversities that have the potential to trigger growth. These events may or may not conform to Luthar and Cicchetti's (2000) assertion that adversity is "statistically associated with adjustment difficulties" (p. 858), but it is the athletes' subjective evaluations or appraisal of such demands that determines their severity (cf. Lazarus, 1966, 1999). For elite athletes, who typically have high levels of athletic identity, events that have the potential to disrupt self-identity schema are often appraised as threatening due to heightened sensitivity (cf. Brewer, 1993; Brewer, Van Raalte, & Linder, 1993). As Brewer (1993) observed, a severely sprained ankle is more likely to be evaluated as a major life disruption by an individual with high athletic identity than by an individual with low athletic identity. Accordingly, in an elite environment it can be expected that injuries, performance slumps, non-selection may be appraised as adversities that could trigger growth. It is important to note at this stage that not every unpleasant or upsetting experience that an athlete experiences constitutes an adversity as it is only those that shatter assumptions, beliefs, or values that have the potential to initiate the growth process. Events or experiences that do not involve a shattering of assumptions cannot, by definition, generate growth and any declaration of positive outcomes from those experiences is likely to represent an adherence to a cultural script prevalent in the culture of elite sport.

If the experience is perceived as sufficiently severe to shatter existing schema then the experience may be assimilated or accommodated (cf. Joseph & Linley, 2005). This is not to suggest that the assimilation and accommodation processes occur in the immediate aftermath of the adversity, it is more likely that during this interim period, as the elite athlete struggles to deal with their adversity, the individual may utilise palliative coping mechanisms that are perceived as constituting positive outcomes. This may, depending on the adversity, involve an increased involvement or motivation in sport as the athlete employs avoidance strategies to deal with the negative emotions associated with the adversity, and therefore it is possible that at this stage athletes may report improved performances. Importantly, at this juncture it is likely that the adversity-related experiences have neither been assimilated nor accommodated and positive psychological outcomes are likely to be representative of motivated illusions (Taylor, 1996) or an adherence to a cultural script both of which may be adaptive in the short term. Over time however, it is likely that the experiences will be assimilated or (positively) accommodated. However, despite Joseph et al.'s (2012) assertion in the ACPM of PTG that assimilation may lead to growth, in this instance the positive outcomes identified by the individual should be characterised as being illusory in nature (Zoellner & Maercker, 2006a) as the individual returns to their pre-adversity functioning. Alternatively, if in time the adversity is positively accommodated (cf. Joseph & Linley, 2005) then the positive outcomes may be referred to as growth and are likely to be represented by the domains that are detailed in Tedeschi and Calhoun's (1996) PTGI. As the time from the adversity increases however, it may be that with disclosure and a supportive social network that the athletes accommodate their experiences and undergo a personal transformation that, on reflection, allows appraisal of the experience as being one that is indicative of growth as articulated by the FDM of growth (Calhoun et al., 2010; Calhoun & Tedeschi, 1998; Tedeschi & Calhoun, 1995, Tedeschi & Calhoun, 2004).

Summary

Despite the voracious interest in growth and its related concepts that has been evident in the oncology, trauma, and general psychology literature for a number of years, sport psychology researchers have only recently shown an interest in understanding the role that adversity in elite sport plays in the growth process of athletes. Investigating growth in the elite sporting context informed by methodologically and theoretically sound research has implications for athletes, coaches, and practitioners working in competitive environment. Being cognisant of some of the issues raised in this chapter regarding terminology and measurement, where appropriate, this doctoral research uses the term *adversarial growth* in

preference to the other terms that are used in the literature. Adversarial growth has been defined as the changes that occur through the process of struggling with adversity that propel an individual to a higher level of functioning than that which existed prior to the event (Linley & Joseph, 2004). This doctoral research focuses on aspects of adversarial growth in elite sport performers utilising a range of qualitative methods and underpinned by several of the models of growth presented in the wider literature.

Part II

Empirical Studies

CHAPTER III
SINK OR SWIM: ADVERSITY– AND GROWTH–RELATED EXPERIENCES IN
OLYMPIC SWIMMING CHAMPIONS

Introduction

Over the past few decades, the topic of adversity has received increasing interest within the academic literature. Luthar and Cicchetti (2000) defined adversity as typically encompassing “negative life circumstances that are known to be statistically associated with adjustment difficulties” (p. 858). This perspective employs a threshold–dependent definition of adversity analogous to the notion of risk (Fletcher & Sarkar, 2013), whereas other researchers have adopted a less stringent and broader approach to defining adversity. For example, Jackson, Firtko, and Edenborough (2007) defined adversity as “the state of hardship or suffering associated with misfortune, trauma, distress, difficulty, or a tragic event” (p. 3). The definitional focus shifts from a predominately external ‘circumstance’ to incorporating internal cognitions and affect, thereby conceiving adversity as a relational ‘state’ between an individual and his or her environment. Since the relationship between environmental stressors and psychological outcomes is highly complex (cf. Jones & Bright, 2001; McMahon, Grant, Compas, Thurm, & Ey, 2003), sport psychology researchers have typically adopted a broader perspective of adversity, exploring sexual harassment or abuse (Fasting, Brackenridge, & Walseth, 2002; Tamminen, Holt, & Neely, 2013), depression (Galli & Reel, 2012a; Mummery, 2005), emotional abuse or bullying (Stirling & Kerr, 2008; Tamminen et al., 2013), eating disorders (Papathomas & Lavalley, 2010; Tamminen et al., 2013), and injury (Galli & Reel, 2012a; Wadey et al., 2011).

Adversities clearly represent difficult periods in people’s lives; however, various religious and philosophical writing, anecdotal evidence, and psychosocial theory and research collectively point to the potential for individuals to experience growth following such experiences (Tedeschi & Calhoun, 1995). Within the psychology literature, various terms have been used to describe growth–related experiences, including perceived benefits (Affleck, Tennen, Croog, & Levine, 1987), positive changes in outlook (Joseph, Williams, & Yule, 1993), stress–related growth (SRG; Park, Cohen, & Murch, 1996), posttraumatic growth (PTG; Tedeschi & Calhoun, 1996), thriving (Carver, 1998), positive by–products (McMillen, Howard, Nower, & Chung, 2001), positive adaptation (Linley, 2003), and adversarial growth (Linley & Joseph, 2004). Although these terms all pertain to growth–related experiences, there are often subtle differences at a conceptual level. For example, Park (2009) identified four main differences between SRG and PTG relating to: (a) the severity of the event (with PTG

involving a more severe occurrence), (b) the mechanism of growth (PTG assumes a restructuring of basic life assumptions whereas SRG involves making meaning out of stressor), (c) the commonality of the occurrence (with PTG being less common than SRG), and (d) the duration of change (PTG is assumed to involve an enduring and permanent change whereas SRG may involve a regression back to former thoughts, beliefs, and behaviours). Despite these differences, three areas of consensus in respect of growth following adversity have emerged: relationships are enhanced, individuals develop an altered view of themselves, and individuals re-evaluate and change their life philosophy (Joseph, Murphy, & Regal, 2012).

From a theoretical perspective (cf. Joseph & Linley, 2006), a number of approaches have been developed, including a functional descriptive model (FDM) of posttraumatic growth (Calhoun, Cann, & Tedeschi, 2010; Calhoun & Tedeschi, 1998; Tedeschi & Calhoun, 1995, Tedeschi & Calhoun, 2004) and an organismic valuing theory (OVT) of growth through adversity (Joseph & Linley, 2005). These theories posit that growth arises out of a person's struggle to deal with the shattered self (cf. Janoff-Bulman, 1992) that occurs as a result of a traumatic experience. According to the theories, this involves interaction between a variety of person and situational variables, central to which is an individual's cognitive processing. The main differences between the theories are the primacy of individual's intrinsic motives in OVT (Joseph & Linley, 2005) and the significant role of cultural influences in the FDM (Calhoun et al., 2010).

The most recent theoretical development in this area is Joseph et al.'s (2012) proposal of an affective-cognitive processing model (ACPM) of PTG. This model is based on the assumption that the relationship between PTG and post-traumatic stress is a function of the intensity of the stress experienced. More specifically, there is a curvilinear relationship between these concepts, whereby PTG occurs at an optimal point when there has been sufficient stress to challenge fundamental assumptions, yet not so much stress that an individual is unable to cognitively process and cope with the stress. The premise of the model is that following event stimuli, various event-related cognitions lead to cognitive appraisal activity, which in turn has a reciprocal relationship with an individual's emotional state and coping strategies. This ongoing process is influenced by the social-environmental context and by levels of personality. Central processes in the model involve an individual maintaining ("assimilation") or modifying ("accommodation") their pre-event assumptions. Critical to posttraumatic growth is the process of "positive accommodation" during which an individual changes his or her schema to realise congruence with the new trauma-related information and the expression of an intrinsic drive towards psychological well-being. Despite these theoretical

advances, the growth-related literature has been critiqued for overemphasising cognitive and affective characteristics rather than evidence of change demonstrated through action (cf. Hobfoll et al., 2007; Westphal & Bonanno, 2007). Only when the search for and the subsequent presence of meaning are translated into action can a more complete experience of growth be realised.

Within the sport psychology literature, theorists and researchers have recently begun to recognise the benefits of adversity. In a study of psychological resilience in Olympic champions, Fletcher and Sarkar (2012) found that “most of the participants argued that if they had not experienced certain types of stressors . . . including highly demanding adversities such as parental divorce, serious illness, and career-threatening injuries, they would not have won their gold medals” (p. 672). In an opinion piece, Collins and MacNamara (2012) speculated that talented youth athletes can often benefit from, or even need, a variety of challenges to facilitate eventual adult performance; or, as they succinctly put it in the title of their article: “Talent Needs Trauma” (p. 907). From a sport injury perspective, research examining athletes’ responses to injury has identified a range of perceived benefits and underlying mechanisms (Wadey et al., 2011). Collectively, this work suggests that the role of adversity in sport performers’ lives warrants further research, particularly in respect of the processes that may facilitate positive outcomes.

Research in this area has begun to explicitly explore adversity and growth in sport performers. In 2012, Galli and Reel conducted two studies in this area. In their first study, they interviewed 11 intercollegiate athletes and developed a conceptual model of SRG that illustrates how, within a performer’s personal and social context, social support is used to work through the disruption caused by stressors and realise positive psychological outcomes (Galli & Reel, 2012a). For these athletes, growth was perceived in the form of a new life philosophy, self-changes, and interpersonal changes. In their second study, Galli and Reel (2012b) distributed the Posttraumatic Growth Inventory (PTGI; Tedeschi & Calhoun, 1996) to intercollegiate athletes to further investigate experiences of adversarial growth. They found that athletes reported low to moderate levels of positive change following their most difficult adversity, that females reported greater spiritual growth than males, and that time demands are associated with growth in terms of an enhanced appreciation for life. The following year, Tamminen et al. (2013) interviewed five elite female performers about their experiences of adversity and their potential for growth. They found that as the athletes sought and found meaning in their experiences of adversity, they identified opportunities for growth associated with social support and as the performers realised the role of sport in their lives. Other studies

in this area have explored coaches' perceptions of athletes' stress-related growth following an injury (Wadey, Clark, Podlog, & McCullough, 2013), and posttraumatic growth in disability athletes (Crawford, Gayman, & Tracey, 2014; Day, 2013).

Recent research points to the salience of adversity and growth-related experiences in sport performers' lives. However, it has been acknowledged that this work has tended to provide a 'snapshot' of the phenomenon under investigation and a "somewhat narrow focus on a single stressor" (Galli & Reel, 2012a, p. 315). A need exists to examine "the temporal course of growth" (Galli & Reel, 2012a, p. 315) "over longer periods of time" (Tamminen et al., 2013, p. 35) that better capture the complexity of performers' life stories (see also Galli & Reel, 2012b). Furthermore, given that certain trauma-related experiences appear to be associated with certain sports (cf. Collins & MacNamara, 2012), experiences of adversity and growth are likely to be idiosyncratic and contextually dependent at a sport-specific level. One sport that is particularly demanding is competitive swimming which typically involves intensive training from a relatively early age, engagement in a conformist and disciplined environment, and a high risk of medical-related issues. Many swimmers begin training prior to the onset of puberty with this commitment involving increasing intensity and volumes of training (Lang & Light, 2010). This training occurs within an environment which demands adherence to normative social practices which can create a "climate of fear" (Lang, 2010, p. 29) that fosters a culture of non-disclosure of issues of concern. Given this intensive and conformist training environment, it is perhaps not surprising that swimmers are particularly susceptible to certain injuries, illnesses, and overtraining (Chase, Caine, Goodwin, Whitehead, & Romanick, 2013; Kammer, Young, & Niedfeldt, 1999). In this study, I explored the adversity- and growth-related experiences of swimmers at the highest competitive level. Of particular interest was the transitional process that the swimmers progress through to positively transform their experiences.

Method

This study was grounded in a constructivist paradigm which assumes changing and sometimes conflicting social realities, and seeks to understand people's constructions of their lived experiences (Guba & Lincoln, 2005). Within this paradigm, the researcher(s) acts as an active instrument in the constructivist process. As such, it is worth noting that I have 20 years of experience as a competitive swimmer, 10 years as a swimming coach, three years as a swimming psychologist, and 10 years as a swimming parent. I have therefore acquired insight and understanding of the competitive swimming community, nomenclature, and culture. In view of the assumptions underpinning the constructivist paradigm, a qualitative approach was

deemed appropriate to investigate the research question because it is well suited to revealing the subjective meanings that individuals attribute to events in their lives and can be particularly useful for exploring “problematic moments and meanings” (Denzin & Lincoln, 2011, p. 4). In their discussion about the value of qualitative approaches in the study of the related area of thriving, Massey, Cameron, Ouellette, and Fine (1998) highlighted a number of opportunities relevant to the study of growth (cf. Hussain, & Bhushan, 2012), including hearing how people make meaning of their lives, understanding the idiosyncratic nature of people’s narratives, chronicling the process-related changes over time, and highlighting the meaningfulness of context and multiple discourses. The value of such an approach in growth research has also recently been recognised by sport psychology researchers who asserted that “qualitative investigations remain important due to the powerful narratives that often emerge from attempts to explore the lived experiences of those who perceive growth from adversity” (Galli & Reel, 2012a, p. 298). In addressing the future direction of growth research Galli and Reel proposed the use of grounded theory, phenomenology or narrative analysis to further inform our understanding of growth in sport.

Autobiographical Research

Human beings typically convey their socially constructed experiences through the act of storytelling (Bakhtin, 1981), an act which is epitomised in autobiographies. Autobiography is a genre of writing that provides a retrospective account of an individual’s experiences. With their origins in classical Greek writing, autobiographies became popular in the 20th century and provide a unique contribution to understanding the practices and behaviours of individuals within a given context (Bakhtin, 1981). From a research perspective, there is a long history of analysing autobiographies within literary studies and life writing. In 1974, Howarth argued that autobiographies represent a “self-portrait” (p. 364) of the storyteller and proposed that they may be legitimately studied alongside other literary genres. More recently, autobiographies have become an established source of empirical data in a number of disciplines, such as criminology (Morgan, 1999), psychology (Suedfeld & Weiszbeck, 2004), sociology (Shamir, Dayan-Horesh, & Adler, 2005), accounting (Haynes, 2006), and nursing (Power, Jackson, Weaver, Wilkes, & Carter, 2012). In the past decade, sport researchers have also begun to use autobiographies to better understand the lives of athletes. For example, Butryn and Masucci (2003) analysed the cyclist Lance Armstrong’s autobiography and constructed a parallel counternarrative based on his relationship with technology alongside his account of his life story. Sparkes’ (2004) study of the same book provided insights into the bodies, selves and narratives that circulate within the autobiography and highlighted issues regarding the

cultural shaping of the narratives. Most recently, Thing and Ronglan (2015) analysed the cyclist Jesper Skibby's autobiography focusing on social interactions, emotions, and personality constructions. In addition to examining single autobiographies, researchers have also begun to analyse multiple sport-related autobiographies. The selection of multiple autobiographies has the advantage of portraying diverse perspectives and voices that communicate "a more evocative force" (Frank, 2012, p. 36) than a single case. Drawing on six autobiographies of high altitude mountaineers, Burke and Sparkes (2009) explored the construction of the self in relation to cognitive dissonance. Stewart, Smith, and Sparkes (2011) analysed the autobiographies of 12 elite sport performers and focused on the role of metaphors in shaping athletes' experiences of illness. Collectively, this research points to the usefulness of autobiographies in understanding sport performers' experiences, particularly when they involve significant adversity.

Sample

Eight autobiographies of Olympic swimming champions were sampled, a quantity which is broadly consistent with previous research that has studied multiple sport-related autobiographies (viz. Burke & Sparkes, 2009; Stewart et al., 2011). Olympic champions were selected because they epitomise competitive swimming at the highest level and typically encounter adversities and potential for growth during their careers (cf. Fletcher & Sarkar, 2012). I sampled all of the Olympic swimming champions' autobiographies published between 2002 and 2012. The publication year rather than the year of Olympic Games took precedence because autobiographical accounts are reflective of the historical era in which they were written (Crossley, 2000) and are situated within the context of what is publishable and marketable at any given time (Smith & Watson, 2010). Autobiographies published during this decade are, to some extent, products of a post 9/11 era of heightened awareness and sensitivity to significant adversity. Indeed, during this period the "sports-consuming public" (Morgan, 2010, p. 1580) increasingly demanded accounts of star athletes' personal struggles to overcome adversity (Schaffer & Smith, 2004). Given the psychosocial focus of this study, and the salience of world events at the start of the 21st century, the selection of autobiographies was delimited to after 2001. As Schaffer and Smith (2004) remarked: "stories of suffering and survival sell to readers" (p. 12).

The autobiographies were written by four male and three female swimmers whose details are summarised in Table 1. Collectively, the swimmers represented four countries at seven Olympic Games, with each swimmer competing in at least two Olympic Games and winning at least one Olympic gold medal at either of the Games. Their ages at the time of their

Table 1

Swimmer and Autobiography Details

<i>Swimmer</i>	<i>Country of Representation</i>	<i>Olympic Games (year, city)</i>	<i>Age (years)</i>	<i>Career Olympic Medals (colour)</i>	<i>Title</i>	<i>Publication year</i>	<i>Co–Author</i>
Natalie Coughlin	USA	2004 Athens 2008 Beijing 2012 London	21 25 29	3 Gold 4 Silver 5 Bronze	Golden Girl	2006	Michael Silver
Mark Tewksbury	Canada	1988 Seoul 1992 Barcelona	20 24	1 Gold 1 Silver 1 Bronze	Inside Out: Straight Talk from a Gay Jock	2006	Not applicable
Ryk Neethling	South Africa	1996 Atlanta 2000 Sydney 2004 Athens 2008 Beijing	17 22 26 30	1 Gold	Chasing the Dream	2008	Clinton Van der Berg
Michael Phelps	USA	2004 Athens 2008 Beijing 2012 London	19 23 27	18 Gold 2 Silver 2 Bronze	No Limits: The Will to Succeed Phelps: Beneath the Surface	2008 2012	Alan Abrahamson Brian Cazeneuve
Dara Torres	USA	1984 Los Angeles 1988 Seoul 1992 Barcelona 2000 Sydney 2008 Beijing	17 21 25 33 41	4 Gold 4 Silver 4 Bronze	Age Is Just a Number	2009	Elizabeth Weil
Amanda Beard	USA	1996 Atlanta 2000 Sydney 2004 Athens 2008 Beijing	14 18 22 26	2 Gold 4 Silver 1 Bronze	In the Water they can't See you Cry	2012	Rebecca Paley
Ian Thorpe	Australia	2000 Sydney 2004 Athens	17 21	5 Gold 3 Silver 2 Bronze	This is Me	2012	Robert Wainwright

Olympic swimmers ranged from 14–41 years ($M = 23.39$, $SD = 6.04$). The swimmers used one of the following genres of writing: the swimmer as sole author written in the first person (viz. Mark Tewksbury), the swimmer as primary author (with a co–author) written in the first person (viz. Amanda Beard, Ryk Neethling, Michael Phelps (two autobiographies), Ian Thorpe, and Dara Torres), and the swimmer as co–author written in the third person (viz. Natalie Coughlin).

Data Analysis

The autobiographies provide multiple narratives of Olympic swimming champions' experiences and are therefore appropriate for analysis informed by a narrative tradition (Lieblich, Tuval–Mashiach, & Zilber, 1998). Smith and Sparkes (2009) defined a narrative as “a complex genre that routinely contains a *point* and *characters* along with a *plot* connecting *events* that unfold *sequentially over time and space* to provide an overarching *explanation or consequence*” (p. 2). The autobiographies align well with this definition and were subjected to a holistic analysis whereby the text was interpreted within the context of the whole story (Lieblich et al., 1998). This analytical approach involves scrutinising the plots of complete life stories, thus being particularly appropriate for providing insight into autobiographical accounts. Within this holistic approach, the *form* of the structure and style of the narrative was analysed, and the *content* relating to the events and meanings described by the authors was analysed (Lieblich et al., 1998). The holistic analysis was accompanied by Smith and Watson's (2010) strategies for reading and engaging with life narratives and autobiographies. Among the strategies they suggested, narrative plottings and modes, voice, trauma, and embodiment were deemed particularly appropriate for addressing the purpose of this study.

During multiple readings of the autobiographies, two strategies (viz. narrative patterns and voice) were aligned with holistic–form analysis and two strategies (viz. trauma and embodiment) aligned with holistic–content analysis. In terms of the narrative pattern, Smith and Watson (2010) advocated the exploration of the plottings used to structure the narrative and, for example, reflecting on whether there are multiple plottings in the text or whether one pattern dominates. A performance narrative (cf. Douglas & Carless, 2006) was not surprisingly apparent in the readings; however, a quest narrative (cf. Frank, 1995) was also evident in the swimmers' experiences and lives. Within the narrative patterns, Smith and Watson recommended exploring whether there is a dominant voice or whether there are multiple and/or conflicting voices. Autobiographies are typically conceived to be the stories of one individual's experiences, but these accounts are often delivered through multiple voices, either explicitly as when autobiographies are written collaboratively with ghost writers, or implicitly through structural writing strategies. For example, several of the swimmers used italics or quotation

marks to portray internal ruminations about adversity, thus representing additional voices which are present alongside the narrative of the primary storytelling voice. Turning to the significant events and meanings within the autobiographies, Smith and Watson provided guidance on dealing with traumatic issues and advised a focus on how the author deals with trauma, suffering, and the resultant experience. Adversity-related trauma and negotiation of experience were consistent themes across the swimmers' experiences. In addressing embodiment, Smith and Watson (2010) suggested that the role of the body in the narrative should be considered in relation to the cultural meanings attached to the body and what bodily processes are significant. In the autobiographies, the focus of the narratives was often on the performance and aesthetic meanings of the swimmers' bodies and as such the embodied experience or, as Pipkin (2008) put it, the "body songs" (p. 44) recounted by the swimmers was a noteworthy aspect of their stories.

Within the constructivist paradigm, the notions of truthfulness and trustworthiness are important considerations in understanding people's lived experiences. Autobiographical accounts do not constitute an exact – or 'true' – representation of events and will likely involve inconsistent and shifting views of the narrator. Rather, they involve reconstruction from the storyteller's perspective relying on their personal memory within a cultural context, a process that may be motivated by deceit or positive self-presentation (Smith & Watson, 2010). In reading autobiographical accounts, Smith and Watson argued that the reader's expectations of truth have to be adjusted to acknowledge that it is impossible to fully verify or, conversely, fully discredit the truth. Elite athletes are, however, in a position to provide valuable first-hand perspectives of sport that are not normally accessible to the majority and "*their stories*" (Pipkin, 2008, p. 11) provide a certain degree of trustworthiness to their interpretations. As Smith and Watson elucidated, "any utterance . . . even if accurate or distorted, is a characterisation of its writer" (p. 15). Thus, although at one level these accounts offer a privileged insight into the world of elite sport, they also offer at another level opportunities for critical enlightenment that go beyond many other forms of inquiry. I used a reflective journal to enhance my self-awareness during the data analysis process, and my supervisor, Dr. David Fletcher, acted as a 'critical friend' to constructively challenge the analytical decisions. As Stanley (1992) remarked: "we may be textually persuaded, cajoled, led and misled; but we can . . . scrutinise and analyse, puzzle and ponder, resist and reject" (p. 131).

Results and Discussion

Embedded Narratives

The analysis of the autobiographies revealed that all of the Olympic champion swimmers experienced adversity during their lives, and that they progressed through a transitional process to positively transform their experiences into growth. From a holistic perspective, it was evident from the swimmers' narratives and voices that adversity was typically a distressing experience for them. Initially, the swimmers often attempted to maintain normality through an embodied relationship with water, which involved the non-disclosure of distressing adversities and the development of multiple identities. Although this proved to be a somewhat effective strategy in the short-term, it became increasingly maladaptive in the longer term resulting in the swimmers acknowledging the need to confront their thoughts, feelings and behaviours. In doing so, the swimmers sought meaning in their experiences, accepted the support of others and, subsequently, they experienced growth. For these champion swimmers, growth was ultimately represented by superior performance, enhanced relationships, spiritual awareness, and prosocial behaviour.

The swimmers' stories are consistent with aspects of both performance and quest narratives. According to Douglas and Carless (2006), the performance narrative is dominant in sport and comprises a "primacy of performance" (p. 15) where performance and results are prioritised at the expense of other aspects of athletes' lives. They argued that this narrative, typically characterised by a focus on competition and winning, is present in all levels of sport and in both male and female athletes (see also Douglas & Carless, 2009). This focus is explored in Coakley's (2014) power and performance model of sport which identified that a win at all costs sport ethic requires conformity to the values of an individual's chosen sport. For the Olympic swimming champions, the pathway to the podium entailed adherence to this performance narrative and acceptance of pain and sacrifice in the pursuit of their sporting goals. Beard reflected that "it's staggering when I think about how much time and energy swimming has consumed in my life. An athlete has to sacrifice everything for her sport" (Beard & Paley, 2012, p. 243). Even pregnancy did not stop Torres from ignoring her doctor's advice to reduce the intensity of her training: "not surprisingly, over the course of my pregnancy . . . [my coach] and I kept on having the same conversation. 'Dara, remember what your doctor said', 'Yeah but . . .'" (Torres & Weil, 2009, p. 24). Adherence to the performance narrative means that failure can bring about feelings of shame for individuals who have invested their identity in their performance (Douglas & Carless, 2009). For Torres, her silver medal in the 2008 Olympic Games was a failure: "I'd come up short" (Torres & Weil, 2009, p. 222). After winning a

bronze medal at the 2004 Olympic Games, Phelps recalled, “I hated standing on that third–place podium. Hated it, hated it” (Phelps & Cazeneuve, 2012, p. 203). Following eighth place position at the 2000 Olympic Games, Neethling reflected, “I was devastated. There’s no other way to put it . . . I was embarrassed” (Neethling & Van der Berg, 2008, p. 63).

When their stories became incompatible with the dominant performance narrative, the swimmers experienced “narrative tension” (Carless & Douglas, 2013, p. 8) and were susceptible to mental health problems and experiencing further adversity. To avoid becoming a “narrative wreck” (Frank, 1995, p. 54), the swimmers shifted the focus of their stories and ascribed to a quest narrative. Quest narratives involve individuals confronting their suffering, accepting the consequences, and striving to gain something positive from the experience (Frank, 1995). Neethling perceived a debilitating shoulder injury prior to the 2000 Olympic Trials as if “I had been sentenced to death” (Neethling & Van der Berg, 2008, p. 170), but he eventually perceived it as “a blessing in disguise” (p. 166) as it allowed him to focus on other aspects of his training and his “spirits were up again” (p. 167). Tewksbury reflected that homophobic graffiti on his school locker “sent me on a path that brought me to the height of Olympic sport, to being an advocate for human rights, to becoming who I am today” (Tewksbury, 2006, p. 249). Phelps revealed that “when I was in grade school, I was diagnosed with . . . ADHD [Attention Deficit Hyperactivity Disorder]. I had overcome that. When I was in school, a teacher said I’d never be successful. Things like that stick with you and motivate you” (Phelps & Abrahamson, 2008, pp. 4–5). The performance and quest narratives that were apparent in the swimmers’ autobiographies contained multiple themes pertaining to adversity–related experiences, transitional processes, and growth–related experiences.

Adversity–Related Experiences

The swimmers’ adversity-related experiences comprised developmental stressors, external stressors, embodied states, psychological states and externalized behaviors. These experiences represent both adverse events and individuals’ responses because the swimmers often identified their responses as becoming adversities in their own right (cf. Jones & Bright, 2001; McMahon et al., 2003).

Developmental stressors. Early adversity was not uncommon among the swimmers with Phelps suffering from ADHD, Neethling from a speech impediment, and Beard from dyslexia and obsessive compulsive disorder (OCD). These developmental stressors interfered with their academic and social lives. Neethling referred to his childhood stutter as “the most traumatic thing in an otherwise perfect childhood” (Neethling & Van der Berg, 2008, p. 8). Beard’s dyslexia meant that her school years were characterised by failure and mortification,

stating that “school made me cry out of frustration or humiliation on a daily basis. I felt like a complete idiot...” (Beard & Paley, 2012, p. 37).

External stressors. Several of the swimmers experienced family dysfunction. Beard described her early childhood as “perfect” (Beard & Paley, 2012, p. 13) and believed this until her parents separated: “my parents weren’t into confrontation . . . weren’t really into communication. I had no idea why they were breaking up. I had never even seen them fight” (p. 16). Phelps’ father was absent from his formative years: “my father moved out . . . when I was seven. As time went on we spent less and less time together” (Phelps & Abrahamson, 2008, p. 23). The adversities related to family members and coaches were distressing experiences for the swimmers. Phelps lived in the shadow of his sister’s back injury and eating disorder that quashed her own Olympic ambitions, and Neethling’s aspirations were against the backdrop of his sister’s battle with cancer, initially in childhood and then during his preparation for the 2008 Olympic Games when she was diagnosed with an aggressive tumour. Torres was particularly close to her divorced father who died following a long battle with cancer “just as I was getting serious about swimming again” (Torres & Weil, 2009, p. 98). When her coach was diagnosed with serious aplastic anaemia, Torres was distraught: “ten days before the start of the Olympics, I was so sapped by worrying about [him]” (p. 195). After “Dad and I had run from settling unresolved issues between us” (Tewksbury, 2006, p. 134), Tewksbury’s father was diagnosed with cancer. Tewksbury referred to the enormity of the “emotional toll that the disease had taken on our family” (p. 135) which he perceived as “a turning point for [us]” (p. 132).

A notable stressor that many of the swimmers encountered at some point in their career was their coach’s style of practice and communication. Coughlin reflected that “if gymnastics and figure skating were the gravest examples of sports whose coaches habitually inflicted physical, mental and emotional elite-level youth standouts . . . swimming was quite possibly the next worst” (Silver & Coughlin, 2006, pp. 30–31). Thorpe referred to his coach’s style which was “to flog swimmers in the belief that it was the way to get the best out of them” (Thorpe, 2012, p. 87). This style of coaching was evident in many of the autobiographies and is normalised behaviour within the elite swimming culture (Stirling & Kerr, 2008). It was also common for the swimmers to become embroiled in conflict with their teammates. Coughlin found herself isolated from teammates who “resented her” (Silver & Coughlin, 2006, p. 128) and Torres had to leave her coach’s team in the build-up to the 2000 Olympic Games following a deterioration in her relationship with a competitor in the group: “my beating her in the 50-meter freestyle was more than our increasingly fragile relationship could bear” (Torres & Weil,

2009, p. 61). As the most successful swimmers of their generation, the media was never far from their lives. Thorpe found himself subject to intense media scrutiny over his sexuality and drug allegations and ultimately led to his premature retirement from swimming: “the attention had become like a cancer” (Thorpe, 2012, p. 292).

Embodied states. Injury, often the impetus for growth (cf. Wadey et al., 2011), was common among the swimmers. Following the 2004 Olympic Games, Phelps was diagnosed with spondylolysis of the back which echoed back to his sister’s injury: “I tried not to think that my career might end prematurely, as hers did, but of course it entered my mind” (Phelps & Cazeneuve, 2012, p. 231). Coughlin, Neethling and Torres all suffered from debilitating shoulder injuries that at various times threatened to end their Olympic careers. The swimmers learned that overcoming physical pain was not only desirable, but necessary as both coaches and swimmers internalised the belief that injuries and illnesses are indicators of weakness. Coughlin explained that “coaches encourage their ailing athletes to ‘swim through it’ whenever possible, and those that can’t end up quitting the sport or being labelled malingerers” (Silver & Coughlin, 2006, p. 46). This was even the case when medical experts expressed concern. Coughlin recounted that one of her early coaches insisted that she swim despite a serious shoulder injury: “the doctor would say one thing . . . and [my coach] would walk out of the room and say I could swim through it” (Silver & Coughlin, 2006, p. 47). A bout of illness was perceived by Coughlin to be a “key moment” (Silver & Coughlin, 2006 p. xv) when, at the World Championships in 2003, she was felled by a flu-like virus that caused her “body [to] breakdown” (Silver & Coughlin, 2006, p. 10).

Psychological states. The swimmers went through episodes of ruminations signifying affective–cognitive processing (Joseph et al., 2012) which were apparent in instances of body dissatisfaction, depression, and suicidal thoughts. For Beard, puberty shattered her perceptions of self and resulted in extreme body dissatisfaction: “my brain . . . kept returning to that negative tape playing over and over: You’re fat and disgusting, unlovable” (Beard & Paley, 2012, p. 68). She questioned “whose body is this?” (Beard & Paley, 2012, p. 65) and recalls her disgust with her appearance: “I could feel every little despicable part of me jiggle when I walked across the deck to the blocks. My swimsuit rode up my hips . . . making me conscious about my thighs and my butt” (Beard & Paley, 2012, pp. 64–65). Similarly, Tewksbury focused on his body to identify why he was not in a relationship: “my mind needed to identify some reason why I was alone . . . I left no stone unturned on the path to destruction. I played the ‘you are too hairy, you are too hairy’ tape through my mind” (Tewksbury, 2006, p. 87).

Several of the swimmers overtly referred to depression with Thorpe identifying that

“I’ve spent a lot of my life battling what I can only describe as a crippling depression” (Thorpe, 2012, p. 272). Tewksbury stated that “my depression had been building for months, perhaps years” (Tewksbury, 2006, p. 86) and Beard was referred to a psychiatrist and prescribed medication for depression. Others used language that suggests depressive symptoms. Neethling referred to “my dark mood” (Neethling & Van der Berg, 2008, p. 64), Coughlin to “a hollow numbness that was equal parts depression and disbelief” (Silver & Coughlin, 2006, p. 173), and Torres to the difficulties dealing with her father’s death: “for the next year I’d cry at the drop of a hat” (Torres & Weil, 2009, p. 96). Although depression was clearly a psychological state or outcome of an adversity (e.g., “there was a connection between my being gay and my being depressed” (Tewksbury, 2006, p. 90)), it was also evident that depression represented an adversity in its own right. For example, Thorpe reflected that his depression had no discernible environmental cause: “just as I believe sexuality to be a genetic disposition, so too is depression. It was something that I would have had to deal with whether I was a swimmer or not” (Thorpe, 2012, p. 274) and not the outcome of anything specific: “it wasn’t a reaction to the high life of red carpets and speeches, neither can I blame the media intrusion” (Thorpe, 2012, p. 273).

The depression that Thorpe and Tewksbury experienced was so severe that they contemplated suicide. Thorpe explained that “my blackest moments would often last a month and it was during those times that I thought about ‘it’ happening. I even considered specific places and or a [sic] specific ways to kill myself” (Thorpe, 2012, p. 278). Unable to subscribe to the prevailing heterosexual stereotype, Tewksbury existed in a “monadic body” (Frank, 1995, p. 36), whereby he felt physically and emotionally isolated from those around him. His shame led to extreme self-loathing: “I was consumed with the thought of killing myself. The intense and relentless bullying and ostracising had taken its toll” (Tewksbury, 2006, pp. 35–36).

Externalised behaviours. In an attempt to deal with trauma, the swimmers often externalised their emotions and turned on their bodies, abusing them in ways that created further adversity. Beard described her self-harm in detail and as “my own revelation. Through it I could finally solve something” (Beard & Paley, 2012, p. 135). Both Beard and Torres experienced bouts of disordered eating throughout their careers with Torres admitting that “I’d been bulimic when I’d swum in college and at the 1988 Olympics” (Torres & Weil, 2009, p. 29). She recalled experiences of weigh-ins and having to attend additional workouts – named “the breakfast club” – if swimmers did not make target weights: “I was desperate to please [my coach]... I would have done anything not to join the breakfast club. And I did” (Torres & Weil, 2009, p. 31). She managed her weight through purging which is a practice often introduced by

other swimmers to ensure conformity to swimming ideals and to retain an illusion of control over the body (McMahon, Penney, & Dinan–Thompson, 2012). Torres recounted that “three or four of us followed [one of the swimmers]. She stuck her fingers down her throat and she made herself throw up” (Torres & Weil, 2009, p. 32). Beard used italicised writing to highlight her self–dialogue relating to her disordered eating alongside her narrating position: “*I can’t have this food in me. . . . I need to get it out. . . . Get it out. Get it out. . . . I got that shit out of me*” (Beard & Paley, 2012, pp. 91–2).

Several of the swimmers engaged in substance abuse which has been viewed as an adversity from which growth can occur (McMillen et al., 2001). After taking a recreational hallucinogenic drug, Beard remarked: “I was plagued by nightmarish visions and spent hours in the throes of the scariest experience of my life” (Beard & Paley, 2012, p. 123). In February 2000, allegations surfaced that Thorpe was taking performance–enhancing drugs and contributed to “[one] of the saddest [moments of my career]” (Thorpe, 2012, p. 244). Phelps explained his driving under the influence charge following a back injury: “In November 2004 . . . I drove after drinking [alcohol]. . . . By way of explanation, not excuse: After the Athens Games ended, I was for the first time in my life, on my own” (Phelps & Abrahamson, 2008, p. 141).

The Transitional Process

The transition from adversity to growth involved a number of processes. Initially, the swimmers attempted to maintain normality and equilibrium in their lives; however, it became clear that this was ultimately unsustainable. This realisation prompted a number of related processes involving the questioning of the performance narrative, a search for meaning, and the enlistment of social networks to support the swimmers through their adversity–related experiences to promote growth. Within this transitional process, there were often pivotal moments that represented turning points in the swimmers’ lives. For Thorpe, “swimming [was] a safety net and a security blanket which I was about to cast off.” (Thorpe, 2012, p. 296).

Maintenance of normality. Following adversity–related experiences, the swimmers typically tried to maintain a state of normality. Torres stated that “swimming gives me a feeling – really the illusion – that life is orderly” (Torres & Weil, 2009, p. 186). The swimmers who experienced adversity early in their lives found solace in the protective solitude of swimming through the development of an emotional and embodied relationship with water. Following family breakdown, Beard reflected that the “water had become my getaway. The silent sanctuary was my biggest distraction away from the troubles of my family” (Beard & Paley, 2012, p. 22). Neethling explained that he swam to escape the humiliation of a childhood stutter:

“in the pool, I’d be in my own world. I didn’t need to communicate very much. It was perfect for a shy, self-conscious child. No talking – just me and the cool, smooth water” (Neethling & Van der Berg, 2008, p. 9). In reference to his ADHD, Phelps referred to the pool as “my safe haven” (Phelps & Abrahamson, 2008, p. 20). Thorpe talked of the importance of swimming in his battles with depression, suicidal thoughts, and the intense media glare: “the water gives me respite. It’s one of the few places I can be completely comfortable with myself; a place where I am truly happy” (Thorpe, 2012, p. 21). For many of the swimmers the protective solitude of the water echoed back to the prenatal experience and a time of safety and security (Strang, 2004). A coach remarked that Coughlin swam “like she’s in the womb” (Silver & Coughlin, 2006, p. 89).

At the same time as seeking solace to maintain normality, the swimmers also used strategies that involved the nondisclosure of traumatic adversities. A closed door analogy was ubiquitous with sexuality, disordered eating, self-harm, alcohol use, depression, and pain all being outwardly denied. At the age of seven, Tewksbury began wearing his grandmother’s clothes which she encouraged until he was 14 years old: “it was our little secret. No one from the family ever knew about this. Keep it in the closet. Even at this young age I got the message loud and clear” (Tewksbury, 2006, p. 5). Beard learned to keep her dysfunctional behaviour secret; her purging and self-harming were done behind the bathroom door: “I made sure to carefully cover my tracks and never get caught” (Beard & Paley, 2012, p. 92). Thorpe “used alcohol as a means to rid my head of terrible thoughts, a way of managing my moods – but I did it behind closed doors, where many depressed people choose to fight their demons” (Thorpe, 2012, p. 275). He escaped to a similar place to hide his physical pain from the media: “there were occasions when in closed rooms out of the sight of cameras I collapsed and convulsed in pain” (p. 19).

In a further attempt to maintain normality, the swimmers often developed multiple identities to compartmentalise aspects of their lives (cf. Smith & Watson, 2010). For example, to avoid the potential stigma attached to disordered eating, some athletes opt to lead a “double life” (Papathomas & Lavalley, 2010, p. 364) in preference to seeking professional support; a strategy evident in Torres and Beard’s accounts of their disordered eating. Thorpe described himself as being made up of many parts or “masks” (Thorpe, 2012, pp. 19–20) with few people having access to, or knowing his true self. Tewksbury separated his sexual orientation from his swimming persona: “I would do whatever I could to hide it. It started simply by lying to myself . . . I was going to ignore this gay thing, hoping it was some strange phase that I would eventually outgrow” (Tewksbury 2006, pp. 36–37).

Although the maintenance of normality proved to be a somewhat effective strategy in the short-term, it was ultimately unsustainable resulting in the swimmers acknowledging the need to confront their issues. Struggling with dyslexia, Beard recognised that “I outswam my problems . . . but it never lasted. Although a hard swim temporarily washed away my stress, my problems refused to budge” (Beard, 2012, p. 38). After five years of hiding it, Torres admitted to an eating disorder: “I was tired of all my secrets, tired of feeling ashamed and weak” (Torres & Weil, 2009, p. 34).

Questioning the performance narrative. As the swimmers began to realise that normality could not be sustained, many of them began to question the dominant performance narrative within the sport and their lives. The prioritisation of performance and results in their lives had taken its toll on their health, well-being, and personal relationships. For most of the swimmers this led to them doubting their focus on success and to retiring from the sport. Thorpe’s retirement as a result of the pressures inherent in top level swimming meant that he had to “walk away from the sport I loved before I was ready, simply because of [pressures] that destroyed my enjoyment” (Thorpe, 2012, p. 72). However, he did return to the sport four years later, not to recapture glory, but because he wanted to integrate competitive swimming back into his life and that “the truth is that it’s actually a process of self-discovery” (p. 18). Making a comeback represented a period of self-reflection for some of the swimmers and signified a shift towards a quest narrative and a change in life philosophy. After briefly giving-up swimming and abandoning the performance narrative following the 2000 Olympic Games when he became disillusioned with what he perceived to be extensive doping within the sport, Neethling reflected that “walking away gave me perspective . . . but for that fresh perspective, I may not have become an Olympic Champion” (Neethling & Van der Berg, 2008, p. 66). For Beard, a return to competitive swimming following the birth of her son was not solely about performance and results: “I really didn’t worry too much about failing at swimming. Failing my son was my only serious concern now” (Beard & Paley, 2012, p. 232).

The search for meaning. The process of seeking meaning appears to be important for facilitating growth (Linley & Joseph, 2011). With the exception of Phelps, there was an explicit acknowledgement by all of the swimmers for the need to identify the meaning underlying specific adversities. After moving out from his parents’ home, Thorpe (2012) “finally decided to get some answers . . . the [depression] had become crushing and I knew I needed to seek out other ways of managing it” (p. 274). For Tewksbury (2006) “perhaps one of the greatest fringe benefits to being gay was that it forced me to constantly question, first myself, then the world around me” (p. 135). He found meaning in others’ allegations that he used drugs: “. . . it was

one of the best things that happened to me . . . the strain that had developed . . . would continue to challenge me, eventually forcing me to change in ways I had never imagined” (Tewksbury, 2006, p. 196). Linley and Joseph (2011) have argued that although finding meaning is associated with positive change, the process through which this occurs often involves negative experiences. Following an illness that derailed her performance at the 2003 World Championships, Coughlin highlighted the lessons she had learned in “perseverance and handling adversity by fighting through the discomfort” (Silver & Coughlin, 2006, p. 12).

Social support. Consistent with the findings of previous research exploring growth in sport performers (Galli & Reel, 2012a; Tamminen et al., 2013; Wadey et al., 2011, 2013), the swimmers cited the important role of family, friends and coaches in the transformational process. Having initially used strategies that involved the nondisclosure of their distressing adversities, the swimmers began to seek social support and reveal their experiences. Thorpe acknowledged the importance of discussing his problems with his family: “I realise it is time to be open. I need to talk to them about [my depression]” (Thorpe, 2012, p. 273). Following Torres’s disclosure of her eating disorder, it was her mother who made her consult a psychiatrist. Tewksbury acknowledged that “what I needed was the support of a family unit” (Tewksbury, 2006, p. 90) and, following the breakdown of a long-term relationship, he found support in friendship: “[my friend] helped me reconnect to community, but more importantly he showed me how to connect to myself” (p. 189). When Beard was confronted about self-harming by her boyfriend she recalled his reaction: “‘we’re going to do this together,’ he replies. ‘I will help you find a therapist. I will go with you to therapy. Whatever you need me to do, I will do’” (Beard & Paley, 2012, p. 198). It was her relationship with her most recent coach that allowed Coughlin to put her previous negative experiences behind her: “[after] the nightmarish clash with her club coach . . . it had taken 4 enlightening years with . . . [her current coach] . . . to make her feel free once more” (Silver & Coughlin, 2006, p. 284). The importance of the coach was identified by Phelps who remarked that “soon enough [my coach] would help me find myself through swimming” (Phelps & Cazeneuve, 2012, p. 28).

Growth-Related Experiences

For these champion swimmers, growth-related experiences were represented by superior performance, enhanced relationships, spiritual awareness, and prosocial behaviour. To avoid identifying retrospective reattribution of experiences as evidence of growth – articulated as “I am better now, so I must have grown” (Westphal & Bonanno, 2007, p. 419) – confirmation must be identifiable through action (cf. Hobfoll et al., 2007; Westphal & Bonanno, 2007) otherwise the change is “hollow” (Hobfoll et al., 2007, p. 361). Within the autobiographies,

several of the swimmers used writing styles that employed italics or quotation marks to portray internal ruminations about adversity. Ruminative brooding and reflective pondering have been previously identified as important stages in the growth process (Joseph et al., 2012). By the end of the books there is a closure to the multiple narrator voices, a development which is indicative of growth (Smith & Watson, 2010). For example, in Beard's final chapter her inner voice, which is visible for the majority of her memoir, has become silent.

Superior performance. In support of resilience research with Olympic champions that suggested that stressors provide opportunities to develop an edge over the competition (Fletcher & Sarkar, 2012), the swimmers subscribed to the motivational and positive impact that adversity had in their lives. In discussing the impact of his childhood adversities, Phelps explained: "I firmly believe these episodes taught me not just how to manage my emotions to my advantage. I also learned what was worth getting worked up about, what was meaningful and important in my life" (Phelps & Abrahamson, 2008, p. 135) and, in doing so, "I could accomplish anything" (p. 137). Tangible evidence of this superior performance is evidenced in the medal haul of the swimmers, a total of 67 Olympic medals of which 34 were gold, numerous world records, and international recognition and acclaim. Neethling referred to his Olympic victory as the result of a "journey that culminated in my dream of winning an Olympic gold medal" (Neethling & Van der Berg, 2008, p. 220).

Enhanced social relationships. Through reflecting on their adversity- and transformational-related experiences, the swimmers identified enhanced social relationships (cf. Galli & Reel, 2012a). Neethling acknowledged that in the pursuit of his Olympic dream he had neglected his relationships and resolved "to reconnect with my many friends, people who have always been there for me . . . their support has been unwavering" (Neethling & Van der Berg, 2008, p. 220). Tewksbury finished his autobiography by acknowledging the important role of his family: "I felt wonderful, realising that I had never loved my family as much or felt closer to them as I did at this time in my life. The incredible thing was that they had been there all along" (Tewksbury, 2006, p. 253). Beard's engagement represented an enhanced commitment: "we had been through a lot together and I never doubted that he was the man of my life" (Beard & Paley, 2012, p. 222).

Spiritual outcomes. Only Thorpe and Tewksbury explicitly mentioned increased spirituality as a consequence of their adversity-related experiences. Thorpe's beliefs were reinforced through reflection of events both in and out of the pool, such as narrowly avoiding the 9/11 attacks in New York City. He stated his belief in "a greater being and there are things that happen that can never be explained. This is the foundation of my spirituality" (Thorpe,

2012, p. 208). Tewksbury (2006) stated that “my father’s illness coincided, probably not accidentally, with a time in my life when I was doing a lot of reading and spiritual soul-searching” (p. 135). These quotes provide support for FDM (Tedeschi & Calhoun, 1996) which posited that increased spirituality may be identifiable in individuals who experience growth from adversity. Indeed, using the PTGI (Tedeschi & Calhoun, 1996), Galli and Reel (2012b) found that female intercollegiate athletes experienced more spiritual growth than male intercollegiate athletes.

Prosocial behaviour. Success, relationships, and spirituality were all indicative of growth in these swimmers, but the ultimate indicator was assisting and supporting others in the form of prosocial behaviour. Hobfoll et al. (2007) refer to the importance of the “right action and right conduct” (p. 349) in the conceptualisation of growth. At the height of her final comeback and moments before an Olympic semi-final, Torres displayed inspirational empathy when she halted proceedings so that one of her rivals could change out of a faulty swim suit. Neethling reflected that “I love being around kids and the opportunity to give something back to the sport of swimming motivates me” (Neethling & Van der Berg, 2008, p. 218) and that “being an inspiration to [youth swimmers] is more rewarding than all the records and medals I have” (p. 161). Phelps, the most decorated Olympian in history, appears at first glance to be the epitome of personal growth but his “main goal was to raise the sport of swimming as ‘high as I can get it’” (Phelps & Abrahamson, 2008, p. 221), thus transcending his own personal achievements. Following the acknowledgement of his sexuality, Tewksbury found acceptance of his identity was “standing up for something I believed” (Tewksbury, 2006, p. 167). As an illustration of “action growth” (Hobfoll et al., 2007, p. 356), he championed gay and lesbian rights in elite sport and fought corruption in the International Olympic Committee (IOC). Charitable engagement from Thorpe, Neethling, Torres and Phelps revealed altruism that is consistent with findings from previous research (Galli & Reel, 2012a). Neethling helped to set-up and support charitable organisations following the murder of a distant family member and because “the plight of these children matters to me. I want to make a difference and I will help in any way I can” (Neethling & Van der Berg, 2008, p. 220). Torres stated that “now, I’m all for helping other people out . . . with my resources and my time . . . I’m all for giving back” (Torres & Weil, 2009, p. 73).

General Discussion

Through the analysis of autobiographies, I explored the adversity– and growth– related experiences of Olympic swimming champions with a particular emphasis on the transitional processes involved in transforming adversity into growth. The presence of significant adversity in the form of developmental and external stressors, embodied and psychological states, and externalised behaviours was a key feature of the swimmers’ narratives. The adversity–related experiences identified in this study are noticeably more diverse than those reported in previous adversity–related growth research involving sport performers (Galli & Reel, 2012a, 2012b; Tamminen et al., 2013; Wadey et al., 2013). Specifically, the novel adversities to emerge were OCD, ADHD, speech impediment, dyslexia, family dysfunction, family and coach adversity, bereavement, conflicts within the team, media intrusion, illness, body dissatisfaction, sexuality, suicidal thoughts, self–harm, and substance abuse. Furthermore, unlike previous research in this area, the swimmers sometimes identified their responses to events as becoming adversities in their own right (cf. Evans, Wadey, Hanton, & Mitchell, 2012). Examples in the present study include body dissatisfaction, depression, suicidal thoughts, self–harm, disordered eating, and substance abuse. Although at times these represented responses (e.g., body dissatisfaction) to other adversities (e.g., coaching style and emotional abuse), it was clear that they also then caused subsequent dysfunctional psychological states and behaviour (e.g., disordered eating) thus representing deleterious adversity–response cycles. Regardless of the nature of the adversity–related experiences, the swimmers all subscribed to the powerful impact that they had on them. For several of the swimmers, certain adversities represented significant, life–changing events that acted as extreme motivational triggers. For example, the homophobic graffiti on Tewksbury’s school locker and Phelps’s teacher’s disparaging comments were both cited as causal events in their development of highly driven mind–sets that bordered on the obsessional (cf. Vallerand et al., 2003, 2006, 2008).

The swimmers perceived that their adversity–related experiences were necessary, although not sufficient on their own, for winning their Olympic gold medal(s). What transpired as pivotal for growth was the transitional and transformational process that ensued. The findings provide broad support for Joseph et al.’s (2012) affective–cognitive processing model of posttraumatic growth which involves individuals dealing with their experiences of adversity through a cycle of appraisal, emotions, and coping. More specifically, the model illustrates a link between negative appraisal mechanisms, labelled as ruminative brooding, and an individual maintaining their pre–event assumptions, labelled as assimilation. For example, some of the swimmers referred to a disparaging “tape” playing over and over in their minds

which reinforced their body dissatisfaction. Attempts at maintaining normality forestalled the need to confront and resolve experiences equating to what Westphal and Bonanno (2007) refer to as pragmatic coping or “coping ugly” (p. 422). During this phase, the swimmers’ adversity-related experiences were assimilated into existing schemas which left them with unresolved issues (Payne, Joseph, & Tudway, 2007) and susceptible to further traumatisation. Interestingly, research that has explored adversity and growth in sport performers occasionally cites growth theory in the review of literature or as a potential future research direction (see Galli & Reel, 2012a, 2012b; Tamminen et al., 2013; Wadey et al., 2013), but none discuss assimilation or ruminative brooding and their role in the experience of growth. In part contrast to findings reported in the general psychology literature which have indicated that assimilation-related processes such as intrusive and ruminative brooding are not associated with growth (Stockton, Hunt, & Joseph, 2011), the findings suggest that they may be apparent in the initial phases of the transition between adversity and growth.

A pivotal phase in the transition and transformation to growth involved the majority of the swimmers questioning the performance narrative and shifting to a quest narrative of self-discovery. This change of outlook represents a “confidence in what is waiting to emerge from suffering” (Frank, 1995, p. 171). The questioning (and sometimes rejection of) the dominant (performance) narrative is a novel finding in the growth research. For these swimmers, it involved the search for meaning in their adversity-related experiences, the reframing of their myopic focus, and the illumination of other (non-performance) aspects of their lives. This is consistent with the affective-cognitive processing model of posttraumatic growth (Joseph et al., 2012) which illustrates a link between positive appraisal mechanisms, labelled as reflective pondering, and an individual modifying their pre-event assumptions, labelled as accommodation. The enlistment of social networks was vital during this phase and supports the findings of previous sport growth research (see Galli & Reel, 2012a; Tamminen et al., 2013).

In addition to superior performance, growth-related experiences in these Olympic gold medallists were represented by enhanced relationships, spiritual awareness, and prosocial behaviour. As noted above, social support is reported in this study and in previous research as a facilitator of growth but, in accepting social support, the swimmers found that their relationships with family, friends and coaches were enhanced. Turning to spiritual awareness, two male swimmers exhibited increased spirituality which, while lending support to previous general psychology research (see, for a review, Shaw, Joseph, & Linley, 2005), differs somewhat from Galli and Reel’s (2012a) finding that female sport performers are more likely

than males to experience spiritual change during adversarial growth. Perhaps the ultimate indicator of growth was the observable actions (cf. Hobfoll et al., 2007; Westphal & Bonanno, 2007) associated with assisting and supporting others in the form of prosocial behaviour. Galli and Reel (2012b) reported similar findings with respect to altruistic acts which they suggested might be encouraged by the team environment in collegiate sport. This hypothesis was not, however, supported in the swimmers' highly individualistic accounts but an alternative explanation may be that they experienced an increased awareness of pain and suffering, which stimulated feelings of empathy and responsibility, and resulted in a commitment to helping others (cf. Staub & Vollhardt, 2008).

The findings have potential application in the competitive swimming environment for sport psychologists and coaches working with elite level swimmers and for the parents and significant others involved with them. Although even the most severe adversity has the potential to have a powerful positive impact on swimmers, it is important to highlight the difference between unavoidable events and imposed difficulties. For unavoidable adversities, psychologists and coaches should be aware that swimmers may initially attempt to maintain normality by engaging with maladaptive coping strategies. These swimmers should be carefully and patiently observed, with an appropriate practitioner letting it be known that he or she is an available "empathetic expert companion" (Tedeschi & Calhoun, 2009, p. 215). When the swimmer is receptive to this or similar support, various counselling and supportive interventions can commence. Such strategies may include using role models, such as the Olympic champions quoted in this study, to help the swimmer find meaning in their adversity-related experiences. Arguably a more complex practical issue than unavoidable adversities is the imposition of difficulties. Psychologists and coaches should seek to create an environment with regular appropriate challenges that help swimmers to develop (cf. Fletcher & Sarkar, 2012); however, there may come a point when these practices contribute to or become inappropriate adversities that have a negative impact on performance and/or well-being. Practitioners therefore need to maintain a reflective outlook that constantly reviews the consequence of their practices (cf. Knowles, Gilbourne, Croyley, & Dugdill, 2014) because, if they do become an active agent in an (inappropriate) adversity, it is likely to compromise their ability to facilitate growth.

A noteworthy strength of this study is the use of autobiographies that span top sport performers' lives and provide valuable and privileged insights into psychosocial processes and changes. Notwithstanding this strength, these accounts are influenced by the writers' motives and biases, their ability to recall events and experiences, and others' expectations and potential

judgments. For example, the production of the autobiographies as “a commercial commitment” (Thing & Ronglan, 2011, p. 280) may impact on their “unmediated authenticity” (Smith & Watson, 2010, p. 69). Hence, commercial interests are likely to influence the length, depth and specific content of the narratives, which will dictate the inclusion and relevance of the psychosocial-related content. Another example, relates to in each of the autobiographies there being at least two individuals involved in the production of the narrative (including Tewksbury’s sole authored account where editorial input would have occurred). Smith and Watson (2010) noted that researchers should be mindful that collaborative texts represent cultural products with multiple voices, each vying for authority. Due to these and other potential influences, adopting a critical analytical stance in relation to the multiple autobiographies was essential to gaining insight into both the depth and breadth of the participants’ experiences. At a deeper level of profundity, the narratives provide a cultural script of elite Olympic swimming that represents both an adherence to accepted norms (e.g., commitment to intensive training), and also the reinforcement of beliefs, values, and behaviours (e.g., links between body image and disordered eating). Further, although the autobiographies are written for public consumption, the private meanings interpreted during the analysis maybe beyond the scope of the disclosure intended by the authors (Harrison & Lyon, 1993); as such I acknowledge the hazy divide between the public and the private in the stories told.

Future researchers investigating adversity and growth in sport should consider more sophisticated operationalisations of adversity that distinguish between acute and chronic stressor experiences, together with recognition of multiple and cumulative adversities. This is important because previous (non-sport) research has demonstrated differences between individuals’ experiences growth following a discrete and ongoing trauma (Sumalla et al., 2009) and in response to varying histories of adversity (Seery, 2011). In terms of the growth experienced by sport performers, it is interesting to note that Wadey et al.’s (2013) study of coaches’ perceptions of athletes’ stress-related growth following an injury identified a wider range of growth indices than reported in the present study. This could be due to the different focus of the studies, the different methodological approaches adopted, and/or the different vantage points of the study participants. Whatever the reason, further research utilising coaches’ and others’ perspectives of athlete adversity and growth experiences is required.

In conclusion, through the analysis of autobiographies this study has advanced understanding of how sport performers at the highest competitive level positively transform their experiences of adversity into growth. The findings resonate with the observation that “the way in which a man accepts his fate and all the suffering it entails . . . gives him ample

opportunity – even in the most difficult circumstances – to add a deeper meaning to life” (Frankl, 2006, p. 67). The Olympic champion swimmers studied in this research ultimately thrived in the face of adversity by adopting transitional–related strategies that helped them not only overcome their experiences but also, they believed, flourish as both sport performers and human beings.

CHAPTER IV

**ADVERSARIAL GROWTH IN OLYMPIC SWIMMERS: CONSTRUCTIVE
REALITY OR ILLUSORY SELF-DECEPTION?**

Introduction

Over the past few decades a paradigm shift has occurred in the psychology and trauma literature. This shift has involved a re-focusing of the empirical lens from the distress and pathology of traumatic experiences to growth and thriving in response to adverse events. Indeed, Christopher (2004) argued that “the normal outcome of stress is growth rather than pathology” (p. 75). Multiple studies have demonstrated positive change following adversity, to the extent that many individuals report development beyond their pre-trauma functioning (see, for a review, Linley & Joseph, 2004). This growth typically involves an increased appreciation for life, more meaningful relationships, an increased sense of personal strength, a change in priorities, and a richer existential and spiritual awareness (Tedeschi & Calhoun, 2004).

Within the literature, various terms have been used to conceptualize growth including posttraumatic growth (PTG; Tedeschi & Calhoun, 1996), stress-related growth (SRG; Park, Cohen, & Murch, 1996), and adversarial growth (Linley & Joseph, 2004). Several theoretical explanations of growth have been proposed (viz., Joseph & Linley, 2006; Zoellner & Maercker, 2006a) including a functional descriptive model (FDM) of PTG (Calhoun, Cann, & Tedeschi, 2010; Calhoun & Tedeschi, 1998; Tedeschi & Calhoun, 1995, 2004), an organismic valuing theory (OVT) of growth through adversity (Joseph & Linley, 2005), and an affective-cognitive processing model (ACPM) of PTG (Joseph, Murphy, & Regel 2012). These theories posit that growth arises out of a person’s struggle to deal with the shattered self (cf. Janoff-Bulman, 1992) that occurs as a result of a traumatic experience. According to the theories, this involves interaction between a variety of person and situational variables, central to which is an individual’s cognitive processing, that leads to the experience of constructive growth.

Researchers studying the psychology of sport have explored the perceived benefits (Wadey, Evans, Evans, & Mitchell, 2011), PTG (Crawford, Gayman, & Tracey 2014; Day, 2013; McDonough, Sabiston, & Ullrich-French, 2011; Sabiston, McDonough, & Crocker, 2007), and SRG (Galli & Reel, 2012a; Salim, Wadey, & Diss, 2015; Wadey, Clark, Podlog, & McCullough, 2013) experienced by recreational and competitive participants. Pertinent in the context of the present study is that several researchers have specifically studied the notion of

adversarial growth in athletes competing at non–elite (Galli & Reel, 2012b) and elite (i.e., Sarkar, Fletcher, & Brown, 2015; Tamminen, Holt, & Neely, 2013) levels. In terms of the elite sport research, Tamminen et al. (2013) found that as some international female athletes sought and found meaning in their experiences of adversity, they identified opportunities for growth associated with social support and as the performers realised the role of sport in their lives. Following interviews with Olympic champions, Sarkar et al. (2015) reported that the adversity–related experiences of trauma, motivation, and learning appear to play an important role in champions’ psychological and performance development. In the first study of this thesis reported in chapter three, it was found that Olympic champion swimmers who perceived their adversity–related experiences to be traumatic, initially adopted maladaptive coping strategies before seeking meaning in their experiences and turning to others for support. These strategies facilitated growth which was identifiable through superior performance, enhanced relationships, spiritual awareness, and prosocial behaviour. Collectively, the findings from these three studies suggest that adversarial growth is a real and constructive phenomenon that occurs in athletes who compete at the highest level of sport (cf. Crawford et al., 2014; Day, 2013; Wadey et al., 2013).

Although the notion of adversarial growth has received growing support in the sport and broader psychology literature, some scholars have questioned the veridicality of growth experiences (e.g., Maercker & Zoellner, 2004; Park, 2004; Zoellner & Maercker, 2006a; Wortman, 2004). In 2004, Maercker and Zoellner were unconvinced by some accounts and evidence of PTG and suggested that self–deception was occurring in an attempt to convince oneself of positive outcomes. They termed this self–deception as *illusory growth* potentially associated with denial, avoidance, wishful thinking, self–consolidation, or palliation and proposed the Janus–faced model of self–perceived PTG (Maercker & Zoellner, 2004; Zoellner & Maercker, 2006a). This model recognises and incorporates the constructive perspective of growth evident in other models of growth, such as the FDM of PTG (Tedeschi & Calhoun, 2004); however, what makes this model different from others is the inclusion of illusory growth. Drawing on Taylor and colleagues’ (Taylor, 1983; Taylor & Armor, 1996; Taylor, Kemeny, Reed, Bower, & Gruenewald, 2000) research on adjustment to threatening events, Maercker and Zoellner (2004) argued that people often respond to threatening events with mildly distorted positive perceptions of themselves, exaggerated sense of personal control, and unrealistic optimism (see also Zoellner & Maercker, 2006a). As such, illusory growth is associated with cognitive avoidance strategies as part of a coping process which will likely, in the longer term, have deleterious effects on adjustment. If in the shorter term, however, illusory

growth is accompanied by deliberate thinking about the trauma and active coping efforts it may serve a palliative function. Evidence supporting a two–component model of growth has been reported in victims of stressful life events (McFarland & Alvaro, 2000), parents of children treated for leukaemia (Best, Streisand, Catania, & Kazak, 2001), cancer patients (Sumalla, Ochoa, & Blanco, 2009; Widows, Jacobsen, Booth–Jones, & Fields, 2005), and motor vehicle accident survivors (Zoellner, Rabe, Karl, & Maercker, 2008, 2011).

Given the theoretical (cf. Maercker & Zoellner, 2004; Zoellner & Maercker, 2006a) and empirical (e.g., McFarland & Alvaro, 2000; Sumalla et al., 2009) advances in illusory growth, it is surprising that no sport psychology researchers have explicitly focused on or provided empirical data relating to its occurrence in athletes. Some have questioned whether growth actually occurs (Wadey et al., 2013) and acknowledged the possibility of the illusion of growth as a coping strategy (Tamminen et al., 2013). Additionally, in the conclusion to the study reported in chapter three there was an oblique reference to the potential for illusory growth: “The Olympic champion swimmers studied in this research ultimately thrived in the face of adversity by adopting transitional–related strategies that helped them not only overcome their experiences but also, *they believed* [italics added], flourish as both sport performers and human beings” (p. 53). In the present study, I extend the research in chapter three by adopting a critical stance on the veridicality of growth and by exploring Olympic swimmers’ experiences of constructive *and* illusory growth during their lives. Such an approach offers a more complete theoretical understanding of, and empirical insight into, sport performers’ experiences of adversarial growth across their lifespan.

Method

Design

This study’s design was guided by the principles of interpretative phenomenological analysis (IPA) which is a qualitative methodology that involves investigating the sense that individuals make of their experiences through a process of engaging with their reflections (Smith, Flowers, & Larkin, 2009). It is useful for better understanding psychosocial processes, particularly when they unfold over time (Brocki & Wearden, 2006). Thus, IPA was an appropriate methodology to explore the sense making and personal meaning in individuals’ self–reported adversity–related growth (cf. McDonough et al., 2011; Tamminen et al., 2013).

Researcher

In their discussion about the principles of IPA, Larkin, Watts, and Clifton (2006) emphasized that the interpretative explanations of the experiences investigated are “the function of the relationship between researcher and subject–matter . . . [and that] we *must*

identify the researcher as an inclusive part of the world that they are describing” (p. 107). As the analysis involves researchers’ interpretations of participants’ interpretations of their reported experiences it is possible that the findings are incongruent with participants’ accounts. Accordingly, it is important that researchers disclose their own background, values, and assumptions. I have a background and an interest in the sport of swimming and, therefore, have an understanding of the competitive swimming community, nomenclature, and culture. My epistemological stance can be described as constructivist in nature and assumes that experience is embedded within culture, language, and the social world. It is consistent with an ontological positioning that is in-between realist and relativist in “that while experience is always a product of interpretation and therefore constructed . . . it is nevertheless ‘real’ to the person” (Willig, 2009, p. 13).

Participants

A purposeful sampling procedure was adopted because IPA seeks to capture and represent idiographic phenomena (Smith et al., 2009). IPA is used with broadly homogenous groups (Brocki & Wearden, 2006) so inclusion criteria for participation in this study was that potential participants had competed in a swimming event at an Olympic Games since the year 2000 and were, at the time of the data collection, over the age of 18 years. Following institutional ethical approval, potential participants were contacted via swimming coaches and social media. Due to the idiographic nature of IPA, a sample of four swimmers (see Table 2) was selected, a size that is typical of other IPA studies (e.g., Caron, Bloom, Johnston, & Sabiston, 2013). The differences in the swimmers’ gender and dates of retirement allowed identification of convergence and divergence which may arise in the sample (Smith et al., 2009).

Data Collection

Semi-structured interviews, complemented by timelining, lasting between 60 and 90 minutes, were carried out. At the start of each interview, the participant was asked to draw a timeline of their experiences with a particular emphasis on their “life highs and lows”. Timelining, a form of graphic elicitation which records, extends, and deepens understanding of participants’ past experiences, provided a temporal foundation for the discussions that encouraged the participants’ recall (Sheridan, Chamberlain, & Dupuis, 2011). The use of chronological accounts can provide a useful structure for interviews and assists in “the process of entering the participant’s world” (Smith et al., 2009, p. 82) which is an essential component of IPA. The use of timelines therefore was valuable in this study for better understanding the relationships between adversities, trauma, and growth. The participants chose their own

Table 2

Participant and Adversity Details

<i>Participant Pseudonym</i>	<i>Gender</i>	<i>Olympic Games Participation</i>	<i>Age (years) at Olympic Games</i>	<i>Retirement</i>	<i>Main Adversities</i>
Aaron	Male	2004	27	After the 2004 Olympic Games	Illness, injury, organisational stressors
Tim	Male	2004 2008	21 25	After the 2008 Olympic Games	Poor mental health of family member, injury, performance slumps, organisational stressors
Katie	Female	2004 2008 2012	17 21 25	After the 2012 Olympic Games	Asthma, car accident, retirement, coach conflict, illness, performance slumps
Jessica	Female	2008 2012	18 22	Still competing (planning to retire after the 2016 Olympic Games)	Relationship difficulties, performance slumps, coach conflict, injury, living abroad

timeframe allowing them to focus on times when swimming and adversarial growth were salient in their lives. In addition to the timelining, the interviews were also informed by a schedule that contained questions and probes relating to adversity– and growth–related experiences. Importantly, similar to the procedure adopted by McDonough et al. (2011), the interviewer avoided explicit terminology referring to growth per se (e.g., PTG, SRG) in an attempt to avoid “a tyranny of positive thinking” (Lechner & Antoni, 2004, p. 39) whereby individuals experience sociocultural pressure to report positive outcomes of adversity. The interviews were recorded with digital audio equipment and, subsequently, were manually transcribed.

Data Analysis

The data was analyzed on a case-by-case basis in accordance with Smith et al.'s (2009) IPA six step process. This process began with me immersing myself in the original data by listening to the interview recording, by scrutinizing the associated transcript, and by inspecting the timeline (step one: reading and re-reading). Initial notes were then recorded in respect of the descriptive, linguistic, and conceptual meanings of the participant’s interpretations of his or her experiences and how these equated with the annotations on the timeline (step two: initial noting). In this study, this included noting the swimmer’s descriptions of adversity-related experiences, his or her narrative style (e.g., the use of first, second, and third person), the location of the adversity on the timeline, how it was illustrated on the timeline in comparison to other experiences, and the perceived impact of the adversities. The next step in the analysis involved the conversion of the initial notes into emergent themes (step three: developing emergent themes) which required my interpretation of the swimmer’s experiences. For example, some initial notes from step two related to the swimmer’s search for meaning following adversity; however, in the third step of the analysis it became apparent that some instances were about understanding why an event occurred whereas other instances involved appreciating the significance of an event in the swimmer’s lives. In this study, the former was interpreted as being indicative of illusory growth whereas the latter as being indicative of constructive growth.

The fourth step in the analysis involved using processes of abstraction to group similar themes and polarisation to differentiate between distinct and opposing themes (step four: searching for connections across emergent themes). Similar themes relating to perceived positive changes integrated into a pre-existing schema (labelled as assimilation of a positive

Table 3

Extract from Tim's Transcript

<i>Transcript</i>	<i>Exploratory Comments</i>			
	<i>Descriptive</i>	<i>Linguistic</i>	<i>Conceptual</i>	<i>Timeline evidence</i>
<p>It was [pause] obedience was what was expected of us. It was a dictatorship where obedience was expected of the athletes and if they didn't [pause] they stepped out of line they got castigated. So how did I deal with it at the time? I went through it because I thought it was what was required of an Olympic athlete who was about to go to the Olympics, and if you're a 20 year old kid being told by the powers that be that that's the way it works, you don't think to question it because you've never been to the Olympics before, because you don't know what's required of an Olympic athlete, because I hadn't walked that walk yet, I hadn't walked that line [pause].</p> <p>How did I deal with it? I went off the deep end for about 3 or 4 months [pause].</p>	<p>Required obedience – evidenced by, and reinforced by the terminology – dictatorship, obedience, castigated.</p> <p>Insight into the culture of swimming.</p> <p>Identification of coping strategies.</p> <p>This was what was expected – had no choice (lack of autonomy).</p> <p>Limited experience means that he didn't know what was required of him – lack of control.</p> <p>Impact of adversity. Initial strategy – “went off the deep end”.</p>	<p>Distanced by use of third person (if they didn't) – reference to self.</p> <p>Change from use of the first person to use of the second person – distances himself from the experience.</p> <p>Pause – indicates a moment of reflection</p>	<p>Reference to a lack of autonomy (relates to Deci & Ryan, 1985) Self-determination theory.</p> <p>A cultural script? Internalised (not questioning the narrative map)</p>	<p>Very low on the timeline – identifiable as one of his most severe adversities</p>

bias) and expressions of hope for the future (labelled as *developing a positive outlook*) were grouped together in a theme representing swimmers' manipulating their thoughts and interpretations with a positive bias (labelled as *cognitive manipulations*). Opposing themes, such as perceived positive changes indicative of a shattered and reformed schema (labelled as *positive accommodation*) and a change in one's identity (labelled as *identity change*), were grouped together in a theme representing swimmers' reflections on their experiences and interpretations in a meaningful way (labelled as *cognitive processing*). The penultimate step of the analysis involved repeating the first four steps for each of the (three remaining) cases (step five: moving to the next case) and then, in the final step, using an iterative approach the cases were considered together to identify connections, patterns, and differences between the cases (step six: looking for patterns across cases). This analytical process was reviewed by my supervisor and interpretations, apparent inconsistencies, and alternative explanations were discussed. Any differences between our interpretations were resolved through dialogue, and themes were refined and re-labelled accordingly.

Research Quality

To evaluate the quality of the research, Smith's (2011) guidance for evaluating IPA was applied to the research process and product. This study has a clear focus on Olympic swimmers' experiences of constructive and illusory growth during their lives. Multiple data collection methods, involving semi-structured interviews, timelines, and follow-up e-mail questions, were used to strengthen the quality of the data. The rigor of this research has, in part, been evidenced by giving some indication of the prevalence for a theme and by providing extracts from at least half of the participants. Sufficient space has been given to reporting illusory and constructive growth to provide an in-depth and balanced portrayal of the participants' experiences. The results go beyond description and involve presenting an interpretative commentary with each extract that attempts to make sense of the participants and their experiences. An important aspect of this interpretative process was the analysis of what the participants disclosed (and did not disclose) elsewhere in the interview (cf. Smith 2004). This was significant for this study because to interpret illusory growth I not only identified indicators of illusory growth but also an absence of constructive growth when a participant had claimed to have grown from adversity. The analysis pointed to convergence and divergence both within and between participants in terms of the extent to which the participants provided evidence for the veridicality of their growth experiences. In presenting the results, I have attempted to craft a carefully written narrative that provides the reader with a critical insight into the phenomena of growth as experienced by Olympic swimmers.

Results

The swimmers' experiences of growth were preceded by various adversities (see Table 2) which were typically represented as lows or slumps on their timelines. The adversities included injury, illness, relationship difficulties, organisational stressors, and performance slumps and were contextualised within a performance narrative (cf. Douglas & Carless, 2006) involving a real or perceived threat to the swimmers' identities. The adversities presaged perceptions of a loss of autonomy and feelings of isolation associated with a lack of support. Despite the inherently negative aspects of adversity, it was evident from the swimmers' interpretations that they also perceived positive consequences of their experiences. Analysis revealed that some of these positive outcomes were indicative of illusory aspects of growth, while other positive outcomes were more indicative of constructive aspects of growth (see Table 2). The initial period following adversity was typically characterised by self-deception, more illusory aspects of growth (e.g., denial), and fewer constructive aspects. As the temporal proximity from the adversity increased, the swimmers typically reported more constructive aspects of growth (e.g., disclosure and social support) and fewer illusory aspects. Accordingly, the themes are presented in a temporal fashion to portray this sequential process.

Swimmers' Experiences of Illusory Growth

Apparent in all of the swimmers' descriptions of their experiences were self-deceptive or illusory perceptions of growth (see Table 4). In the aftermath of their adversities, the swimmers used a number of strategies to negotiate their experiences. Initially, the swimmers were in a state of denial, but after a period of time they sought meaning in their experiences through the use of cognitive manipulations and the derogation of adversity-related experiences. In a number of instances, the adversities were perceived to have been resolved despite a paucity of evidence of change at either a cognitive or a behavioural level; I interpreted this as indicative of illusory growth.

Denial. To protect themselves against the impact of negative emotions and distress, and to safeguard their identities as world-class athletes, the swimmers used denial as a short-term palliative coping strategy. Denial was characterised by a failure to acknowledge the impact of the adversity, suppression of the emotional consequences of the swimmers' experiences, an avoidance of reminders of the stressor[s], and a failure to disclose the details of the adversities to their social networks. Interestingly from the perspective of better understanding growth experiences, although some of the swimmers explicitly recognised that they used denial, they still attempted to positively reinterpret their experiences by seeking out

Table 4

Olympic Swimmers' Experiences of Adversarial Growth

<i>Superordinate Themes</i>	<i>Themes</i>	<i>Subordinate Themes</i>
Illusory aspects	Denial	
	Seeking meaning	
	Cognitive manipulations	Assimilation of a positive bias Developing a positive outlook
	Derogation of adversity-related experiences	Comparison with others Temporal comparison with self
Constructive aspects	Enduring distress	
	Disclosure and social support	Sport psychologists Family Coaches
	Finding meaning	
	Cognitive processing	Identity change Positive accommodation
	Philosophical change	Greater appreciation of life A changed perspective Increase in spirituality Enhanced relationships
	Behavioural actions	Speaking out Philanthropic work

positive outcomes. Aaron explained that despite physically recovering from a life-threatening illness, he initially failed to acknowledge the impact that survival and recovery had on him. It was only when he met with a performance psychologist that he consciously recognised the enormity of his experience: “people had said it to me before but I didn’t necessarily feel it”. Tim was reflective about how he dealt with the consequences of a serious back injury and identified that denial was a strategy which allowed him to deal with the immediate aftermath:

There’s a certain extent of . . . you reject it. And whether it’s kind of alpha male machismo – ‘I’ll be fine’ – sort of approach, which is inherently illogical, [or] whether it . . . pushes you through, I’m not quite sure.

I interpreted a reticence to elaborate about certain experiences as evidence of suppression of the emotional consequences of the swimmers’ experiences. When asked to recall her feelings towards swimming following her poor performance at the World Championships, Jessica stated: “I don’t know, I can’t remember, I probably hated it”. In an attempt to avoid discussing her six months abroad which she perceived as an adverse experience, she used the term “whatever” as a barrier to having to reflect on the experience: “I went out there and started in January 2009 . . . [and] had six months of doing whatever”. In recalling the organisational stress that he endured during his preparation for his first Olympic Games, Tim’s intermittent tendency to use of the second person pronoun distanced his current self from his past experiences and was indicative of an avoidance of reminders of the stressors. This linguistic strategy created a distance from the authorising subject of the first person with access to subjective experience: “*you* [emphasis added] don’t think to question it because *you*’ve [emphasis added] never been to the Olympics before, because *you* [emphasis added] don’t know what’s required of an Olympic athlete”.

Even when the swimmers had acknowledged the enormity or the impact of the adversities to themselves there was a reluctance to disclose these experiences to others. Tim explained that a lack of maturity and confidence meant that he was unable to disclose his perceived injustice in response to organisational stressors. To identify the positive aspect of this experience he created a counter narrative of how, on reflection, he could have dealt with the experience:

I would have gone to the person at the top of the tree and . . . said, ‘I’m not going to do what you want me to do, because you don’t know me, you don’t know the way I need to perform and what I need to do to train’. And I know that now.

The reflections on failure to disclose or speak out was paralleled in Aaron’s experience of a catastrophic swim following an ill-advised attempt at motivational encouragement from an influential member of the organisation prior his Olympic race. In contrast to his eloquence

throughout the rest of the interview, I interpreted Aaron's use of profanity in respect of the outcomes of organisational stressors as evidence of his continued depth of emotion and unresolved issues:

I knew I was already fucked and I was like, 'Oh my God'. And I finished the race and it was a poor swim and a poor time. I was devastated. I never said to anybody at the time; I never even told my coach this is what [he] said to me.

Katie recounted not having the confidence to speak out about her deteriorating coach–athlete relationship. Instead of confronting her coach's lack of support, she adopted an avoidance coping strategy which involved leaving her coach in favour of another with a different coaching philosophy. However, she perceived the composite experience of coach–athlete conflict and avoidance coping as a positive experience: “[It] was probably the hardest year for me . . . that was really tough. I have definitely learned a lot from that”. In recalling her relationship with a controlling boyfriend who exhibited little support for her Olympic aspirations, Jessica identified keeping her feelings to herself resulting in her having to cope with the experience alone: “sometimes I cried . . . I didn't like to express what was going on. So, most of the time I just kept it to myself and I just got through it somehow. But it was hard”. Denial as a defensive mechanism circumvented any cognitive processing of the event and delayed any constructive growth–related experiences. However, after a period of denial, the swimmers typically acknowledged the traumatic aspects of their adversities and progressed towards a conscious need to seek meaning in their experiences.

Seeking meaning. In response to sometimes intrusive ruminations, the swimmers began to acknowledge the distressing nature of their adversities. Jessica attempted to make sense of her adversities which was evidenced by multiple examples of questioning throughout her interview. Often, however, she was seeking meaning and answers that were not forthcoming; consequently, she shifted her search for an explanation from her own internal ruminations to direct questioning of the interviewer: “I felt like I had worked so hard this year that I couldn't have worked any harder. And I was just thinking . . . what else can I do? I had had this dream vision of getting a medal and then, all the hard work, I can't work any harder. Like what else could I have done?” Katie also questioned her poor performance although, like Tim, her use of the second person pronoun in the interview suggested an attempt to distance herself from the distressing memories and any intrusive ruminations about her performances: “and *you* [emphasis added] go to it [a major competition] and *you* [emphasis added] don't swim very well and it goes through *your* [emphasis added] mind, 'why has that happened?'” Following his Olympic Games experience, which was characterised by over–training and

questionable decision-making by the performance management team, Aaron searched for answers surrounding some aspects of the experience. This search for meaning included focusing on the ill-effects of an energy drink provided for the swimmers at an Olympic holding camp: “I’ve looked into it after the fact and . . . a controversial substance was in this sports drink and it’s something that I now know, if exposed to sunlight for long periods, can have negative effects”. In explaining his poor swim at the Olympic Games, Aaron questioned the intentions of the individual who provided him with poor advice: “I think with hindsight ‘God damn it . . . what were you thinking, why did you say that?’ you know . . . it definitely had an impact on . . . that race”.

Cognitive manipulations. In an attempt to regain some semblance of normality, two of the swimmers, Jessica who was still competing and Katie who had recently retired at the time of the data collection, manipulated their thoughts and interpretations which involved the assimilation of a positive bias and the development of a positive outlook. There was some evidence that the Aaron and Tim also engaged in such cognitive manipulations and motivated illusions, but not to the same extent.

I interpreted that Jessica and Katie assimilated their adversities into pre-existing schema, typically in a positively biased way to protect their identities as their sense of control and self-esteem came under threat. Jessica’s perceptions of her lack of control over her own life and her self-esteem were negatively affected during her experience of living and training abroad. She described this period, during which she was over-trained and suffered depressive symptoms, as one when she felt “lost. I felt lost. I didn't know what I was going to do”. Yet, in contradiction, she reported what I interpreted as distorted positive perceptions of the experience and self-deception indicating assimilation rather than accommodation:

Competitive swimming over there [in America] is different and that was the good part.

And I grew as a person. But my swimming was getting worse and worse . . . [but] . . .

I can honestly say that if I hadn't have gone to [there] I would probably have stopped.

Identification of growing as a person is incongruent with the description of her experiences as her swimming performance was in decline. Moreover, her use of “probably” and “honestly” in her quote further indicates the uncertainty that she felt about being abroad. I interpreted that her defensive distortion of the benefits of living abroad may have been driving her perceptions of growth. In order to protect her identity as a world-class swimmer, she attempted to re-establish that identity by moving back to her home country. This was characteristic of her behaviour; when her identity was threatened, Jessica made “fresh starts” which restored her perceptions of personal control and stimulated (unrealistic) optimism and hope for the future:

“I got a bronze medal at Commonwealth Games . . . but I could have done a lot better than I did. After that I decided to come home”.

Katie assimilated a positive bias in her reflections on having to retire as a result of her asthma which had threatened her identity as a world-class athlete. She explained how “just” qualifying for the national team following her previous successes was a major shock to her beliefs about her identity and performance capabilities: “I’d made the Olympics final and got an Olympic medal. I’ve broken world records. I’ve medalled at every major championship. . . . I went to Commonwealth trials . . . only *just* to make the team, which was a massive shock”. However, time allowed Katie to prepare for the transition to retirement and to assimilate that knowledge in a positive way which gave her the illusion of having control over her decisions and maintain her fragile self-esteem: “I had known . . . it was going to be my last meet, and I prepared myself for it. It was sad and upsetting to kind of leave it all behind but . . . I was ready to do something different”.

The swimmers explicitly presented a positive outlook in terms of both their hopes for the future and in their manipulation of their environments; I interpreted that this was particularly the case for Jessica, who was still competing at the time of the data collection and, as a consequence, was vulnerable to future disappointment in the performance domain. She explained that in the future she hoped to be: “enjoying myself and I have these goals for the next 3 years and putting 100% into that . . . being happy with myself and giving it my best shot”. In an attempt to buffer the impact of the adversities and possibly protect themselves from future setbacks, the swimmers attempted to create a positive environment in which they could restore the positive assessments of self, perceptions of personal control, and optimism for the future. Katie explained that she: “take[s] the positives out of everything. . . . I never surround myself by negative people, I always surround myself with positive people”. Tim identified a strategy he used following the Olympic Games: “I needed to remove myself from the environment and distance myself from all things swimming and enjoy the life outside of the pool”.

Derogation of adversity-related experiences. In addition to the cognitive manipulations, the swimmers also belittled their situation and attributes to maintain their self-esteem. They did this, firstly, by comparing their situation to others who they perceived as worse off than them and, secondly, by comparing their current attributes about the adversity to those they made in the past. I interpreted these social and temporal comparison strategies as comprising illusions that involved derogation of adversity-related experiences. In making sense of their experiences, several of the swimmers engaged in social comparison with others and identified that in comparison to others’ experiences their experiences were not *that*

traumatic. I interpreted that this allowed the swimmers to bolster, or at least maintain, their self-esteem. In reflecting on her performance slumps, Katie compared herself with other undefined individuals: “I now look back and think, ‘well it wasn't so bad – worse things in life can happen than not compete very well’”. She reflected on the opportunity to do charity work in Africa and how it allowed her to put her performance slumps into perspective: “there are so many other things in life [than swimming], I think I've realised that what could have happened, could have been so much worse. You don't realise it at the time”.

On occasions the swimmers' perceptions of growth were attributable to temporal aspects and the depreciation of the impact of their negative experiences giving the illusion of positive change. When Jessica was asked about the amusement that she displayed, inferred by laughter, when describing her reaction to a significant injury some years previously, she claimed that her initial negative emotions were “silly”. She explained that although at the time the consequences of the injury were devastating for her, it did not adversely impact on her swimming career and, therefore, its relevance in respect of her identity and beliefs about her current self were diminished: “I'm trying to remember looking back how upset I was. Anyway, obviously I didn't know what was to come and now I know that it was silly getting upset about it; it wasn't a big deal”. This strategy was repeated in looking back on a controlling relationship, yet on this occasion not only did she explicitly identify that her response to experience was inappropriate but also that it had positive outcomes: “I was under the love spell where you don't realise what's going on. I think now it was so silly, but . . . you have to go through these things and these phases. I think it probably made me stronger”. Katie engaged in temporal comparison with her current self to counter the extreme emotion associated with retirement that she had described as “hard. It was hard, harder than I ever thought it would be [but] it was an exciting change because . . . you realise that swimming wasn't that hard!”

Swimmers' Experiences of Constructive Growth

Apparent in some of the swimmers' descriptions of their experiences were constructive or functional perceptions of growth (see Table 4). For Aaron and Tim, whose retirements from competitive swimming were in 2004 and 2008 respectively, the analysis revealed enduring distress, a need to disclose their adversities (despite initially engaging in denial), and engagement with their social support network. With support, the swimmers were able to move beyond their initial questioning to find meaning in their experiences and to appreciate the significance that the adversities had on their lives. Following this transformational process, the swimmers engaged in more meaningful cognitive processing, exhibited a change in life philosophy, and behavioural actions indicative of constructive growth. For Katie, who retired

in 2012, the analysis revealed some aspects of constructive growth, while Jessica, who was still competing at the time of data collection, provided the least evidence to support this superordinate theme. Hence, it appears that the passing of time and possibly retirement from sport, and associated distancing from events and broadening of experiences, can facilitate the realisation of constructive growth.

Enduring distress. Distress was evident in all of the swimmers' accounts of their experiences. For example, after a disappointment at the World Championships, Jessica experienced considerable anguish: "I got really depressed, I couldn't sleep and was crying a lot". However, what distinguished constructive growth from illusory growth in the swimmers was the *ongoing* nature of this distress. More specifically, the absence of distress was interpreted as a self-deceptive optimistic bias whereas the enduring presence of distress was interpreted as a form of acknowledging the adversity and the impact it had. Constructive growth involves making genuine changes as part of a disruptive and distressing process. Tim and Aaron, in particular, experienced ongoing and enduring distress, although both swimmers acknowledged that there were periods of relief. Tim used metaphors and annotations on his timeline to explain his journey from adversity to growth; on two occasions in the interview he referred to this process as a being like a "rollercoaster":

It was a hellish slog that was blood, sweat, guts, tears. . . . the road to the Olympics had some of the highest highs and some of the lowest lows and, in short, was an emotional rollercoaster – one which caused considerable anguish and heightened emotions.

In contrast to the eloquence used to articulate his experiences of injury and illness, the enduring distress that Aaron experienced as a result of organisational stressors was apparent in his use of the profane when he described the interference of a performance director in his race preparation: "I was fucking so pissed off with hindsight about that. It was the wrong choice for [him] to step in and say that to me, literally minutes before my race".

Disclosure and social support. After an initial period of non-disclosure, the swimmers began to reveal aspects of their adversities and seek support from the people around them. This social support came from three distinct sources: a sport psychologist, family members, and coaches. Three of the participants confided in an individual with sport psychology expertise to help them to negotiate their adversities. Tim reflected on his continuing engagement with a sport psychologist: "I'm still in touch with this person today, very, very sporadically. They reached out . . . and we went through a process and came out the other side". Jessica explained that she has remained in contact with a sport psychologist for nine years: "I speak to him quite a lot and he is probably the best guy to speak to". Aaron recalled that when he spoke to a sport

psychologist outside of his social network following his life threatening illness it allowed him to deal with the experience. The absence of emotional attachment gave Aaron the opportunity to disclose:

There was going to be no ramifications socially to telling this psychologist how I was thinking and feeling. It allowed me to actually open up, pretty much cry. . . . And as soon as she said, ‘you’ve been through something terrible,’ it dawned on me that I had. For Aaron, his relationship with this individual was significant and had implications both in respect of his enhanced performance and his psychological wellbeing:

I would never have got into the Olympic Games, never have become the swimmer I was . . . if it weren’t for the significant changes I made and significant learnings and growth that I went through as a consequence of my meeting with [a performance psychologist].

Family members were identified as critical in the swimmers’ lives, not just in respect of the adversities that they experienced, but also in the knowledge that family would be there for them if and when they were needed. Tim described the level of support that his parents provided: “I owe absolutely everything around my career, swimming career, and post swimming career, to . . . what my parents did. Unquestionable, often illogical, ridiculous amounts of support coming . . . from them”. Jessica explained that: “I talk to people I am close with, my parents and my sister and my friends who understand, and we do things completely away from swimming – shopping or go to a movie or whatever”. Katie stated that: “I’ve got a great family that have always supported me”.

Although their relationships with their coaches comprised a source of conflict for Katie and Jessica, Tim provided a different perspective on his relationship with his long-term coach: “we fought like cat and dog. . . . Any disagreement there was was purely performance related or training related . . . I had a very, very strong relationship [with him], but it is very hard to define”. He went on to explain: “If I ever got into serious trouble, for whatever reason it was, whether it was financial or whether I needed help with someone, he’d be the first person I’d pick up the phone to.” The linguistic strategies employed in this description of his relationship with his coach are interesting; the implication being that the coach-athlete relationship is strong and supportive, yet the tense used is future, suggesting that the opportunity for support is still there if required or, alternatively, that the opportunity for support was there but that it was not acted upon.

Finding meaning. Although seeking the meaning of the adversities was apparent in all of the swimmers, constructive growth was identifiable when the swimmers were able to

progress to finding meaning, a process that often takes time. Tim acknowledged that the process of finding meaning in his back injury and the organisational stressors that he had experienced was unpleasant and took time: “[It] was a horrible process, a very, very slow process as well”. Aaron stressed the importance of identifying the right time to address the emotional aspects of his illness, and that it was important for him to resolve the physical aspects of his illness first. The focus on the physical allowed Aaron the opportunity to postpone addressing the fundamental threats to his identity and wellbeing: “I think I had to be physically better before I could . . . stop and think about it, ‘what have you just been through?’” The focus of this process went beyond the comprehensibility of the adversities to appreciating the significance of an event in the swimmers’ lives. For Aaron, it was engagement with his sport psychologist that allowed him to acknowledge and make sense of what had happened:

For the clavicle fracture, [working with a sport psychologist] was about removing the gremlins that were blocking me from full, relaxed, optimal, sports performance. . . . From a psychological perspective, the illness recovery was more about . . . emotional cleansing and psychological cleansing: ‘God I’ve been through something ridiculous here, something enormous’. I just needed to acknowledge that to myself with someone before I could move on.

Cognitive processing. The two male swimmers cognitively processed their experiences involving a change to their identities and the positive accommodation of their adversities (as opposed assimilation into pre-existing schema). This involved a more fundamental transformation in the swimmers than the cognitive manipulations and motivated illusions associated with illusory aspects of growth. Aaron acknowledged a number of identity changes that were evidenced through recognition of his different selves: “I picture my relationship with my past self, my Olympic self, and the Olympics as sort of like a mentoring voice that questions you at the same time”. Tim identified that as an outcome of his adversities he experienced a change in how he approached life: “I’ve become a more pragmatic person, rather than somebody who is emotional and maybe a bit of a romantic about the sport and didn’t temper that with just level-headedness”.

Descriptions that referred to events that suggested a shattering and reforming of schema were interpreted as indicating positive accommodation. Aaron described a restructuring of his beliefs about his illness and his first clavicle injury. He described the depth of mental processing and reflective pondering that he engaged in with his performance psychologist, which not only allowed him to focus on the active mastery of his skills but also his perceptions of genuine growth:

It was a sense of starting again, [but] it wasn't a sense of 'right everything's fine now'; it was a . . . moment of feeling cleansed . . . being re-born. And then it was about re-growth. I still had to go back to my training . . . and start again to become better as a swimmer. . . . but the tools that [the psychologist] had given me . . . [to] break it down physically, mentally, and technically . . . allow[ed] me to grow in the most efficient way.

Philosophical change. Philosophical change involved a greater appreciation of life, a change in perspective, increased spirituality, and enhanced relationships. In discussing his life-threatening illness which resulted in non-qualification for the 2000 Olympic Games, Aaron explained: "I'm really glad that I was close to death because it's made me appreciate my life so much more, in everything that I do. I take so much pleasure and satisfaction from very small things in life". He also explained that being ill amplified the importance of swimming and his Olympic goal:

I suddenly valued what it was that I had, more than I had before, and it's perhaps not until someone has taken something from you or threatened to take it from you . . . that it gets magnified how much you want it and it gets focused.

Following retirement, Aaron no longer had to conform to the performance narrative and this allowed him to appreciate the luxuries that he sacrificed as a result of his swimming career: "I like that I can now have a glass of wine and a nice meal and not worry about the calorific damage to my sports performance. . . . I used to have to sacrifice that in a sporting life". Tim explained a change in perspective towards his goals; although still being driven towards performance success his approach altered as a result of perceived failures, injury, and other adversities:

I then sort of had a mentality shift in my whole career. . . . When you have a performance that knocks you for six, or an injury that knocks you for six, you have to. . . . Your mentality doesn't need to change per se, but it needs to take on a slightly different tangent, in that it needs to become more logical.

Of all the participants, only Aaron explicitly identified an increase in spirituality but his description was significant in that it indicated a fundamental philosophical change. He referred to the illness experience as a "rebirth" which I interpreted as being integral to his growth experience. He further stated: "an openness to be spiritual has always sort of been with me, but it was definitely greater after this. I think that near death experience and the re-born, or re-birthing experience, heightened it I would say". The swimmers identified enhanced relationships as a result of their adversities but this only came after a period of time when they

had had the opportunity to reflect on their past experiences. For Aaron, the spirituality that he experienced was demonstrated in the way he now perceives his family: “I find the spiritual lifeline in nature, in the world, in my own existence in life, and in friends and family”. Katie explained that: “it wasn't until I retired that [I] realised swimming isn't everything, that there is more to life than . . . being a swimmer, and your family – whether it's mum, dad, partner – are the most important people in your life”. In discussing his performance slumps, Tim identified that it was in the aftermath, “that family bonds become strongest”.

Behavioural actions. There was some evidence of the swimmers' behaviours and actions changing as a result of their adversities and involved them speaking out and engaging in philanthropic work. Although the initial response to adversity was a reticence to disclose, following cognitive processing and the enlistment of social support, the swimmers recognised that concealment of their adversities was not an adaptive strategy and they could articulate their thoughts. Katie explained: “I definitely learned . . . that I could speak my mind a lot more. . . . because I found that if you let things fester, it gradually gets worse and worse and worse”. She interpreted that her charity work in Africa was only possible because she had retired and that engagement in philanthropic work was a necessary part of her growth experiences. This was interpreted as the demonstration of her openness to new experiences: “I've never felt like I did when I was out there. . . . It was once-in-a-lifetime opportunity. . . . It does make you feel better about yourself that you give something back”. Aaron reflected on a desire to give something back to swimming and explained the work that that his aquatic business has engaged in to improve the lives of future generations: “If I were to advise youngsters . . . helping people improve and get better, for me it's how you can have a happier sporting life, aside from a better performance sporting life”.

Discussion

Using IPA of interviews and timelines, this study extended the findings of adversarial growth in Olympic swimmers (see chapter three) by exploring experiences of constructive *and* illusory growth. Consistent with the findings of previous research in elite sport (e.g., Sarkar et al., 2015; Tamminen et al., 2013), the findings revealed perceived positive consequences of adversarial-related experiences; however, in contrast to this research some of these positive outcomes were indicative of illusory aspects of growth whereas others were more indicative of constructive growth. This finding is consistent with theoretical (cf. Maercker & Zoellner, 2004; Zoellner & Maercker, 2006a) and empirical (e.g., McFarland & Alvaro, 2000; Sumalla et al., 2009) advances in the broader psychology and trauma literature. The identification of both illusory and constructive growth in this study does not imply that reports of growth are mutually

exclusive, rather that aspects of both may temporally fluctuate or even co-exist. In concordance with the proposals of the Janus-faced model of self-perceived PTG (Maercker & Zoellner, 2004; Zoellner & Maercker, 2006a), the findings suggest that the initial period following adversity was characterised by more illusory aspects of growth and fewer constructive aspects of growth in all of the swimmers. As time passed, two of the swimmers (who had retired some time prior to the interviews) displayed more constructive and fewer illusory aspects, whilst the other two swimmers (one of whom had recently retired and the other who was still competing at the time of the interview) continued to display more indicators of illusory growth. This finding in part supports Zoellner and Maercker's (2006b) observation that "with growing coping success, the illusory side loses importance over time and the constructive side gains impact over time" (p. 349). Interestingly, it appears that retirement may play an important role in the evolution of growth experiences due to the associated distancing from events and broadening of experiences which may facilitate constructive growth (cf. Coakley, 1983).

As noted above, illusory and constructive growth both involve perceived positive consequences of adversarial-related experiences. Although the findings suggest that both types of growth have different aspects or indicators, it appears that temporality is significant in that those who exhibit constructive growth experience some aspects of illusory growth in the past. One such aspect is denial which although self-deceptive was used by the swimmers as a short-term palliative coping strategy. This adaptive aspect of denial is important to highlight because denial is often reported as a maladaptive response to stressful events (Ivarsson, Johnson, & Podlog, 2013; Wadsworth, 2015). However, in concordance with Maercker and Zoellner's (2004; Zoellner & Maercker, 2006a) theorising, denial if accompanied by deliberate thinking about the trauma and active coping efforts may serve a palliative function. Another aspect of illusory growth is the search for meaning following adversity that involves posing questions akin to "why me?" and "why did it happen?" The purpose of these deliberate reflections is to comprehend and understand why an event occurred. This finding supports tenets of several of the growth-related models and theories that the search for meaning is part of the growth process (Tedeschi & Calhoun, 1995; Joseph & Linley, 2005) but the findings suggest that if this search (regardless of outcome) focuses solely on comprehension (rather than significance) then the growth remains illusory in nature (cf. Park, 2010).

Other aspects characteristic of illusory growth were cognitive manipulations and the derogation of adversity-related experiences. Throughout the experience of illusory growth the swimmers used palliative coping strategies that were typically emotion-focused in nature.

These strategies have been referred to in the growth literature as self-enhancement cognitions (Maercker & Zoellner, 2004) and were employed by the swimmers to reduce distress and to defend or maintain aspects of their identities. The swimmers' use of optimistic language about some aspects of their experiences is consistent with Zoellner et al.'s (2008) finding that optimism is a proxy for illusory growth. Regardless of how realistic this optimism was, illusory growth was also characterised by unconvincing claims to have grown that were not accompanied by consistency of accounts and evidence of transformational change. It has been argued that such claims represent defensive distortions (Wortman, 2004) in an attempt to defend an identity (Sumalla et al., 2009), as opposed to identity transformation. Although self-deception has the potential to have a deleterious impact on an individual, I am not suggesting that illusory growth is negative per se. Rather illusions and self-deceptions can (and do) serve a positive psychological and performance development function (cf. Alicke & Sedikides, 2009; Taylor, 1983). Indeed, several decades ago, Taylor (1983) discussed "illusion as essential to normal cognitive functioning" (p. 1167) and concluded that "the effective individual in the face of threat, then, seems to be one who permits the development of illusions, nurtures those illusions, and is ultimately restored by those illusions" (p. 1168).

Constructive growth was characterised by veridical transformational changes in the swimmers' lives that went beyond motivated illusions, wishful thinking, and defensive distortions. One aspect of constructive growth was the swimmers' enduring distress. Although it may appear counterintuitive to suggest that ongoing anguish is indicative of transformational change, the findings suggest that enduring distress represents an acknowledgement of the adversity and the impact it had, as opposed to an absence of distress which represents a self-deceptive optimistic bias characteristic of illusory growth (cf. Taku, Calhoun, Cann & Tedeschi, 2008; Tedeschi & Calhoun, 2004). As noted above, although denial was often experienced as (an early) part of the growth process (as an aspect of illusory growth), it was the disclosure of adversity-related experiences and the seeking of social support that was indicative of constructive growth (cf. Prati & Pietrantonio, 2009; Tamminen et al., 2013). In a similar way, meaning and comprehension were often sought as part of the growth process (as an aspect of illusory growth), it was the finding of meaning and appreciation of the significance of an event that was indicative of constructive growth (cf. Day, 2013; Park, 2010). However, perhaps the main differentiators between illusory and constructive growth were the manipulation versus the processing of cognitions respectively, and the associated integration into a pre-existing schema (i.e., assimilation) versus the shattered and reformation of schema (i.e., accommodation) respectively (cf. Payne, Joseph, & Tudway, 2007). Further, in addition to various indices of

philosophical change (Galli & Reel, 2012a; Tedeschi & Calhoun, 1996), I also found that meaningful behaviours and actions appear to distinguish between illusory and constructive growth (cf. Hobfoll et al., 2007; Shakespeare–Finch & Barrington, 2012).

In their critical evaluation of the use of IPA in psychology research, Brocki and Wearden (2006) highlighted the importance of acknowledging the limits of the representational nature of the data. A limiting aspect of the data in the study is that it is restricted to retrospective self-reports of growth that conform to a possible cultural script present in elite swimming; that is, exaggerated expressions of positive behaviours in response to adversity. To partially circumvent this issue, growth researchers should consider obtaining data from social networks (Wortman, 2004), such as family, friends, partners, coaches (see, e.g., Wadey et al., 2013), and support staff, who may be in a position to provide further insight into adversarial growth. Furthermore, during the interviews for this study, several of the participants alluded to the impact that their experiences had on significant others. With the exception of Day and colleagues' studies of the impact of witnessing a traumatic injury of an athlete (Day, Bond, & Smith, 2013; Day & Schubert, 2012), there is no research exploring vicarious growth (Linley et al., 2003) in the sport domain.

In conclusion, this study has extended the extant sport psychology literature by adopting a critical stance on the veridicality of growth. The findings revealed aspects of both illusory and constructive growth and provide support for a two-component model of growth (cf. Maercker & Zoellner, 2004; Zoellner & Maercker, 2006a). It appears that the initial period following adversity is typically characterised by more illusory aspects of growth, whereas when the temporal proximity from the adversity increases more constructive aspects of growth are apparent. Retirement may play an important role in the evolution of growth experiences due to the associated distancing from events and broadening of experiences which may facilitate constructive growth. Interestingly, the findings indicate that sport psychology support was perceived as beneficial in negotiating adversities and experiencing growth. This line of research inquiry has important theoretical and practical implications for the field of sport psychology and the support of athletes' performance and well-being.

CHAPTER V

COACHES' CORROBORATION OF ELITE SWIMMERS' PERCEPTIONS OF ADVERSARIAL GROWTH

Introduction

Since the early 1990s, a burgeoning accumulation of evidence from the oncology (e.g., Sumalla, Ochoa, & Blanco, 2009), trauma (e.g., Polatinsky & Esprey, 2000), general psychology (e.g., Park, 2009), and sport performance (e.g., Tamminen, Holt, & Neely, 2013) literature has suggested that positive outcomes, broadly termed as *adversarial growth* (Linley & Joseph, 2004), emerge from many individuals' experiences of adversity. This phenomena has been identified in studies that have explored a number of adverse experiences including those of cancer sufferers (e.g., Arpawong, Richeimer, Weinstein, Elghamrawy, & Milam, 2013), terrorism survivors (e.g., Hobfoll et al., 2007), bereaved individuals (see, for a review Michael & Cooper, 2013), and injured athletes (e.g., Wadey, Evans, Evans, & Mitchell, 2011). However, as more studies contribute to this increasing body of evidence, it has become evident that there is some confusion surrounding the nomenclature of growth which exists in a number of areas. Areas that particularly warrant further clarification are in respect of the terms that are used to refer to the broad construct of growth and the identification of growth.

There is little consensus about the terminology that should be used to conceptualise growth, or more broadly speaking, the positive outcomes of adversity. The concept has been referred to as *perceived benefits* (Affleck, Tennen, Croog, & Levine, 1987), *positive changes in outlook* (Joseph, Williams, & Yule, 1993), *stress-related growth* (SRG; Park, Cohen, & Murch, 1996), *posttraumatic growth* (PTG; Tedeschi & Calhoun, 1996), *thriving* (Carver, 1998), *positive by-products* (McMillen, Howard, Nower, & Chung, 2001), *positive adaptation* (Linley, 2003), and *adversarial growth* (Linley & Joseph, 2004). Although it has been argued that these different terms are all assessing the same broad construct (Joseph, Linley & Harris, 2004), and they all refer to the positive changes that are identifiable in the aftermath of experiencing trauma, adversity, or exposure to stressor(s), there are some differences in conceptualisation of these related concepts which tend to revolve around the level of stress exposure and the severity of the trauma (Cho & Park, 2013). McMillen et al. (2001) introduced and used the term *positive by-products* because they perceived that the term *growth* has connotations that imply that positive changes are internal, whereas some of the positive changes that occur after adversity are relational; therefore they argued that the presence of positive changes alone cannot constitute growth. Nevertheless, despite this argument the term positive

by-products has not yet been widely adopted. However, where there is some conceptual divergence is between growth and finding (or perceiving) benefits (Aspinwall & Tedeschi, 2010; Sears, Stanton, Danoff-Burg, 2003), although some researchers have used the terms interchangeably (e.g., Helgeson, Reynolds, & Tomich, 2006; Siegel & Schrimshaw, 2000). Growth refers to the positive and enduring change experienced through the struggle with a major crisis (see Tedeschi & Calhoun, 2004), whereas finding benefits involves little more than the acknowledgement that something good has come of an adverse experience (see Helgeson, Reynolds, & Tomich, 2006).

Although it has already been noted that the terms utilised in the growth literature appear to be assessing the same broad construct (Joseph et al., 2004), it has to be acknowledged that irrespective of the term used there are differences in the mechanisms that bring about the identification of positive outcome following adversity. This was articulated in the Janus-face model of PTG (Maercker & Zoellner, 2004, Zoellner & Maercker, 2006a) which identified that there are two sides to growth: the functional or constructive side of growth is analogous with the model of growth described by Tedeschi and Calhoun (2004), and an illusory side of growth which involves the identification of inherently positive and motivated illusions (cf. Taylor, 1983), such as an unrealistic optimism about the future following trauma. These positive aspects are essentially self-enhancing illusions to alleviate stress. Accordingly, it is important that researchers acknowledge the differences between functional and illusory growth, and explore the different mechanisms of growth. Nevertheless, irrespective of whether growth may be characterised as functional or illusory, the identification of growth tends to be restricted to the cognitive and emotional aspects of the growth process. In addressing this myopic focus, Helgeson, Reynolds, and Tomich (2006) argued that growth has to go beyond cognitive processes to make real life changes which will invariably be characterised by a process that is disruptive and distressing. Hobfoll et al. (2007) distinguished between the behavioural changes that are coined as actions underpinned by cognitive processing, and the process of coping with the traumatic experience. The authors argued for an identification of “action growth whereby an individual actualises their benefit-finding cognitions – or reifies their illusions through action” (p. 360). They identified that Deci and Ryan’s (1985) self-determination theory (SDT) provided some explanation to understanding the action characteristic of growth. Hobfoll et al. (2007) argued that traumatic experiences are likely to undermine the basic psychological needs of competence, autonomy, and relatedness, central to SDT. Consequently, following adversity, individuals are motivated to restore and fulfil these basic needs which cannot be achieved through cognitive meaning-making alone but requires some translation into action.

The second area that warrants clarification relates to the identification of growth. Cho and Park (2013) argued that in addressing the validity of growth there must be a distinction between *perceived* or *reported* growth and *actual* or *measured* growth. They recognised that most growth research is reliant on individuals' self-reports which they argued is "a severe limitation" (p. 76) especially given that they identified that a review of the studies showed that the majority of people report growth following adversity. They argued that reported growth may not reflect actual growth because people want to demonstrate that they are coping/thriving (which is associated with the internalisation of a cultural script of adversity), that reported growth involves motivated illusions (cf. Taylor, 1983), that individual trajectories of growth can differ, and that people cannot accurately report their changes. According to their argument the use of self-report measures cannot reflect actual growth and therefore, has to be referred to as being reported or perceived growth. To address the problems associated with self-reports, they proposed that actual growth can be measured through the use of standardised instruments such as the Posttraumatic Growth Inventory (PTGI; Tedeschi & Calhoun, 1995) or the current standing version of the PTGI (C-PTGI; Frazier et al., 2009). These standardised quantitative measures have been widely utilised to explore growth (e.g., Baillie, Sellwood, & Wisely, 2014; Galli & Reel, 2012b) but have, by the very nature of their design, failed to address the lived experience of growth, which may be accessible through the use of qualitative methods.

Alternatively, Cho and Park argued that the use of longitudinal or prospective studies can overcome the issues with self-reporting. However, although several studies exploring adversarial growth in undergraduates have utilised a prospective design (e.g., Frazier et al., 2009; Gunty et al., 2011; Yanez, Stanton, Hoyt, Tennen, & Lechner, 2011) by attempting to measure growth as changes that occur between two points in time, to date these have only been over a very short time scale (i.e., two months). Short timescales are problematic as Helgeson et al. (2006) posited that growth identified in the immediate aftermath of a traumatic event may reflect a cognitive strategy to reduce negative emotions, whereas growth identifiable some time later may reflect actual growth. Although there is some merit in the arguments proposed by Cho and Park (2013), the use of the overarching term *reported growth* is somewhat limited when placed in a dichotomy with actual growth; within the term reported growth there is no scope for distinction between those indicators that suggest illusory growth (cf. Maercker & Zoellner, 2004) and those that suggest functional growth (cf. Tedeschi & Calhoun, 2004), for example, illusory growth indicators have also be identifiable in collaborated reports of growth (e.g., McMillen & Cook, 2003) and therefore these issues are not restricted to measured or reported growth. Furthermore, it is noted that there are inherent temporal issues in prospective

studies that have been carried out to date.

To counter these issues, Helgeson (2010) identified that “one can be more confident that an actual change has occurred in a person if it is corroborated by a significant other” (p. 549) and identified three studies (McMillen & Cook, 2003; Park et al., 1996; Weiss, 2002) that used corroborative accounts. Since the use of corroborating reports in these early studies, the approach has become more established with a number of studies using corroborative accounts to validate growth (e.g., Helgeson, 2010; Moore et al., 2011; Shakespeare–Finch & Enders, 2008; Tallman, Lohnberg, Yamada, Halfdanarson, & Altmaier, 2014; Wadey, Clark, Podlog, & McCullough, 2013). In a study that explored stress–related positive outcomes in college students, Park et al. (1996) identified that degree of closeness was a factor that would impact upon whether growth was identifiable by significant others. Consequently, many of the studies involved the sufferer identifying a nominated proxy to whom the individual felt close (e.g., McMillen & Cook, 2003; Tallman et al., 2014). Interestingly, although McMillen and Cook’s (2003) study into the positive by–products of spinal cord injury (SCI) found consensus between those with an SCI and their nominated proxy about positive by–products, there was little agreement on what they were and the extent to which they had occurred. This suggests that both the individual and the nominated proxy may be motivated to find some positive benefit and therefore provides support for the illusory view of growth and associated concepts. However, in exploring the experiences of trauma survivors, Tallman et al. (2014) found that with the exception of new possibilities, nominated collaterals accurately predicted the domains in which growth would occur and the extent to which individuals would experience growth.

Although interest in the growth experiences of sport performers has grown steadily since Udry et al. (1997) addressed the notion of positive outcomes from injury in sport, it has been acknowledged that there are areas that warrant further clarification within this performance domain. In a study that examined adversarial growth in college athletes using the Posttraumatic Growth Inventory PTGI (PTGI; Tedeschi & Calhoun, 1996) and supported the notion that college may be a growth enhancing experience for students, Galli and Reel (2012a) questioned the concept of growth as a unitary phenomenon and identified that SRG may not involve a permanent and enduring transformation. Furthermore, Tamminen, Holt, and Neely (2013) suggested that researchers distinguish between the illusion of growth as an emotion–focused coping strategy versus growth as a reality. Accordingly, the study reported in chapter four of this thesis explored the differences between constructive and illusory growth using interpretative phenomenological analysis (IPA) of semi-structured interviews. Furthermore, the tendency within the sport performance literature has been to examine growth

using self-reports which may involve the identification of growth as the product of the internalisation of a cultural script that involves the identification of positive outcomes from adversity. In an attempt to counter this issue, to date only one study in the sport performance literature has explored the corroborative verification of growth. In a qualitative study, Wadey et al. (2013) found that coaches' responses provided coherence to athletes' reports of SRG following injury. The authors interviewed coaches as they were identified as typically having a high degree of involvement with the athletes in training and competition before, and following, a sport-related injury. However, the study was restricted to male coaches, experiences of injury, and spanned a number of levels of sport performance.

It is clear that there are a number of issues inherent in the growth research that must be acknowledged in any research study. This present study aims to explore whether coaches corroborate the growth experiences of elite level swimmers identified in previous research (see chapters three and four). Competitive swimming was considered to be an appropriate sport to investigate as the study described in chapter three found that Olympic champion swimmers suffer a myriad of adversities and that these adversities were associated with self-reported growth experiences. Given the time that coaches spend with swimmers, elite coaches are likely to develop an emotional attachment to their athletes which is important for successful performance and satisfaction in sport (Bucci, Bloom, Loughead, & Caron, 2012) and as such coaches are well placed to comment on their swimmers' growth-related experiences. In exploring this research question the study seeks to address the areas identified as causing confusion in the growth research and provide a transparent explanation as to the terminology used, and to use corroborative accounts to overcome the issues that may be associated with self-reporting.

Method

Design

A qualitative design was utilised to collect rich information to ascertain whether coaches corroborate the growth experiences of elite level swimmers identified in previous research (see chapters three and four), and if they do, then addressing what type of growth they observed. It was determined that a qualitative content analysis of semi-structured interviews, partly guided by pre-existing ideas and concepts, was appropriate given the descriptive nature of the research question (Schreier, 2012).

Participants

Following institutional ethical approval, purposive sampling, which is commonly used in qualitative content analysis (Elo et al., 2014), was used to identify participants who met the

criteria of having coached swimmers who had qualified for at least one international competition (e.g., Commonwealth Games, Olympic Games, European Championships, and/or World Championships). Twelve coaches (11 males and one female) agreed to be interviewed; one participant subsequently withdrew consent after the interview and was excluded from the analysis (Table 5). The ages of the final 11 participants ranged from 31 to 57 years ($M = 41.5$, $SD = 8.01$), they had a range of 12 – 38 years coaching experience ($M = 20$, $SD = 8.2$), and collectively had coached swimmers who the coaches reported had experienced embodied adversities (e.g., acute or chronic illness, acute or chronic injury, overtraining), externalised behaviours (e.g., disordered eating, suicide attempts, self-harm), psychological stressors (e.g., depression, body dissatisfaction, phobias, panic attacks, severe anxiety), external stressors (e.g., family bereavement, coach bereavement, family breakdown, low socio-economic status, the media, loss of funding, daily life hassles, friends or family with a serious illness), and performance-based stressors (e.g., failure to make Olympic, World, or Commonwealth teams, failure to medal, performance slumps). To facilitate anonymity the numbers 1–11 were used to identify each participant.

Data Collection

Six coaches were interviewed at the Commonwealth Trials over a period of one week, and five coaches were interviewed at Intensive Training Centres (ITCs) several weeks later. An interview guide comprising three sections was used (Jowett & Cockerill, 2003). The first part was designed to be informational (Morgan, Fletcher, & Sarkar, 2013), build rapport (DiCicco-Bloom & Crabtree, 2006), and was designed to access the coaches' experience and current coaching commitments. The second section addressed questions relating to the research question and focused on the adversities that the swimmers had experienced (e.g., "What impact, if any, did the adversity have upon their swimming training and performance?"), the behavioural responses and coping strategies used in the aftermath of the adversity (e.g., "What was the immediate impact of the adversity on the swimmer?"), the positive outcomes that may have been identified by the coaches (e.g., "Did you observe any positive changes in the swimmers who experienced these adversities?"), and finally, any changes in the coach-swimmer relationship as a consequence (e.g., "Were there any changes to the relationships that you had with the swimmers as a result of the adversities?"). The final part involved concluding comments and thanks.

The interviews, which were categorised as the unit of analysis (Graneheim & Lundman,

Table 5

Participant Demographic Details

<i>Participant</i>	<i>Gender</i>	<i>Age (years)</i>	<i>Coaching experience (years)</i>	<i>Elite coaching experience (years)</i>	<i>Selected Coaching Achievements</i>	<i>Selected Adversities of Swimmers</i>
1	Male	37	12	5	European Youth Olympics, GBR team	Failure to make Olympic and World Championship teams
2	Male	36	12	12	Commonwealth Games, World University Games	Performance issues, injuries, family bereavement, self-harm, disordered eating, anxiety, family breakdown
3	Male	57	38	25	Olympic (gold, silver and bronze), World Championships medallists	Illness, disordered eating, performance slumps
4	Female	31	12	5	Olympics, World Championships	Injury (chronic), failure of Olympic swimmer to make World Championships
5	Male	50	30	10	Commonwealth Champion, World Championships, Olympic finalists	Injuries, illness, asthma, phobia, media intrusion, panic attacks, depression, family bereavement, suicidal ideation, disordered eating, coach bereavement
6	Male	41	18	18	World Championships, Olympics, medallist at World University Games,	Injuries, family bereavement, depression, change in life circumstances, performance issues, missing out on Olympic selection
7	Male	48	23	13	World, Olympic, and Commonwealth Champions	Loss of funding, injuries, coach illness
8	Male	44	24	13	Worlds, Olympics (silver and bronze), Commonwealth Games	Socio-economic status, performance issues, illness, injuries, loss of funding
9	Male	34	16	10	World Championships, Olympics (silver),	Injuries, performance slumps, lifestyle change
10	Male	34	18	18	Olympics, World Championships, Commonwealth Games, Europeans (gold), Paralympics (gold)	Lifestyle changes, injuries, disordered eating, family dysfunction
11	Male	44	17	12	Olympics, Paralympics (gold), World Championships, World University Games, World Records	Injuries, illness, bereavement, self-harm, eating disorder (anorexia), termination of academic course

2004) ranged in duration from 21 to 56 mins ($M = 41$, $SD = 9.5$), were recorded using audio equipment, transcribed verbatim, and yielded 198 pages of 1.5 spaced text. Both deductive and inductive qualitative content analyses were utilised to provide “a highly flexible method” (Schreier, 2012, p. 7) that ensured reliability and validity. A background literature review of the general psychology literature and research into coaches’ perceptions of SRG in athletes experiencing injury (Wadey et al., 2013) and Olympic swimmers’ experiences of adversarial growth (chapters three and four) informed the interview schedule and provided the deductive basis of a coding frame. Inductive categories were derived from the analysis of the interviews (Forman & Damschroder, 2008).

Data Analysis

The analysis followed a three-step process involving immersion, reduction, and interpretation (Coffey & Atkinson, 1996) and commenced on return from the Commonwealth Trials; further interviews with coaches at ITCs were carried out until it was deemed that saturation had occurred. Immersion involved developing a sense of the whole; during the transcription process I immersed myself in the recordings and subsequent re-reading of the transcript (Forman & Damschroder, 2008). Reduction involved reducing the raw data to manageable proportions, breaking the data down into themes, and reorganising the data into categories that addressed the research question. Initial coding comprised a two-step analysis to identify relevant and irrelevant material. In accordance with recommendations from Schreier (2012) only the second part of the interview was coded, the first part which accessed information about experience and involved building rapport was used to provide demographic information, and the final part was used to express gratitude for participation. The interviewer’s questions were also excluded from the coding process (Schreier, 2012). Where there was doubt the information was coded as relevant. In respect of the material identified as relevant, the main coding was both deductive and inductive with mutually exclusive codes (Forman & Damschroder, 2008). Mutual exclusiveness was achieved by ensuring that a unit of coding was only assigned to one sub-category per dimension. A codebook was developed based on recommendations from Forman and Damschroder who advised that codebooks are useful particularly in the early stages of the analysis to organise codes and ensure that they are used reliably. An example from the codebook including code, node type, deductive or inductive code, and description is detailed in Table 6. Each case was explored individually and then compared and contrasted across cases. In the final stage, interpretation, descriptive and interpretative summaries of the data were presented the findings in the form of continuous text (Schreier, 2012). This involved an interpretation of the underlying meaning of the coaches’

Table 6

Extract from Codebook – the Restitution Narrative as a Child Node

<i>Code</i>		<i>Node Type</i> <i>(Parent/Child)</i>	<i>Code Type</i> <i>(Inductive/Deductive)</i>	<i>Description</i>	<i>Examples from transcripts</i> <i>(Coach/line/quote)</i>	<i>Freq</i> <i>of</i> <i>code</i> <i>in data</i>
Narratives (NARR) (Parent node)	Restitution Narrative (RESTNARR)	Child	Inductive	This code applies if: <ol style="list-style-type: none"> 1. The coach identified that a swimmer reflected on their experiences as “I am ill today, will be better tomorrow”. 2. The adversity is in the sport context as “I didn’t swim well today, but I will tomorrow”. 3. The coach and swimmer (or other support staff) collaboratively produce this narrative. 	<p>Coach 2 – line 202 “get a plan together to make the athlete feel confident that it wasn’t the end of the world, that he would recover”.</p> <p>Coach 6 – lines 57–63 “They are still thinking I have got tomorrow. I have not really experienced anyone running and going, oh my god that’s me done. They thought, okay everything went bad but I have still got tomorrow but that may not go so well either but the immediate impact is to carry on”.</p> <p>Coach 5 – lines 84–85 “it was all really good, the experts have told me that it is repairable and I will be back at elite levels again”.</p>	3

interpretations, i.e., the latent content, and the obvious, visible expressions of what they said, i.e., the manifest content (Graneheim & Lundman, 2004).

Trustworthiness

The essence of trustworthiness in qualitative content analysis is that the process is described accurately, that the data is rich, appropriate and well-saturated (Elo et al., 2014), and is addressed by the concepts of credibility and transferability. Elo et al. argued that trustworthiness should be considered in the three stages of the process (preparation, organisation, reporting). They suggested that in the preparation phase (i.e., the development of the interview guide and the selection of an appropriate sample) that trustworthiness should be verified with particular attention being paid to sampling and the selection of participants who have “best knowledge” (Elo et al., 2014, p. 4) about the topic area. This maps to the concept of credibility (Graneheim & Lundman, 2004). The selection of national level coaches who had coached swimmers who had qualified for at least one international competition ensured that the participants were those who had knowledge of swimming at an elite level and had access to knowledge about the adversities that swimmers may have experienced. Elo et al. further recommended that the demographic details of the participants are described accurately and in depth, accordingly, the collection of the demographic material in the first phase of the interview was important in providing this detailed information. In the organisation phase (i.e., data analysis) an explanation of how the concepts are created are important in assessing the trustworthiness of the study, an extract from the codebook has been included to ensure transparency. Finally, in the reporting stage (the writing up of the study), the use of quotations should be used to illuminate the concepts and where possible these quotations were representative of the sample, however, Elo et al. (2014) warned of the overuse of quotations in a way that may weaken the analysis. Although an aspect of trustworthiness involves transferability, which refers to “the extent to which the findings can be transferred to other settings or groups” (Polit & Hungler, 1999, p. 717), it can only be suggested that the results from this study may be transferable to other elite sports and it is beyond the scope of this study to argue that the findings are transferable to other performance domains.

Results

The coaches identified that many of the elite swimmers that they had coached had experienced significant adversities. These adversities were eventually disclosed, either with the swimmer confiding in teammates, disclosing to the support team, the coach identifying inconsistencies in training, the observation of a change in outward behaviour, or based on the coach’s prior experience. In the context of these experiences, a content analysis of the data

yielded a high complexity coding frame comprising two dimensions and multiple levels (Schreier, 2012) that addressed adversarial growth. The dimensions were the *Responses to Adversity* and *Positive Outcomes*.

Responses to Adversity

The responses to the adversities that the coaches identified yielded 25 distinct lower order themes relating to the adversities which were abstracted into six higher-order themes. These six higher order themes formed three dimensions of response: behavioural strategies, emotional responses, and cognitive responses (see Table 7).

Behavioural strategies. The coaches reported that they observed certain behaviours in swimmers who had experienced an adversity. These behaviours were categorised as comprising avoidance strategies and approach strategies. There was a temporal aspect to this theme with avoidance strategies being the most prevalent in the initial stages following the adversity, and approach behaviours tending to occur after a longer period of time.

Avoidance strategies comprised a lack of disclosure, instances of the swimmers turning to alcohol, self-imposed isolation, and swimming behaviours. Where it was possible, in the first instance, the swimmers tended to hide their adversities (e.g., disordered eating) from their coaches and social networks: “it was hidden for a long time but it came out towards the end of her career” (Coach 11). When the adversities were detectable (e.g., family bereavement), the coaches were able to identify maladaptive and emotion-focused coping strategies that the swimmers used to avoid confronting the issue: “She did find herself psychologically having issues, like sitting at home and staring into space and doing nothing . . . she wasn’t diagnosed with depression but . . . she turned to alcohol quite a lot” (Coach 6). The coaches identified an avoidance strategy that involved engagement in swimming as an outlet for the swimmers, either to forget their problems, or to maintain stability in one aspect of their lives (i.e., their sport). Although this emotion-focused coping strategy was inherently maladaptive as it did not address the underlying adversity, the strategy was perceived by the coaches as being generally positive. They rationalised that it provided the swimmers with a positive goal-oriented approach to maintain stability in their lives: “It was her . . . escape from the problem. . . . Swimming was . . . a coping mechanism . . . with swimmers it is what they do, it is their life you know. They can’t envisage not doing it . . . they want to be involved” (Coach 6).

Other swimmers adopted approach strategies of identifying seeking social support, engaging in rehabilitative processes, formulating plans, or adopting changes in training practices. When the adversities were disclosed it was accompanied by a realisation from the swimmers that they needed the support of others. The coaches recognised that this

acknowledgement sometimes came from the swimmers, yet at other times it came from the coaches themselves, or alternatively, was identified collaboratively between the coach and swimmer. The support came in two forms, professional and social. Professional support came from the coach, qualified counsellors, strength and conditioning coaches, nutritionists, and psychologists. The coaches tended to perceive not only that they were competent to support the swimmers but felt that it was their responsibility to do so: “I think it is very important that you are able to have a little bit of experience, training to deal with that” (Coach 2), however, they were aware that the scope of their knowledge in dealing with the adversities often required external assistance. Disordered eating, self-harm, depression, and suicidal ideation were perceived to be beyond their competencies and they sought assistance from other professionals: “I think eventually we got to the point where we had to consult the counsellors . . . because we deal with many aspects of the swimmers lives but that was out of our comfort zone and skill base” (Coach 11). Additional, but qualitatively different assistance came from the swimmers’ social networks: “often the social bond with the teammates is very strong, not always with the coach, almost always with the teammates” (Coach 6). An interesting aspect of dissonance in the contextualisation of adversity came in the descriptions of dealing with injury. Whilst injuries were common adversities that the coaches discussed, the common response that they recognised was an engagement in avoidance behaviours, however, others demonstrated positive approach behaviours to confront their adversities:

He broke the bone, he had been to the doc, and then he had gone out and got loads of different vitamins and . . . things that he knew that he needed . . . so he has already kind of started the recovery process in a way before we even sat down (Coach 11).

Emotional responses. The swimmers experienced emotional responses to their adversities that were detectable by the coaches. These comprised anger, the need for revenge, feelings of fatigue, distress, frustration, and resignation. Anger was a common response particularly when the adversity involved swimming-related adversities such as non-selection for the Olympic team. Describing the non-selection of a swimmer for the 2012 Olympic team, one coach explained:

There were tears . . . when she came second instead of first and it was by 1/10th of a second, and then at the June trials when she didn’t hit the time . . . there was an initial emotional reaction. But that was how it was manifested, upset and then that quickly turned into, maybe anger is a strong word, but a feeling of you know, they are out to get me, this isn’t right, from both of us. I was angry (Coach 1).

Table 7

Responses to Adversity

<i>Lower-Order Theme</i>	<i>Higher-Order Theme</i>	<i>General Dimension</i>
Lack of disclosure	Avoidance strategies	
Alcohol		
Isolation		
Determination to swim		
Swim to forget		
Strength and conditioning coach assistance	Approach strategies	Behavioural strategies
Nutritional advice		
Seeking support from psychologists, coach and nutritionist		
Seeking support from teammates, friends and family		
Identifying rehabilitative processes and formulating plans		
Change in training practices	Negative emotions	Emotional responses
Use of humour		
Anger		
Need for revenge		
Fatigue		
Distress	Denial	
Frustration		
Resignation	Cognitive illusions	Cognitive responses
Denial		
Focus on the positives		
Restitution narrative	Ruminations and search for meaning	
Questioning of priorities		
Overthinking		
Apportioning blame		
Feelings of unfairness		

Frustration, as the swimmers' goals were thwarted, was a particularly frequent emotion that accompanied their adversities. This was particularly evident in accounts of injury which prevented the swimmers from achieving their performance goals and led to feelings of helplessness and isolation: “[*he experienced*] frustration in terms of not being able to train the same as everyone else or do as much as everybody else, that was quite isolating for him” (Coach 4). When injury resulted or illness resulted in non-qualification or non-selection for an Olympic or World Championship team, the coaches' own frustrations were also evident given that the goals were shared: “She was out of the water for three months . . . she was devastated. It is all about the Olympics, that is all we had worked for” (Coach 9).

However, adversity and the resultant distress was sometimes a catalyst for change in approach. One coach explained how a series of cumulative adversities had a positive outcome for one of his Olympic swimmers. The swimmer had dislocated her knee on multiple occasions and had subsequently gained a significant amount of weight. This resulted in a performance slump that was described as the swimmer hitting “rock bottom”:

She was just crying – we had this conversation. I was like, ‘I don’t want you to get back in, go home and start tomorrow’ and . . . the next morning she came back and was a different girl. It was just ‘this is it, I’m doing it or I’m not’ (Coach 10).

Cognitive responses. Although they were not as easily identifiable as the emotional and behavioural responses, the coaches interpreted certain behaviours and the content of conversations as being indicators of specific cognitive responses to adversity. These cognitive responses involved denial, cognitive illusions, and ruminations in order to seek meaning in the adversity. Denial was a common cognitive response to all types of adversity:

She wasn’t mentally capable of dealing with that kind of pressure . . . she just tried to mask it, she just told everybody that she was fine. . . . [It was] complete denial, complete head in the sand, deny it, pretend that it hasn’t happened . . . if you admit that there is a problem then you never know where that is going to lead, she tried to stay in control by blocking it all out (Coach 9).

Through reflection the coaches were able to identify that there were times, especially in the case of bereavement, when the swimmers appeared to handle their adversities too well: “She seemed to be handling it very well. . . . She didn’t feel the need to deal with it anymore . . . we all felt that she hadn’t really got over it, it was denial at that point” (Coach 6). This form of denial tended not to generate any proactive response from coaches who perceived the continuation of training in a supportive and familiar environment as being adaptive. They perceived that in adopting this type of avoidance behaviour the swimmers were still focused on

their performance goals which were congruent with those held by the coaches, and furthermore that the swimmers were in control of their own behavioural responses.

To deal with the impact of their adversities, especially injury, the swimmers employed cognitive illusions to create positive outcomes. These illusions involved focusing on the positives and accepting a restitution narrative (Frank, 1995) whereby sufferers envisage future triumph over their condition and a subsequent return to normalcy. Acceptance and promulgation of this restitution narrative forestalled acceptance of the identity and behavioural changes that may occur as a result of the adversity. On occasions this restitution narrative was collaboratively produced in conjunction with others: “I am not sure that she actually believed that, but she portrayed it to everybody else, ‘it was all really good, the experts have told me that it is repairable and I will be back at elite levels again’” (Coach 5).

The coaches perceived that the swimmers engaged in ruminative activities and a search for meaning in their adversities. These activities were evidenced by the coaches who identified a questioning of priorities, overthinking, apportioning blame, and beliefs of unfairness in the swimmers. Blaming family and coaches was a common response when referring to eating disorders, particularly *anorexia athletica*:

She did say that she blamed me for it and then realised that it was just nonsense, it was her. . . . And she lived with that and that kind of source of unhappiness, a source of blame, a source of self-pity which . . . is a common trait in addiction (Coach 7).

Positive Outcomes

In respect of the coaches’ perceptions of positive outcomes there were 44 distinct lower order themes which were abstracted into 12 higher-order themes (see Table 8). These 12 higher order themes formed four dimensions of growth: perceived benefits, functional growth, no information, and no positive outcomes.

Perceived benefits. The coaches identified a number of positive outcomes from the adversities that were characteristic of coping strategies and the internalisation of a cultural script that posits that positives are an expected and normal outcome of negative events. These positive outcomes were devoid of evidence of fundamental change that is characteristic of functional growth and did not appear to involve any changes to identity, beliefs, or values. Rather the trauma-related information appeared to have been assimilated into current schema. Consequently, the outcomes were characterised as illusory growth, positive physical outcomes, superior performance, resilience, and a change in approach. Illusory growth (cf. Maercker & Zoellner, 2004, Zoellner & Maercker, 2006a) was represented by positive illusions, a positive or optimistic attitude, and a growth mind-set. The adoption of positive illusions was common

in the coaches' descriptions as the swimmers' identities were highly invested in their performances. When adversities, especially injury, threatened those identities, they failed to acknowledge the likely outcomes and adopted unrealistic expectations of full recovery: "She was still, still very very positive so she tried to put a positive spin on it, everything in the garden was wonderful and she was going to be as successful as she always was" (Coach 5). The positive illusions were often produced in collaboration with coaches who encouraged identification of the positives in adversity. However, by failing to address the issues the swimmers were left vulnerable to further threats to their self-esteem and were unable to move beyond the adversity:

I realised that, that we never really resolved this . . . I did what I thought was right at the time which was to use it as a fuel to enhance . . . 'you have had this setback and you need to harness how that made you feel. And turn that into a positive feeling this year, you don't want to feel like that again. How can we make sure that that doesn't happen?' And that was kind of my approach to it but we never really scratched beneath the surface to find out how she felt (Coach 1).

Failure to fully address the shattering of the swimmers' expectations and beliefs had negative consequences: "she . . . massively underperformed . . . I think now with hindsight that was the start of it – losing that confidence" (Coach 1). A background in sport science informed some of the coaches' responses to adversity and their subsequent encouragement of adopting a more positive outlook on life. This was evidenced by the coaches who perceived the swimmers to have a growth, as opposed to fixed, mind-set (cf. Dweck, 2006) which allowed them to see challenges as opportunities rather than as threats:

I did quite a lot of work on mind-set . . . from the work of Carol Dweck . . . when things aren't going well . . . this is a challenge that you can overcome, this is a setback – what can you learn from it for next time? (Coach 6).

Despite many of the adversities being embodied, e.g., injury, most of the coaches were able to identify positive physical outcomes. These comprised the swimmers becoming physically stronger, being a better kicker, looking better, weighing less, and presenting a reduction in skin fold measurements. The consequences of some adversities, such as injury, meant that the swimmers had to engage in different training practices with a different emphasis which facilitated "turning a weakness into a strength" (Coach 5). A common outcome for swimmers with shoulder injuries was a shift in training focus to leg work and consequently, an improvement in leg strength and the development of a better kick technique:

We talked about using the power in the last 15[metres] on the legs, and . . . I said 'we

can using the cycling, the kicking and . . . you are only going to be stronger'. And I think that helped him in a way when his kick times came down (Coach 12).

Although swimming is a speed-oriented sport, coaches also identified aesthetic changes as constituting positive outcomes of adversities. This was particularly apparent when addressing the outcomes of those who had struggled with *bulimia nervosa*. The coaches were aware of the swimmers' aesthetics, their weight, and their skinfold measurements: "She looks great – she is lighter than she was . . . she looks amazing" (Coach 7). However, aesthetic changes were also identified in those swimmers who had suffered from long-term illnesses; these changes were perceived by the coaches to be positive, the following quote was given in the context of identifying positive outcomes: "Her weight has dropped, her body fat, her skinfolds have dropped, she never really was heavy. But now she is extremely light" (Coach 3).

Superior performance had two components. Firstly, it comprised an improvement in attitude to swimming where the experience of adversity motivated the swimmers, encouraged them to re-evaluate their goals, allowed them to refocus through rest, and to plan for the future. Secondly, it was also measured in terms of the swimmers being faster and attaining a higher world ranking. The experiences of adversity often led the swimmers to have time away from swimming and this was reframed by both the coaches and the swimmers as being an inherently positive opportunity to recover and potentially improve:

I think it worked out as a positive because he swam even better this year having had the rest and refocus and stuff. Sometimes these things can turn out to work in your favour . . . he eventually saw the benefits in that; eventually we used it as an opportunity to focus on technique and things. . . . The athlete has come out better for it . . . and is swimming faster than he has ever done (Coach 2).

The impact of the adversity was often perceived as a motivator to train harder and more effectively; this was evident in coaches' accounts of illness, injury, and loss of funding. In discussing one swimmer who suffered from recurrent illnesses that impacted on her international representation, one coach reported on her renewed motivation to train hard and the impact that it had on her performance and world ranking:

It definitely made her . . . a much better swimmer . . . after she came back after being sick. She was good before, but nowhere near this level. She is much faster . . . her world ranking is higher than she was before. It made her the swimmer that she is today (Coach 3).

Table 8

Positive Outcomes

<i>Lower–Order Theme</i>	<i>Higher–Order Theme</i>	<i>General Dimension</i>
Positive illusions	Illusory growth	
Positive or optimistic attitude		
Wishful thinking		
Enhancing self esteem		
Growth mind–set		
Stronger	Positive physical outcomes	Perceived Benefits
Better kicker		
Looks better – aesthetics		
Weighing less		
Reduction in skin fold measurements		
Re–evaluate goals		
Refocus through rest		
Planning for future (performance based)		
Motivated		
Faster		
Higher world ranking	Resilience	
Confidence		
Robustness		
Versatility		
Coping better with setbacks		
Life experience		

<i>Lower-Order Theme</i>	<i>Higher-Order Theme</i>	<i>General Dimension</i>
Understanding	Functional sense making	Functional Growth
Clarification of priorities		
Change in outlook		
More balanced approach to life	Functional change in life philosophy	
Maturity		
Independence		
Spirituality		
Opening of opportunities	Functional positive re-appraisal	
Happiness		
Enjoyment		
Went into counselling	Action growth	
Transferred to personal life		
Set up international swimming schools		
Quality of training	No adversity	No Positive Outcomes
Self-handicapping		
Recency of the adversity	Temporal	
Not yet faced adversity		
Can't handle the pressure	Lack of mental toughness	
Struggling		
Low in confidence		
Left swimming	No contact	No Information
Little interaction outside swimming		
No opinion	No opinion	

A number of coaches identified that the adversities had a positive impact on the swimmers' ability to handle future setbacks and their propensity to bounce back from negative experiences. This resilience was expressed in terms of confidence, robustness, versatility, coping better with setbacks, and life experience: "I think the setbacks help them deal with other setbacks. . . . I think some adversity does somehow make them better able to deal with the knocks and the pressure" (Coach 5). This resilience was not confined to the performance domain as it was evident that the coaches perceived the ability "to bounce back . . . and thrive" (Coach 8) in swimming as being transferable to other domains: "She learnt so much through that whole process that it made her a much stronger person that she was more able to deal with ups and downs in her swimming career and in her personal life as well" (Coach 5).

Functional growth. In addition to the perceived benefits that were identifiable from the experience of adversity, there were other positive outcomes that were indicative of shattering of beliefs and a restructuring through accommodation processes of the swimmers' schemas. These outcomes were represented by attempts at sense-making, a change in life philosophy, positive reappraisal, and action growth. With the exception of action growth these are consistent with the characteristics of functional growth (Calhoun, Cann, & Tedeschi, 2010; Calhoun & Tedeschi, 1998; Tedeschi & Calhoun, 1995, 2004) and are manifested in a number of the experiences recounted by the coaches.

The coaches identified that some swimmers engaged in activities that helped them to make sense of the adversities through understanding not only why the adversity had occurred but also its significance on their lives and what it meant for their priorities. In describing the aftermath of the death of a swimmer's former coach who was also close to the coach interviewed, the coach identified the need for both of them to engage in a collaborative meaning-making. This went beyond the comprehensibility of the adversity and addressed the significance of the adversity in the swimmer's life.

We were (sic) working towards the same goal. . . . I could relate stories to him about her which he had shared apart from a different viewpoint . . . we talk about her all of the time so all the stuff that she would say and do sometimes. I think that that has helped (Coach 5).

The coaches perceived that the adversities inspired the swimmers to re-evaluate the importance of certain aspects of their lives. A change of life philosophy was evident in a change of outlook, a more balanced approach to life, increased maturity, increased independence, the opening of opportunities, and spirituality. The majority of coaches recognised that when the adversities were related to performance issues that it was important that the swimmers were

able to prioritise the other important aspects of life: “I just had a swimmer contact me after over 20 years and she said ‘you gave me the best advice that I have ever got – swimming or no swimming life goes on’. And she went on . . . and did some great things” (Coach 3). The importance of other aspects of the swimmers’ lives was manifested in a change in outlook that was often represented by the rejection of the dominant performance narrative (Douglas & Carless, 2006) that exists in elite level sport. This rejection of the performance narrative as a result of the adversity was noted by most of the coaches:

I think that that athlete then sees swimming as just a sport; they see life for what it is . . . Sport is not – it is life or death to them – but if you have had that tragedy then you see it for what it is . . . it is part of their journey. . . . They see it for what it is, it is just sport (Coach 2).

Given the relatively young age of swimmers performing at elite level, many of the coaches acknowledged the immaturity of many of their swimmers. However, the coaches observed that when the swimmers experienced adversity often for the first time in their lives, that the negotiation of adversity acted as a facilitator of emotional and social development.

[She went from] being this arrogant little spoilt girl . . . to now being this lovely young lady... [who] knows how to manage everything. . . . She is a 30 year old in a 21 year old’s body, which has been tough for her, but she’s had to grow up massively quick[ly] and develop a lot (Coach 10).

Although the initial emotional, cognitive, and behavioural responses to the adversities involved threats to the swimmers’ identities and the perceived thwarting of their goals, the adversities were, in the longer term, perceived to have opened up new possibilities both within and outwith the performance domain. It is interesting that even embodied adversities, such as injury, often resulted in improved performance due to the opportunity to rest and refocus: “I think it was the rest in the head that opened everything up to the possibilities of doing something great. Which he did” (Coach 2). The positive appraisal of the swimmers’ experiences led to the coaches identifying greater emotional stability in the swimmers and the outward indicators of positive emotions: “And you can see in her that she is much more balanced and happy and she’s happy” (Coach 7). The terminology used by a number of the coaches alluded to a spiritual element in the swimmers’ growth. In discussing a swimmer who had experienced a multitude of adversities including bereavement, the coach described her move overseas as: “very much like, like a rebirth” (Coach 5).

There was some evidence of the swimmers demonstrating action growth (Hobfoll et al., 2007) represented by the one swimmer becoming a counsellor, others transferring the positives

to their personal lives, and others giving something back to the sport of swimming in the form of setting up of an international swimming schools for children in developing countries. One coach in particular was able to identify this in multiple swimmers whom he had coached. He referred to the experiences of two Olympians who had experienced multiple and cumulative adversities and have now retired: In one case he explained:

She is doing work in a centre for helping people, it is a crisis line, she does counselling. So for her I think that here was a massive thing, she realised that by helping, [*having had*] people helping her to understand why things happened, she could also have a positive impact on other people (Coach 5).

No positive outcomes. The identification of positive outcomes was not always evident in the elite level swimmers due to an absence of adversity, temporal aspects, and the coaches' view that certain swimmers lacked mental toughness. Despite all of the coaches being able to identify some positive outcomes in the majority of their swimmers who had experienced adversity, one coach commented that he felt that at the highest level swimmers did not experience adversity. He stated that “the best swimmer that I ever coached – I don't think that she really had any adversity but she still achieved”. When asked about any injuries that his world-class swimmers may have experienced, he also refuted having had any experience of this and attributed it to his own training programs:

They did very little dryland and they had almost no injuries. And other than [name] they didn't get sick. I mean I could go back to my best swimmer ever. In almost 3 ½ years I don't think that she ever missed a workout because she was sick. Ever, in 3 ½ years (Coach 3).

Several coaches recognised that they had coached swimmers who were prone to self-handicapping and exaggerating the impact of their experiences. This behaviour was considered an impediment to the identification of any positive outcomes. As a consequence, when coaches attributed self-handicapping motivations to the adversity there was an absence of positive outcomes that were perceived to have emerged from the experience.

Every physio he saw said he didn't need an operation and that he would be able to swim through it and it wouldn't be a problem. And in the end he just didn't take anybody's advice and went and had an operation and missed the Olympics. . . . I think he didn't want to swim at the Olympics (Coach 7).

When asked whether there were any positives that the individual concerned took from the experience of injury and subsequent operation, the coach's response was a resounding “No”.

Other coaches discussed very recent adversities and were able to identify that the

swimmers were still experiencing the negative emotions associated with the trauma. They astutely identified that it was too early to identify if there were going to be any positives that the individual would be able to take from the experience: “It’s . . . too early to tell the impact on him, he is still very low in confidence. . . . I am sure it will make him stronger . . . but at the moment . . . it is still quite difficult for him” (Coach 4). Other coaches focused on those swimmers who had not acknowledged and accepted the full extent of their adversities. Growth was perceived as unlikely until the swimmers addressed the underlying issues:

I don’t think that she has got through them [*the performance slumps*]. I think that’s a real big problem for her. In 2011 she . . . went to World Championships as first or second in the world, qualified first, through semi-finals in Lane 4, and then went slower and got seventh place. . . . I don’t know that anyone can change that other than her. So, unless something changes, I don’t see that changing for her (Coach 3).

No information. Despite the close relationship between coaches and swimmers there were a number of occasions when the coaches were not able to comment on whether any positives had resulted from adversity-related experiences. The coaches were devoid of information either, because they had lost contact with the swimmers or, because they had little contact with the swimmers outside the training environment and were unable to comment. On three occasions the individuals had retired from competitive swimming and the coaches lost contact:

We asked the athlete to go to the counsellors and by this time we had also been given advice to ask her to stop swimming. . . . We tried to monitor but the biggest thing is that it was confidential from there on.

Interviewer: Do you know what happened to her?

No I don’t. . . . I am not sure what, where she is at now, no (Coach 11).

Discussion

This present study aimed to explore whether coaches corroborate the growth experiences of elite level swimmers. Further it sought to address the areas identified as causing confusion in the growth research through providing a transparent explanation as to the terminology used, and using corroborative accounts to overcome the issues that may be associated with self-reporting. The coaches identified that the majority of swimmers experienced positive outcomes as a result of their adversities which partially corroborated the growth experiences identified in the study in chapter three which explored the experiences of Olympic champion swimmers. These positive outcomes were identifiable as comprising of *perceived benefits* and *functional growth* which is more reminiscent of the types of growth (i.e.,

illusory and constructive growth) identified in the second study of Olympic swimmers (chapter four). However, there were some notable exceptions which involved the coaches, despite their high levels of contact with swimmers, having limited access to information about the swimmers. Additionally, there were several cases where swimmers engaged in self-handicapping or exaggeration of adversities where there was little or no evidence of any positive outcomes. These latter points are important, not only do they provide insight into the coach-athlete relationship, but, more importantly for better understanding growth in elite sport, they illustrate that there are potentially occasions when elite swimmers conform to, or internalise, a cultural script but positive outcomes are not observable to others suggesting a paucity of transformational change.

In addressing the two areas of confusion in the growth nomenclature, the present study has provided clarification of these potential issues for future researchers. Firstly, in respect of the terminology of growth, this study clearly distinguished between those positive outcomes that are representative of functional growth and those that are representative of perceived benefits and therefore it is important that researchers distinguish between these two related concepts. This addresses Wadey et al.'s (2013) concerns that scholars need to "conceptually clarify the terms used interchangeably in the literature to describe the positive changes some individuals experience following a potentially stressful or traumatic event" (p. 133). The present study identified occasions when the coaches were able to identify growth that was characteristic of motivated illusions and other occasions when it was characteristic of fundamental change. This finding provides support for Zoellner and Maercker's (2006a) Janus-face model of PTG and some support for Hobfoll et al.'s (2007) premise of action growth, although in this present study action growth was subsumed by functional growth and illusory growth was subsumed by perceived benefits. Secondly, the study addressed the issues surrounding the identification of growth and provided evidence of actual as opposed to perceived reports of growth. Siegel and Schrimshaw (2000) posited that self-reports of PTG should be validated by significant others otherwise accounts of growth maybe the result of attempts to 'find a silver lining' (p. 1551). Whilst Wadey et al. (2013) used coaches' perceptions to validate accounts of growth as a result of injury, most sport performance studies (e.g., Galli & Reel, 2012a, 2012b; Sarkar, Fletcher, & Brown, 2015; Tamminen, et al., 2013; Wadey et al., 2011) have explored perceptions of growth from the perspective of the individual.

In addressing the aforementioned areas, it was evident that adversarial growth involved positive outcomes that were corroborated and therefore did not rely on self-reporting, and that growth comprised functional (cf. Calhoun et al., 2010; Calhoun & Tedeschi, 1998; Tedeschi &

Calhoun, 1995, 2004) and action growth (cf. Hobfoll et al., 2007). The findings indicated that the coaches' corroborated fundamental changes across domains which is consistent with Tedeschi and Calhoun's (2004) assertion that growth following adversity comprises psychological changes across different domains that surpass original functioning. However, the identification of action growth provides support for its inclusion as an additional domain in the conceptualisation of growth. Perceived benefits (cf. Affleck et al., 1987) referred to a more inclusive and wide-ranging conceptual taxonomy of growth and comprised positive outcomes that are not consistent with the functional (or action growth), but namely, illusory growth, resilience, physical growth, superior performance, and a change in approach. Illusory growth was evidenced when coaches encouraged the adherence to a cultural script or put social pressure on the swimmers to report positive outcomes indicative of a "tyranny of positive thinking" (Lechner & Antoni, 2004, p. 39). It is interesting that the coaches identified the development of resilience as a protective factor against future adversities when addressing the positive aspects of adversity. This is a significant observation as it is apparent that those swimmers who develop resilience as a consequence of adversity may not experience functional growth as they are inoculated (Meichenbaum, 2003) against the impact of exposure to further adversity. Ironically, exposure to further stressors or adversity may bring about schematic changes that are integral to functional growth in those individuals who are less resilient.

The coaches' perceptions of the swimmers' experiences were influenced by their own experiences of adversity, their coaching philosophies, and the value that they placed on certain behaviours. This is consistent with Park et al.'s (1996) assertion that the role inhabited by a verifying individual may impact of what dimensions of growth may be recognised and therefore it must be acknowledged that swimmers' parents may have identified different dimensions of growth. This may explain the ubiquitous identification of certain aspects of growth by the coaches in the present study, particularly superior performance, the role of the swimming in negotiating an adversity, and the identification of positive physical outcomes. In respect of this latter point, the identification of positive physical outcomes was not surprising and is consistent with previous research (e.g., Wadey et al., 2013), however, it is interesting that the coaches identified aesthetics as a positive outcome. Specifically, the coaches identified the development of a light and lean body as positive and consequently, are reinforcing their own beliefs and promulgating the stereotype about the 'the ideal physique' for swimmers and the 'slim to win' ideology (cf. McMahon, Penney, & Dinan-Thompson, 2012) in their narratives.

A limiting aspect of the findings is the restricted inclusion of elite female coaches in this study. Despite attempts to access elite female coaches, of which there are only five in the

United Kingdom, only one was willing and able to take part. This issue should be remedied in future studies as Wadey et al. (2013) noted “that females have been found to report more growth than males” (p. 133). The present study’s use of corroborating sources provide coherence to swimmers’ accounts of growth reported in chapters three and four, however, it became evident during the analysis that to extricate the coach from the adversity- and growth-related experiences of the swimmers was impossible, especially given the intricacies involved in the complex two-person coach-athlete relationship (Jowett & Cockerill, 2003). In some instances the coaches shared the adversity with the swimmer (e.g., performance slumps, bereavement), and in others they facilitated continued adherence to certain practices that impacted on the how the swimmers’ experiences were negotiated (e.g., the positive aspects of rest and recuperation). Given the emotional aspect of the coach–athlete relationship it is possible that the swimmers’ adversities may also be directly or indirectly stressful for the coach and they may be experiencing a shared experience of growth (cf. Weiss, 2002). These vicarious experiences provide an opportunity for future research.

The findings have implications for practitioners working in the competitive swimming environment who should be cognisant of the dominance of avoidance strategies in the initial stages following adversity. Practitioners should be aware that swimmers may initially engage in a process of denial and attempt to protect their identities and self–esteem by engaging with maladaptive and avoidant coping strategies. Understanding this initial process will better prepare coaches to facilitate functional growth in a professional, supportive environment. An awareness that disclosure of an adversity may only follow a lengthy period of denial is important so that coaches are in a position to facilitate the provision of support sometime after the adversity has occurred. Furthermore, coaches should be cognisant of the differences between those outcomes that are representative of perceived benefits and those that are representative of functional growth. It is important that coaches recognise whether the swimmers are adhering to a cultural script creating motivated illusions, or alternatively making actual changes at cognitive, emotional, and behavioural levels, as this can have consequences on the levels of support provided. The high proportion of contact time that coaches have with elite athletes means that they are well positioned to notice and appraise fundamental aspects of this growth process. A key aspect of this appraisal should involve the observation of discrete positive changes rather than a reliance on reports of positive change revealed through dialogue with their athletes.

In conclusion, this study provides corroborative accounts of adversarial growth in elite swimmers which a clear differential between functional growth and perceived benefits. The

findings have theoretical implications for researchers and practitioners who should be aware of the qualitative differences between functional growth and perceived benefits. Coaches should also be aware of the collaborative nature of identifying positive outcomes from adversities and be cognisant that they may become active agents in replicating a cultural script that encourages the identification of perceived benefits rather than facilitating a more fundamental transformation in the form of functional growth.

CHAPTER VI

A META-SYNTHESIS OF ADVERSARIAL GROWTH IN ELITE ATHLETES

Introduction

Psychological growth following experiences of adversity has been extensively explored in the trauma (e.g., Polatinsky & Esprey, 2000), oncology (e.g., Sumalla, Ochoa, & Blanco, 2009), and general psychology (e.g., Park, 2009) literature. It is now widely accepted by the academic community that there are definite positives that emerge in the aftermath of experiencing an adverse event, and that these positives are regularly reported by individuals who have experienced adversity (see, for a review, Cho & Park, 2013). Interestingly, despite agreement about its existence, there is no consensus about the appropriate terminology that should be used to refer to the presence of these positives, and as Joseph, Murphy, and Regel (2012) claimed “there is no gold standard definition of . . . growth” (p. 318). To elucidate, a trawl of the wider literature indicates that there are a number of terms that have been used to conceptualise growth, including: perceived benefits (Affleck, Tennen, Croog, & Levine, 1987), positive changes in outlook (Joseph, Williams, & Yule, 1993), stress-related growth (SRG; Park, Cohen, & Murch, 1996), posttraumatic growth (PTG; Tedeschi & Calhoun, 1996), thriving (Carver, 1998), positive by-products (McMillen, Howard, Nower, & Chung, 2001), and positive adaptation (Linley, 2003). Despite this array of terms, Joseph, Linley, and Harris (2004) argued that “the various measures of positive change all appear to be assessing the same broad construct, a finding that should facilitate the integration of different theoretical and empirical traditions in the study of positive change following trauma and adversity” (p. 94). However, despite this assertion the continued use of a diversity of terms can create confusion and incoherence in the literature. In an attempt to overcome some of the issues that may emerge from the use of different terms, Linley and Joseph (2004) adopted a collective term to encompass the associated terms, namely, *adversarial growth*.

A number of models of growth have been designed to conceptualise growth, of which many are based on Janoff-Bulman’s (1992) theory of shattered assumptions which advocated that people engage in a cognitive struggle to challenge their assumptive world following negative events. Janoff-Bulman’s work provides the underpinning theory for several models of growth that are characterised by cognitive engagement and schematic change, namely, the functional descriptive model (FDM; Calhoun, Cann, & Tedeschi, 2010; Calhoun & Tedeschi, 1998; Tedeschi & Calhoun, 1995, Tedeschi & Calhoun, 2004), the organismic valuing theory of growth (OVT; Joseph & Linley, 2005), and the affective-cognitive processing model of

growth (ACPM; Joseph, Murphy, & Regel, 2012). A large proportion of the published empirical research that has explored growth and/or has tested the theoretical models of growth (e.g., Frazier & Kale, 2006; Gallaway, Millikan, & Bell, 2011; Sabiston, McDonough, & Crocker, 2007) has typically accepted Tedeschi and Calhoun's (1996) proposition that growth is identifiable through five domains following the individual's struggle to deal with the shattered self. These five domains that also provide the cornerstone of the PTG Inventory (PTGI; Tedeschi & Calhoun, 1996) comprise: greater appreciation of life and changed sense of priorities; warmer, more intimate relationships with others; a greater sense of personal strength; recognition of new possibilities or paths for one's life; and spiritual development. Despite widespread acceptance of the PTGI as providing the indicators of growth, following a systematic review of the PTG and life threatening physical illness literature, a new awareness of the body was identified as an additional domain (Hefferon, Greal, & Mutrie, 2009), although it was suggested by the authors that this is probably restricted to growth following illness.

In contrast to the aforementioned models that are characterised by cognitive engagement and schematic change, some models have been influenced by the notion of growth as a coping process which is central to Taylor's (1983) cognitive adaption model of adjustment to threatening events. Her theory posited that cognitive processes that result in benefit finding are essentially coping mechanisms to relieve stress. This idea has led a number of researchers to conceive that some instances of reported growth may represent coping strategies that allow individuals to deal (at least initially) with the adversity (e.g., Cho & Park, 2013; Zoellner & Maercker, 2006a). Of particular interest, as it addresses both the functional constructive side of growth and growth as a coping mechanism, is the two-component or Janus-face model of growth (Maercker & Zoellner, 2004; Zoellner & Maercker, 2006a) which was influenced by Taylor's ideas and her theoretical explanation of positive illusions. The authors of the two-component model suggested that growth is reminiscent of a Janus-faced character which has two faces, a functional (or constructive) side and an illusory side. The functional, constructive, self-transcending side is analogous with the model proposed by Tedeschi and Calhoun (2004). However, the illusory or dysfunctional side (Maercker & Zoellner, 2004) involves individuals engaging in a process of self-deception following adversity in order to convince themselves that positive outcomes have occurred, this is often associated with maladaptive coping strategies which may occur following adversity. However, they acknowledged that as a coping mechanism the illusory side may act as a short term palliative coping strategy.

Increasingly, the notion that there may be positive consequences of growth is being

investigated by researchers who are interested in the experiences of athletes participating in competitive sports. Like the wider population, athletes are exposed to adversities that are part of the normative human experience (e.g., illness, bereavement), however, the demanding and potentially stressful environment of the competitive sport arena (Rumbold, Fletcher, & Daniels, 2012) exposes athletes to additional stressors (e.g., injury, transition, organisational stressors, performance slumps). Consistent with findings from the wider growth literature, athletes and coaches have identified that there are positives associated with the experience of these adversities. In the context of the broad range of adversities that athletes may experience, researchers studying the psychology of sport, like their general psychology and trauma counterparts, have also failed to reach a consensus on the terms to utilise to refer to these positive experiences or outcomes. Researchers have explored benefits (Udry, Gould, Bridges, & Beck, 1997), perceived benefits (Wadey, Evans, Evans, & Mitchell, 2011), PTG (Crawford, Gayman, & Tracey 2014; Day, 2013; McDonough, Sabiston, & Ullrich–French, 2011; Sabiston et al., 2007), SRG (Galli & Reel, 2012a; Wadey, Clark, Podlog, & McCullough, 2013), and adversarial growth (Galli & Reel, 2012b; Sarkar, Fletcher, & Brown, 2015; Tamminen, Holt, & Neely, 2013) that athletes may experience as a consequence of dealing with adversity.

Engagement in sport involves the affiliation with a micro culture where individuals are socialised into accepting and internalising specific norms, values, and behaviours (Hanrahan, 2010). Yet within this micro–culture there are sub–cultures that may have different norms, values, and behaviours. One of these sub–cultures comprises those individuals who are performing at an elite level in their sport. In exploring athletes’ experiences in sport it is important to determine whether a sample (or an individual) is elite as Anderson, Hanrahan, and Mallet (2014) argued that elite athletes may have different motivations for participation, different psychological responses to competition, and may experience pressure in different ways to non–elite athletes. In a study exploring psychological adjustment, mood, self–esteem, and psychological skills, elite athletes scored significantly lower than the less successful athletes on the interpersonal sensitivity, depression, psychoticism, and global severity scales (Mahoney, 1989). More recently, Calmeiro, Tenenbaum, and Eccles (2014) identified that elite athletes are more likely to cope with negative appraisals than non–elite athletes and are more likely to use problem–focused coping. Additionally, there are dominant messages or cultural scripts in elite sport that non–elite athletes may be resistant to, such as the performance narrative (Douglas & Carless, 2006), a prescriptive, highly structured environment that reduces opportunities for independence (Warriner & Lavalley, 2008), or the requirement to develop a particular body shape such as the “swimmer body” in elite competitive swimming (McMahon

& Thompson, 2008, p. 23). Whilst this may intuitively suggest that there are differences between elite and non-elite, it is complicated by the lack of consensus in the sport performance literature about what constitutes elite. In a review of the literature, Swann, Moran, and Piggott (2015) found a wide range of characterisations of the term elite, ranging from Olympic gold medallists and world-record holders, to regional and university level athletes. To counter these inconsistencies they proposed a model or heuristic device for classifying expert samples in sport which accounts for the athlete's highest standard of performance, success at the athlete's highest level, experience at the athlete's highest level, competitiveness of sport in the athlete's country, and the global competitiveness of sport.

At this juncture, although a number of studies have been published exploring the adversarial growth experiences of athletes who are performing at elite level, as a body of work they currently lack coherence, and it is thus appropriate to synthesise the current literature linking the past and future research (Pillemer, 1984). Accordingly, the purpose of this review is to ascertain what the literature contributes to our understanding of the conceptualisation of adversity-related growth in elite level athletes.

Method

Meta-Synthesis

All of the studies that have explored growth in elite sport have utilised a qualitative approach and therefore a meta-synthesis was deemed appropriate to synthesise the research in this area. The term 'qualitative meta-synthesis' was first used by Stern and Harris (1985) to refer to the amalgamation of a group of qualitative studies. However, current meta-syntheses go beyond amalgamation and involve an interpretative integration of the findings of multiple studies to construct an account of the literature that is more "than the sum of the parts" (Sandelowski & Barroso, 2007, p. 18), and opens up new insights into a topic area may not be visible in standalone studies (Walsh & Downe, 2005). It was deemed appropriate to carry out a meta-synthesis into the adversity-related growth of elite athletes at this juncture because although posttraumatic growth (PTG) and related concepts are a well-established focus for trauma and general psychology researchers, it is only relatively recently that sport researchers have applied these concepts to sport. However, there has been a rapid increase interest in this topic but, in parallel with the wider literature, despite their shared interest researchers have utilised different terms to address what are theoretically analogous concepts, and it is now appropriate to synthesise these findings to assess the current understanding of growth in sport. Walsh and Downe (2005) argued that there is a case for a tight and precise focus at the commencement of the process. Accordingly, given the potential differences between elite and

non–elite performers, and the implications for applied practice, only the research on elite athletes was synthesised.

Locating the Research and Determining Relevance

A conventional search of the literature was carried out using the following databases: Applied Social Sciences Index and Abstracts, Physical Education Index, Medline, PsycARTICLES, PsycINFO, SportDISCUS, and Zetoc. The initial search was based on the string “adversity” OR “adversarial” OR “trauma” OR “traumatic” AND “posttraumatic growth” OR “growth” OR “perceived benefit*” OR “positive outcome*” OR “stress related growth” OR “positive adaptation” AND “sport” OR “elite”. The process is illustrated in Figure 1. The search resulted in an initial sample of 253 contributions published in journals or books/conference proceedings. One of these journal papers (Howells & Fletcher, 2015) was the result of the study reported in chapter three of this thesis which was published in collaboration with my supervisor, Dr David Fletcher. For the purposes of this synthesis the data is taken from, and is referred to as, chapter three. A hand search of papers resulted in two unpublished studies being included (these two studies are part of this present thesis and are reported in chapters four and five). A first appraisal of the relevance of the article titles in respect of the focus of the review and the exclusion of duplicates reduced the sample to 38. The abstracts of these remaining studies were read and were accepted or rejected based on relevance to the research question. Precise inclusion and exclusion criteria were defined to aid this process and are included in Table 9. Specifically, quantitative studies, and exercise and leisure studies were excluded reducing the sample to 25. All 25 papers were read in their totality and several ($n = 4$) were excluded as they focused on the related concepts of resilience or thriving rather than growth, others ($n = 5$) were excluded as they focused on the benefits of engaging in sport rather than positive outcomes of an experience/event. The papers were then identified as being suitable or unsuitable for inclusion based on the elite status of the athletes.

Ultimately, ten papers were identified as addressing adversarial growth in elite samples, including one disability paper, which were included in the synthesis (see Table 10). It was decided to include the disability paper as findings from a study that compared motivational factors and coping strategies of elite athletes with and without physical disabilities identified that: “few differences were observed. . . . The experience of elite competition is similar for individuals with and without a disability” (Pensgaard, Roberts, & Ursin, 1999, p. 245), although the authors of the study acknowledged that disabled athletes are inclined to use less redefinition and growth strategies than Olympic athletes. The sample size is consistent with other meta–syntheses and allows the interpretive validity of the findings to be preserved. This

is important as validity can be threatened by overly large samples (Fingeld, 2003). There has been some debate as to whether it is appropriate to synthesise studies using different approaches. Noblit and Hare (1988) proposed that meta-synthesis in the context of ethnographic research could only be applied to studies that utilise the same method. However, a number of researchers have argued that it is legitimate to include a variety of approaches and methods in a synthesis (e.g., Walsh & Downe, 2005; Dixon-Woods, Agarwal, Jones, Young, & Sutton, 2005) in order to achieve a comprehensive awareness that incorporates multiple viewpoints in a topic area; this approach has been adopted by a number of researchers (e.g., Williams et al., 2014). Accordingly, it was decided to include studies irrespective of the qualitative methodology employed. Further, Dixon-Woods et al. (2006) argued that it is legitimate to include findings from one paper even when other findings from the same paper might be rejected (e.g., Jensen & Allen, 1996; Sandelowski et al., 1997; Williams et al., 2014). Accordingly, as an example, themes from one paper (Podlog & Eklund, 2006) were excluded as they did not refer to adversity, the coping or transitional processes, or the subsequent positive outcomes.

In respect of the elite status of study participants, papers were assessed as to whether the participants were elite. Where the information was inaccessible, the authors were contacted regarding the elite status of their participants. Where there was still doubt, Swann, Moran, and Piggot's (2015) taxonomy for classifying expert samples in sport psychology was used as a heuristic device. Whilst this assisted in classifying the participants, it was noted that the classification scores were not mutually exclusive; to illustrate, a score of four could be categorised as semi-elite or competitive elite. In the sample of papers, there were studies ($n = 2$) which could be categorised as either of the aforementioned categories. Additionally, some information required to fully utilise their classification system was absent from many of the studies such as the time spent at the highest level of competition. Accordingly, demographic and qualitative information provided by the authors was used in conjunction with this taxonomy. However, there remained a number of papers which were identified as comprising both elite and non-elite participants. Xu (2008) argued that where there are adequate participant indicators that allow separation of data then the data from a portion of a study's participants can be included in the meta-synthesis. Consequently, data was excluded from two papers (Wadey et al., 2013; Podlog et al., 2013) due to some participants not fulfilling the criteria of being elite, or information not being attributable to individual elite participants.

Quality Appraisal

Appraisal of papers selected for review is vital to ensure that the papers included are

Figure 1

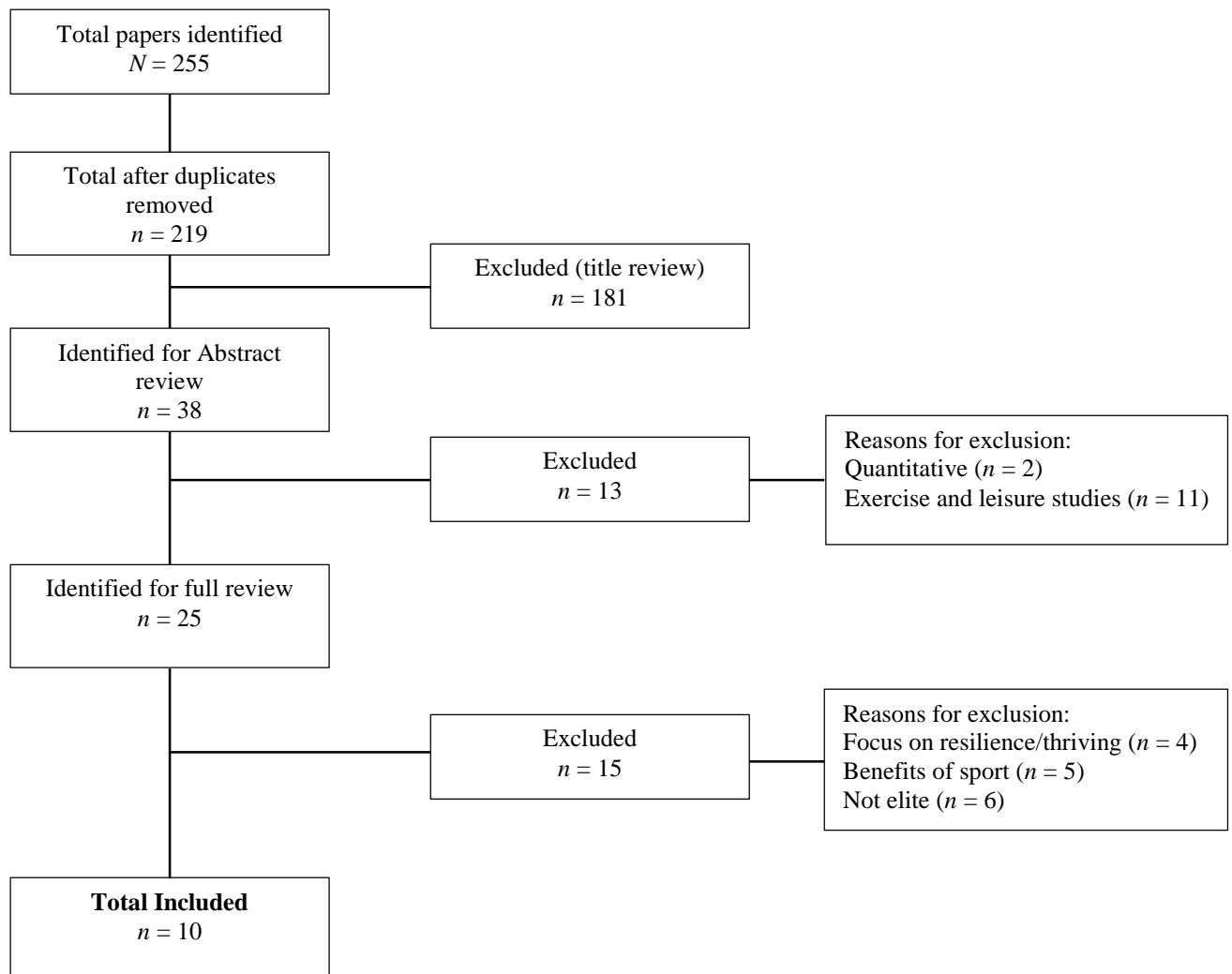
Search Strategy

Table 9

Examples of Studies based on the Inclusion and Exclusion Criteria

<i>Criteria</i>	<i>Reasons for Exclusion</i>
(1) Qualitative research	Quantitative research studies (e.g., Galli & Reel, 2012b)
(2) Competitive sport, elite participation	Exercise studies (e.g., Hefferon, Grealy, & Mutrie, 2008). Non-elite sport (e.g., Galli & Reel, 2012a; Sabiston, McDonough, & Crocker, 2007; Wade et al., 2011).
(3) Focus on growth	Focus on related constructs such as thriving (e.g., Harris, Myhill, & Walker, 2012); resilience (e.g., Galli & Vealey, 2008)
(4) Quality check	All included

Table 10

Details of Studies Included in the Review

	<i>Authors</i>	<i>Aim</i>	<i>Whole or part paper</i>	<i>Growth terminology</i>	<i>Sample (size, gender, age, sport, level, role)</i>	<i>Data Collection</i>	<i>Design/Analysis</i>
1	Udry et al. (1997)	To examine (a) psychological responses of injured athletes' injuries, and (b) long term benefits perceived they obtained from their injuries.	Whole	Positive outcomes (p. 232) and benefits (p. 240)	21; 10 female, 11 male; mean age = 23.9 years; skiing; international; athletes	In-depth interviews	Inductive data analysis (Scanlan, Stein, & Ravizza, 1989)
2	Podlog & Eklund (2006)	To examine the experiences of competitive athletes returning to sport following a serious injury.	Part – restricted to “Encounters with Adversity” and “Positive consequences of Injury” in entirety – some themes in other areas included	Positive consequences	12; 5 female, 7 male; aged 18–28 years; team and individual sports; Commonwealth Games (major nation), World Championships, international, national/state level, semi-professional; athletes	Interviews	Constant comparative method of analysis
3	Tamminen et al. (2013)	To explore experiences of adversity and to examine perceptions of growth following adversity among elite female athletes	Whole	Adversarial growth	5; all female; 18 – 23 years; team and individual sports; international competition; athletes	Semi-structured interviews	Interpretative phenomenological analysis
4	Wadey et al. (2013)	To examine coaches' perceptions of athletes SRG following sport injury.	Part – 3 coaches' data removed due to being non-elite	Stress related growth	8; all male; 30 – 59 years (M = 45.7, SD = 11.2); team and individual sports; club to international; coaches	Structured life world interviews	Content analysis
5	Podlog et al. (2013).	To examine adolescent athletes' injury recovery and return-to-sport experiences.	Part – Four participants removed for not being elite. Range	Stress related growth	11; 8 females, 3 males; 12 – 17 years (M = 15.3, SD = 1.55); team and individual sports; top	Interviews – interview schedule available	Intratextual and intertextual analysis using constant

<i>Authors</i>	<i>Aim</i>	<i>Whole or part paper</i>	<i>Growth terminology</i>	<i>Sample (size, gender, age, sport, level, role)</i>	<i>Data Collection</i>	<i>Design/Analysis</i>	
		of stressors and the negative outcomes excluded		state level (major nation); athletes		comparative method of analysis.	
6	Day (2013)	To explore Paralympic athletes lived experiences of becoming physically active after disability and the role this has in the development of PTG	Whole	Posttraumatic growth	7; 3 female, 4 male; over 18 years; unknown; Paralympic Triallists; athletes	Multiple Life history interviews	Holistic content analysis informed by an interpretation paradigm
7	Chapter three	To explore the adversity– and growth– related experiences of Olympic swimmers	Part – rejected information on the characterisation of the adversities	Adversarial growth	7; 3 female, 4 male; age of Olympic participation ranged 14–41 (M = 23.39, SD = 6.04); swimming; Olympic Champions; athletes	Autobiographies	Holistic form and holistic content analysis informed by a narrative tradition
8	Sarkar et al. (2015)	To explore the adversities that the world’s best athletes encounter and the perceived role that these experiences play in their psychological and performance development.	Part – information about adversities rejected	Growth and adversity– related growth	10; 4 female, 6 male; 33 – 70 years (M = 47.60, SD = 12.06); team and individual sports; Olympic champions; athletes	Semi–structured interviews	Inductive thematic analysis
9	Chapter four	To explore Olympic swimmers’ experiences of both constructive and illusory growth.	Whole	Adversarial growth	4; 2 female, 2 male; over 18 years; swimming; Olympic; athletes	Interviews and timelines	Interpretative phenomenological analysis
10	Chapter five	To identify whether coaches corroborated the growth experiences of elite level swimmers.	Whole	Adversarial growth	11; 1 female, 10 male; range 31 – 57 years (M= 41.5, SD = 8.01); swimming; World, Olympic, Commonwealth (major nation); coaches	Interviews	Qualitative content analysis

devoid of any methodological deficiencies (O'Connell & Downe, 2009). As yet, there is no prescribed quality assessment for meta-syntheses so the quality assessment suggested by Atkins et al. (2008) was adopted. An inclusive approach was taken, including all articles that were selected in the analysis, in order to ensure a greater representation of the area (see e.g., Cohen & Colleens, 2013; Williams et al., 2014). The quality assessment can be seen in Table 11.

The Process

A “translation synthesis” (Hoon, 2013, p. 526), consistent with a constructivist epistemology was carried out. The goal of this type of synthesis is idiographic in nature and strives to gain a greater understanding of the way in which individuals create and interpret their world. In accordance with the approach suggested by Atkins et al. (2008) the articles were arranged in chronological order starting with Udry et al. (1997); this allowed the synthesis to capture the evolution of growth in elite sport. From this initial study, three broad headings were identified to guide analysis of the data from the remaining articles, these themes were Emotional Response, Coping with the Trauma, and Personal Growth. As each paper was analysed the themes became refined through a process of reciprocal translation which involved the translation of studies into one another by comparing the themes from one paper with those in another. As new findings were identified then articles that had previously been reviewed were revisited and new themes were added. The identification of themes involved the use of participants' direct quotes and the original themes interpreted by the researchers (Williams et al., 2014) and accordingly, some quotes from the researchers' interpretations are included to elucidate the emergent themes (e.g., Nelson, 2006).

Results

Of the 10 papers sampled, five were addressed in their entirety, whilst five were partially addressed. Descriptive information about these studies is presented in Table 10. Published between 1997 and 2015, the 10 studies sampled a total of 96 participants (55 males, 41 females) who ranged in age from 14 years (at the time of Olympic participation) to 70 years, and represented both individual and team sports. The studies used a number of terms to refer to the positive outcomes of adversity, namely: positive outcomes and benefits (n = 1), positive consequences (n = 1), adversarial growth (n = 4), SRG (n = 2), PTG (n = 1), adversity-related growth (n = 1). It was noted however, that over time researchers have become more intent on justifying their use of certain terms rather than referring merely to “benefits” as per the original study (viz. Udry et al., 1997). For example, Wadey et al. (2013) argued that “the choice of terminology is not trivial. . . . Researchers need to consider the event or condition under

Table 11

Criteria for Evaluation of the Reviewed Studies

<i>Study (date)</i>	<i>C1</i>	<i>C2</i>	<i>C3</i>	<i>C4</i>	<i>C5</i>	<i>C6</i>	<i>C7</i>	<i>C8</i>	<i>C9</i>	<i>C10</i>	<i>C11</i>	<i>C12</i>
Udry et al. (1997)	Yes	No	Yes	Yes	Yes	No	?	Yes	Yes	Yes	Yes	Yes
Podlog & Eklund (2006)	Yes	Partially	Yes	Yes	Yes	Yes	?	Yes	Yes	Yes	Yes	Yes
Tamminen et al. (2013)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Wadey et al. (2013)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Podlog, et al. (2013).	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Day (2013)	Yes	Partially	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Chapter three	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Sarkar et al. (2015)	Yes	Yes	Yes	Yes	Partially	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Chapter four	Yes	Partially	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Chapter five	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Note. **C1:** Are the research questions clearly stated? **C2:** Is the qualitative approach clearly justified? **C3:** Is the approach appropriate for the research question? **C4:** Is the study context clearly described? **C5:** Is the role of the researcher clearly described? **C6:** Is the sampling method clearly described? **C7:** Is the sampling strategy appropriate for the research question? **C8:** Is the method of data collection clearly described? **C9:** Is the data collection method appropriate to the research question? **C10:** Is the method of analysis clearly described? **C11:** Is the analysis appropriate for the research question? **C12:** Are the claims made supported by sufficient evidence. ? insufficient evidence to assign

examination and/or the individual's cognitive–evaluative reactions to it. This information will help to distinguish events or conditions that are considered stressful from those that are traumatic” (p. 126). However, Joseph et al. (2004) argued that these different terms appear to be assessing the same broad construct. Given the methodological approach it was deemed appropriate to interpret these studies as assessing the broad concept of adversarial growth. Theoretically the studies were underpinned by a variety of different models and theories: the original paper Udry et al. (1997) was informed by stage and adjustment models (e.g., Heil, 1993; Kubler–Ross, 1969) which may have had an impact on the identification of a process that involved distress, denial, and determined coping. Other papers (Podlog & Eklund, 2006; Podlog et al., 2013) were informed by self–determination theory (SDT; Deci & Ryan, 1985, 2007) which may account for their emphasis on the need for satisfaction of the basic psychological needs of autonomy, competence, and relatedness. However, the majority of the papers were informed by the growth theories and models that are prevalent in the wider growth literature. The main theories that informed the research were Joseph and Linley's (2005) OVT (Day, 2013; chapter three; Tamminen et al., 2013) Tedeschi and Calhoun's (2004) FDM of PTG (Day, 2013; chapter three; Sarkar et al., 2015; Wadey et al., 2013; chapters four and five), Joseph et al's., (2012) ACPM of PTG (chapter three), and the Janus–face model of growth (chapters four and five).

In the first iteration 256 initial themes were identified, duplicates were removed to leave 175 distinct themes. These initial themes were abstracted into 31 themes which were synthesised into three overarching themes: The Impact and Nature of the Adversity, Positive Coping, and Personally Transformative Changes.

Impact and Nature of the Adversity

The meta–synthesis revealed that understanding the adversarial growth experiences of elite athletes required the contextualisation of the *Impact and Nature of the Adversity* (Table 12). Despite a broad range of adversities identified across a wide range of sports, there were areas of commonality which were synthesised into three overarching concepts: (i) emotional and cognitive traumatisation, (ii) resistance and barriers to growth, and (iii) enduring nature.

Emotional and cognitive traumatisation. The participants experienced *emotional and cognitive traumatisation* which consisted of the emotional impact of the adversity and evidence of schematic disruption. The emotional impact of the adversity resulted in participants experiencing a range of negative emotions that included anger, diminished pride, and frustration. Rather than construing these negative emotions as being in opposition to growth experiences, they were on the contrary, identified as facilitative in promoting positive

outcomes: “those athletes who self–disclosed their emotions (e.g., anger, guilt, and jealousy) were found to return to competitive sport with stronger relationships with others and an improved ability to understand, express, and regulate their emotions” (Wadey et al., 2013, p. 126). At a cognitive level, adversity resulted in the schematic disruption to the fundamental beliefs and values about their identities as elite athletes or able–bodied individuals. As Tamminen et al. (2012) posited: “athletes’ questioning their identities and abilities may represent their cognitive schemas being shattered” (p. 32).

Resistance and barriers to growth. An initial response to adversity comprised resistance and there were barriers to growth occurring either in the short or the long term. *Resistance and barriers to growth* consisted of no positives being identified, avoidance strategies, maladaptive behaviours, and maintenance of the status quo. Despite the focus on growth in the synthesised papers this alternative outcome was acknowledged in four studies with some participants failing to identify any positive outcomes attributable to their experiences of adversity (Tamminen et al., 2013; Udry et al., 1997; chapters four and five). Tamminen et al. (2013) highlighted that this as an important finding as by “remaining open to the idea that not all experiences lead to growth . . . [this] shed[s] light on perceived expectations surrounding elite athletes” (p. 35). It was interpreted that a lack of positive outcomes may be the result of temporal aspects that require some time to pass before positives may be construed as a result of the adversity, and/or the assumption that the athletes had not yet faced the adversity. Two studies used corroborating accounts of coaches (Wadey et al., 2013; chapter four); in the study reported in chapter four there were occasions cited where coaches did not have the information about whether growth had occurred. This was due to a lack of information about the athletes’ experiences being available to coaches and as a consequence of the athletes’ self–handicapping strategies.

Most athletes responded to adversity by engaging in avoidance strategies including denial, avoidance coping, and a closed door analogy which as a short–term strategy allowed them to avoid any meaningful engagement with the adversity, as I explained in chapter four: “Interestingly from the perspective of better understanding growth experiences, although some of the [athletes] explicitly recognised that they used denial, they still attempted to positively reinterpret their experiences by seeking out positive outcomes” (p. 62). These inherently cognitive strategies were accompanied by maladaptive behaviours which involved the venting of emotions and the derogation of adversity–related experiences. Maintenance of the status quo was recognisable as individuals attempted to assimilate their negative experiences into their current schema and was a transitional process between adversity and growth. As it was

Table 12

Impact and Nature of the Adversity – Concepts and Themes and the Papers in which they were found

<i>Themes</i>			
<i>Initial Themes</i>	<i>Themes</i>	<i>Synthesis</i>	<i>Paper</i>
Depression or suicidal ideation	Emotional Impact of the Adversity	Emotional and cognitive traumatisations	1, 3
Isolation and withdrawal			1, 3
Loneliness			1
Blamed others			10
Can't handle the pressure			10
Struggling			10
Low (or loss of) in confidence			2, 3, 10
Self-pity			1, 10
Emotional disruption			3,1
Enduring distress			9
Initial loss of autonomy			6
Emotional response (e.g., frustration and anger)			10
Shock/disbelief			1
Vacillating emotions			1
Anger			1,4, 8, 9, 10
Jealousy			4
Guilt			4
Crying			1, 9, 10
Diminished pride			2
Need for revenge			10
Frustration			2, 5, 6, 7, 8, 10
Questioning what if	Schematic disruption		1
Questioning of identity			3, 9
Questioning of ability			3
Shattering of cognitive schemas			3, 8
Future unsure and changeable			6
Acknowledgement of the loss			2, 6
Unfavourable social comparison			2

<i>Themes</i>				
<i>Initial Themes</i>	<i>Themes</i>	<i>Synthesis</i>	<i>Paper</i>	
Overthinking				10
Wishful thinking				10
Not yet faced adversity	No positives	Resistance and barriers to growth		10
No benefits				1,10
Recency of the adversity				1,10
Self-handicapping				10
Left swimming/retired				9, 10
Little interaction outside swimming				10
Not all adversities were opportunities for growth				3
Closed door analogy	Avoidance strategies			7
Denial				5, 9, 10
Avoidance coping (try not to think about it)				5, 9
Hid from people				3
Shock, disbelief, and denial				1
Development of multiple identities				7
Used sport to forget				10
Breakdown of relationships				3
Turning to alcohol				7, 10
Venting of emotions	Maladaptive			5
Derogation of adversity-related experiences (social and temporal)	behaviours			9
Maintenance of normality	Maintenance of the			7
Maintenance of identity	status quo			9
Ongoing journey	Ongoing process	Enduring nature		3
Ups and downs				1
Rollercoaster journey				9
Daily struggles continue				3
Ongoing struggles				6
Ongoing process				7

Notes: 1 = Udry, Gould, Bridges, & Beck (1997); 2 = Podlog & Eklund (2006); 3 = Tamminen, Holt, & Neely (2013); 4 = Wadey, Clark, Podlog, & McCullough (2013); 5 = Podlog, Wadey, Stark, Lochbaum, Hannon, & Newton (2013); 6 = Day (2013); 7 = Sarkar, Fletcher, & Brown (2015); 8 = chapter three; 9 = chapter four; 10 = chapter five

explained in chapter three: “Although the maintenance of normality proved to be a somewhat effective strategy in the short-term, it was ultimately unsustainable resulting in the [athletes] acknowledging the need to confront their issues” (p. 45).

Enduring nature. The *enduring nature* of adversity consisted of adversity as an ongoing process. The experience of adversity is an ongoing process characterised by an ongoing journey, ups and downs, a rollercoaster journey, and daily struggles. Although many of the adversities experienced by elite athletes are acute in nature e.g., injury, illness, and bereavement, the experience is ongoing: “A . . . feature of athletes’ experiences was that adversity was part of an ongoing journey through elite sport” (Tamminen et al., 2013, p. 33). As one participant in the study reported in chapter four explained:

It was a hellish slog that was blood, sweat, guts, tears. . . . the road to the Olympics had some of the highest highs and some of the lowest lows and, in short, was an emotional rollercoaster – one which caused considerable anguish and heightened emotions (chapter four, p. 71).

Positive Coping

Although in the immediate aftermath of the adversity the athletes experienced negative emotions and then avoided dealing with the consequences of the adversities through denial, avoidance coping, and a closed door analogy, they also engaged in *positive coping* (Table 13). However, this strategy was not demonstrative of any schematic transformation or fundamental change to beliefs, values, or identity which may be interpreted as growth. Rather it reflected the athletes’ positive approach to the past, the present, and the future. There were areas of commonality which were synthesised into four overarching concepts: (i) self-determined alteration, (ii) motivated reasoning, (iii) psychological robustness, and (iv) heightened sport functioning.

Self-determined alteration. *Self-determined alteration* consisted of a move towards narrative congruence, the search for meaning and acceptance, and adopting a pragmatic approach to the future. Narrative congruence included the athletes questioning the performance narrative, adherence to a cultural script, and revising their life narratives. The narratives that circulate within society, sometimes referred to as a cultural script, that are evident in the wider population in general and in elite sport specifically inform athletes of how to make sense of their experiences, beliefs, and values. Narratives about elite sport in the form of a performance narrative (cf. Douglas & Carless, 2006) and narratives about overcoming adversity such as the restitution narrative (Frank, 1995) and the quest narrative (cf. Frank, 1995) were evident in the adversity-related experiences of athletes. The search for meaning and acceptance was

fundamental in promoting a positive outlook on the future, but, it was noted that “gaining acceptance was a difficult process and was not achieved by all” (Day, 2013, p. 2071). Acceptance was different from the acknowledgement of limitations (Day, 2013) but adopting a pragmatic approach to the future within the context of loss was important.

Motivated reasoning. *Motivated reasoning* consisted of the use of motivated illusions, and adopting a positive approach towards the individual’s current situation. These were evident the development of positive illusions, as one coach explained: “[The athlete] was still very very positive . . . everything in the garden was wonderful and she was going to be as successful as she always was” (chapter five, p. 94). The positive approach was characterised by optimism and looking for the positives in the experience of adversity. Interestingly, Udry et al. (1997) reported that “the impetus behind adopting positive outlook/coping attempts may have been that athletes were able to focus on future sport related goals or events” (p. 239).

Psychological robustness. Dealing with adversity resulted in an increased *psychological robustness* which may be analogous to some growth-related concepts such as thriving and resilience. The robustness identified included increased mental toughness, increased mental strength, and an increased confidence in achieving goals. These psychological characteristics were noticed by the athletes and they attributed their presence to the adversities that they had suffered. Several participants in the studies referred explicitly to mental toughness, while others referred to an increased mental strength or confidence. One participant explained: “At this point, I’d say that [the injury has] definitely made me mentally tougher. . . . I guess now I’ll see it as something bad that’s happened but I’ve overcome it and I think it’s made me a stronger person” (Podlog & Eklund, 2006, p. 62). Another athlete stated; “It’ll [injury will] probably help me mentally, like, it’ll make me stronger, with me getting back into it again” (Podlog et al., 2013, p. 443). One athlete referred to the journey back from injury which resulted in an increase in confidence: “I think as the season has gone on, my performance has improved and I think that’s mirrored my confidence with my shoulder. It’s got to the stage now where I don’t even see it as an inhibitor or problem” (Podlog & Eklund, 2006, p. 58).

Heightened sport functioning. Athletes’ experiences of adversity involved the development of *heightened sport functioning* that consisted of reassessment of sporting beliefs, enhanced physical conditioning, enhanced sport performance, and enhanced sport engagement. All of the papers synthesised identified heightened sport functioning as a consequence of adversity suggesting that the majority of elite athletes’ performance positively benefited from adversity. As one coach commented:

It definitely made her . . . a much better swimmer . . . after she came back after being

Table 13

Positive Coping – Concepts and Themes and the Papers in which they were found

<i>Themes</i>				
<i>Initial Themes</i>	<i>Themes</i>	<i>Synthesis</i>	<i>Paper</i>	
Questioning of performance narrative	Move towards narrative congruence	Self-determined alteration	7	
Quest narrative			7	
Development of a counternarrative (hindsight)			9	
Adherence to a cultural script (growth)			9	
Growth mindset			10	
Restitution narrative			10	
Rejection of performance narrative			10	
Revision of narratives			6	
Acceptance	The search for meaning and acceptance		6	
Acceptance and dealing with it			1	
Meaning of pre-trauma life			6	
Problem-focused coping			5	
Search for meaning			7, 9, 3	
Planning for the future			10	
Acknowledgement of what not possible	Pragmatic approach to the future		6	
Acknowledgement of difficulties with coping in new reality			6	
Test limits of capabilities			6	
Positive thoughts	Motivated illusions	Motivated reasoning	1	
Creation of positive illusions			9, 10	
Illusory growth			9	
Good attitude and optimism	Positive Approach		1, 4	
Optimism for the future			9, 10	
Focus on getting better			1	
Relief about recovery			1	
Cognitive manipulations (assimilation of a positive bias and positive outlook)			9, 5, 1	
			10	
Looking for the positives			2	

<i>Themes</i>			
<i>Initial Themes</i>	<i>Themes</i>	<i>Synthesis</i>	<i>Paper</i>
Increased mental toughness	Psychological robustness	Psychological robustness	2
Increased mental strength			5, 3, 4
Robustness			10
Coping better with setbacks			10
Life experience			10
Character development			2
Increased confidence in achieving goals			1, 4, 2
Focus on sporting goals	Reassessment of sporting beliefs	Heightened sport functioning	1
Importance of sport			2
Reevaluation of sport			3
Meaning of sport			3
Appreciation for sport			3
Realise importance of sport			1
Appreciation of their role in sport			4
Greater enjoyment of the sport			10, 4
Positive attitude to sport			4
Improved physical skills – technique/tactical	Enhanced physical conditioning		1, 2, 4, 10
Improved physical strength			4
Improved conditioning			10, 2, 3, 1, 4
Mastery of success and management of risk	Enhanced sport performance		6
Superior performance			7, 9, 10
Higher world ranking			2, 5, 8
Faster			10
Increased effort	Enhanced sport engagement		8
Quality of training			10
Increased confidence in abilities			10, 4
Planning for future (performance based)			10
Increased motivation			8, 10, 2, 5, 7

Notes: 1 = Udry, Gould, Bridges, & Beck (1997); 2 = Podlog & Eklund (2006); 3 = Tamminen, Holt, & Neely (2013); 4 = Wadey, Clark, Podlog, & McCullough (2013); 5 = Podlog, Wadey, Stark, Lochbaum, Hannon, & Newton (2013); 6 = Day (2013); 7 = Sarkar, Fletcher, & Brown (2015); 8 = chapter three; 9 = chapter four; 10 = chapter five

sick. . . . She was good before, but nowhere near this level. She is much faster . . . her world ranking is higher than she was before. It made her the swimmer that she is today (chapter five, p. 95).

Another coach explained: “His positioning, marking, discipline, and attack improved massively” (Wadey et al., 2013, p. 132). However, Podlog et al. (2013) acknowledged that this was not the case for all athletes and explained that there was uncertainty in this area. One participant stated:

“Um [long pause] not real sure actually [if the return has been a success]. A little bit, but probably not because I haven’t been playing as well as I was before the injury. I’ve just not been able to like, I could keep up with the game, but not as much as what I could before” (Podlog et al., 2013, p. 443).

Whilst the outcome of enhanced performance was clearly positive, it was not necessarily accompanied by any fundamental change to schema but was the product of increased motivation. Michael Phelps explained his motivation following being told by a school teacher in the context of his ADHD diagnosis that he would “never be successful. Things like that stick with you and motivate you” (chapter three, p. 41). Another participant explained:

[But] if I hadn’t have failed in Athens, I wouldn’t have succeeded in Beijing . . . It takes losses like that sometimes, even though they’re hard to swallow, hard to deal with. It will benefit you later on in life” (Sarkar et al., 2015, p. 477).

Personally Transformative Changes

Personally Transformative Changes refers to a more fundamental and durable change following individuals’ experiences of adversity. There were areas of commonality which were synthesised into four overarching concepts: (i) schematic transformation, (ii) insightful comprehension, (iii) body–self relationship, and (iv) relational and interpersonal enrichment (see Table 14).

Schematic transformation. *Schematic transformation* consisted of an opening of possibilities, cognitive adjustment, and changes in identity/personality. The opening of possibilities for the future emerged as a result of valuing the accelerated learning that was acquired through a process of reflection which “proposes that humans are drawn by the future rather than solely driven by the past” (Sarkar et al., 2015, p. 478), the realisation of the possibilities that were available, and the clarification of priorities. Day explained that: “while participants’ initial descriptions focused on experiences that had been lost, the ‘wake–up call’ of trauma prompted participants to consider what was possible” (p. 2069) and illustrated this with a quote from a participant: “It’s ironic isn’t it, that I’d always wanted to try [specific sport]

but I'd never have actually got off my sofa and done it before the accident" (p. 2069). Cognitive adjustment was apparent in fundamental changes in perspectives, perceptions, and through evidence of cognitive processing involving positive accommodation as Tamminen et al. (2013) explained in discussing an athlete's negative experience training at a national level that "she had accommodated her previous schemas about herself and her prior abilities an athlete" (p. 34). The schematic transformation involved identity and personality changes which were identifiable through "general statements such as 'I became more mature'. . . . [Or] in a more specific way, such as they acquired an increased sensitivity to other injured athletes" (Udry et al., 1997, p. 241).

Insightful comprehension. *Insightful comprehension* consisted of appreciation, significance of meaning, and reflective opportunities. Athletes identified a greater appreciation of life in general, and what the importance of their sport was for them specifically, for example, one athlete explained: "people have always said to me that 'you never know what you have until you lose it'. But I never understood how important skiing was to me until it was completely taken away from me" (Udry et al., 1997, p. 240). Although Tamminen et al. (2013), and the studies reported in chapters three and five, identified the search for meaning as a key identifier of growth, two studies (Day, 2013; chapter four) distinguished between comprehension and significance in meaning. Day identified that "for all participants, while initial meanings were sought through comprehensibility of trauma, later meanings were gained through the search for significance" (p. 2070). The presence of reflective opportunities was an important aspect of insightful comprehension as athletes reflected, recharged, re-evaluated, adapted, and refocused through rest.

Body-self relationship. The *body-self relationship* consisted of body awareness and improved physique. Beyond the physical improvements that were identifiable in superior performance, a heightened sense of the body in relation to the self was acknowledged. This included greater body awareness, especially in respect of how their bodies felt and responded to external stimulus, and also a perception of improved physique and how this reflected on the athletes' sense of self. A coach discussed his athletes' increased awareness of the body: "They have a greater knowledge of their body and how to stop injuries happening" (Wadey et al., 2013, p. 130). Another participant explained that: "the body can do amazing things and I don't know, I think everyone should learn those amazing things about themselves" (Tamminen et al., 2013, p. 32).

Relational and intrapersonal enrichment. *Relational and intrapersonal enrichment* consisted of the importance of social networks, prosocial behaviour, enhanced interpersonal

Table 14

Personally Transformative Changes – Concepts and Themes and the Papers in which they were found

<i>Themes</i>			
<i>Initial Themes</i>	<i>Themes</i>	<i>Synthesis</i>	<i>Paper</i>
Learning opportunities	Opening of possibilities	Schematic Transformation	5, 8
Realise the possibilities			6
Clarification of priorities			1, 4, 10,
Wake up call			6
More balanced outlook	Cognitive adjustment		4, 10
Change in life philosophy		7, 9	
Change in perspective		2, 6, 9	
Changes in perceptions of sport networks		1, 3	
Cognitive processing		9	
Positive accommodation		7, 9	
Accommodation		3	
Identity changes	Changes in identity and/or personality		9
Personality changes – improved		1	
Greater appreciation of life	Appreciation	Insightful comprehension	9
Appreciation of what have			1
Enhanced life meaning	Significance of meaning		6
Finding meaning		3	
Greater self–awareness		4	
Spiritual awareness		7, 9, 10	
Adapt	Reflective opportunities		6
Re–evaluate goals		10	
Versatility		10	
Renewed sense of purpose		4	
Increased reflection		8, 1	
Time to recharge		1	
Refocus through rest		10	
Awareness of own bodies	Body awareness	Body–self relationship	1, 3
Greater self–awareness (especially of bodies)			4
Positive body language			1, 4
Injury awareness			1, 4
Improved health behaviours (e.g., cessation of risky behaviours)			4

<i>Themes</i>			
<i>Initial Themes</i>	<i>Themes</i>	<i>Synthesis</i>	<i>Paper</i>
Looks better – aesthetics	Improved physique		10
Weighing less			10
Reduction in skin fold measurements			10
Enlistment of social support	Importance of social networks	Relational and intrapersonal enrichment	7, 5
Social support			9, 10, 3
Enhanced relationships			7, 9, 3
Disclosure			1, 3, 9
Support from teammates			10
Pro-social behaviour	Prosocial behaviour		7
Philanthropic work			9
Went into counselling			10
Set up national and international swimming schools (MS)			10
Gaining a desire to help others			5
Better time management	Enhanced interpersonal and intrapersonal skills (non-sport)		1
Developed aspects of non-sporting life			1
Increased maturity			10, 4
Independence			1, 10
Increased patience			5
Improved interpersonal and intrapersonal intelligence			4
Better regulation of emotions			4
Transferability to other domains			6
Transferred to personal life			10
Empathy			1, 3, 4
Speaking out			3, 9
Realistic expectations	Reasoned values		1
Understanding			10
Higher expectations of self and others			3
Take responsibility – greater sense of responsibility	Increased autonomy		6
Greater sense of choice			6
More relaxed	Enhanced emotional state		4
Happiness			10
Enhancing self esteem			10
Increased mindfulness			4

Notes: 1 = Udry, Gould, Bridges, & Beck (1997); 2 = Podlog & Eklund (2006); 3 = Tamminen, Holt, & Neely (2013); 4 = Wadey, Clark, Podlog, & McCullough (2013); 5 = Podlog, Wadey, Stark, Lochbaum,

Hannon, & Newton (2013); 6 = Day (2013); 7 = Sarkar, Fletcher, & Brown (2015); 8 = chapter three; 9 = chapter four; 10 = chapter five

and intrapersonal skills (non-sport), reasoned values, increased autonomy, and an enhanced emotional state. The importance of social support was a key theme in many of the studies synthesised with the need for social support, the opportunity for disclosure, and the enhancement in the quality of the relationships being inextricably interlinked. One participant explained:

I have become closer with my coaches when an injury or something like that happens and they're there to help me get through it all. My dad always tried to make me realize just to kind of stick through it. I wouldn't be here without him (Tamminen et al., 2013, p. 33).

Prosocial behaviour in the form of actions such as philanthropy, counselling, and giving something back to sport was an important observational marker for growth, "thus transcending [their] own personal achievements" (chapter three, p. 50), as one participant elucidated: "the plight of these children matters to me. I want to make a difference and I will help in any way I can" (p. 48). Positive elements of growth were evident outside the sporting domain, with development of enhanced inter- and intra-personal skills. Wadey et al. (2013) described it as: "In particular, [the athletes developed] the ability to understand and express one's emotions and effectively interpret other people's emotions" (p. 130). More reasoned values were particularly evident in the development of higher expectations of the self and others: "she . . . developed higher standards for her subsequent friendships. . . . [and they] perceived their social networks differently following adversity . . . [one athlete] reported that she lost respect for some of her teammates and ultimately lost some friendships" (Tamminen et al., 2013, p. 33). Other athletes became more empathetic to their peers:

It's kind of funny because it really opened my eyes a lot. After I was hurt, I tried to be sure to write those girls [injured teammates] letters and faxes and whatever to be sure that they know I am thinking about them and can't wait for them to get better and come back (Udry et al., 1997, p. 241).

Aspects of autonomy were discussed in a number of papers (Podlog & Eklund, 2006; Podlog et al., 2013; chapter four) as one athlete explained: "Now it's different, yes I get advice from coaches and other people but I make the choices, and actually they ask for my opinion, what feels right for me" (Day, 2013, p. 2069). However, it was the role of taking responsibility and the fostering of personal control that "was perceived as promoting growth" (Day, 2013, p. 2071). Athletes experiencing growth tended to demonstrate an enhanced emotional state but this did not preclude some ongoing distress (chapter four).

Discussion

The purpose of the meta-synthesis was to collate and combine the existing information on the adversity- and growth-related experiences of elite athletes through a synthesis of the qualitative research. It is the first synthesis involving elite athletes and their experiences of adversarial growth, and accordingly contributes original and important knowledge by revealing a more meaningful understanding of the intricacies of the athletes' experiences. It is apparent that in alignment with the wider growth literature there is little consensus in the sport psychology community about the use of terminology to be used to explore the adversity or stress related experiences of elite athletes. However, despite this current situation, to develop an understanding of the existing status of growth in elite sport it has been necessary to accept Joseph et al.'s (2004) argument that the variety of terms used as measures of change and growth are assessing the same construct. The meta-synthesis provides two significant contributions to the extant literature, namely, a more nuanced understanding of the conceptual evolution of growth in elite sport, and an identification of some similarities as well as some dissonance with the broader trauma and psychological theoretical and conceptual literature.

The synthesis contributes important knowledge about our understanding of growth in elite sport and how that knowledge has evolved since the first study in the area (*viz.* Udry et al., 1997). To ascertain the development of understanding of growth in elite sport it was deemed appropriate to use a translation synthesis (Hoon, 2013) which involved a chronological consideration of the identifiable papers. It is worth noting at this juncture however, that in reflecting on the methodological process, it is possible that the order in which the papers were considered may have impacted on the emergent themes (see, Atkins, 2008). Interestingly, at first appraisal it appears that the development of our understanding from Udry et al.'s first paper published in 1997 and the most recent studies (e.g., chapter four) have not progressed appreciably. Udry et al. (1997) clearly distinguished between positive outlook/coping attempts and the benefits of season-ending injuries foreshadowing the trajectory of growth in sport. This distinction is revisited some two decades later when illusory versus constructive growth informed by the Janus-faced model of PTG (Maercker & Zoellner, 2004) was identified in a cohort of Olympic swimmers (chapter four). However, the more recent research included in this meta-synthesis has provided a more theoretically robust investigation of growth-related experiences of elite level athletes and a more reasoned rationale to the use of specific terminology used. Initially, the use of positive outcomes, positive benefits, and positive consequences were used as undefined constructs and the theoretical underpinning relied on theories of injury rehabilitation rather than theories of growth. With the new wave of studies

involving adversarial growth in elite athletes since 2013, researchers have been more specific about the terminology they have used and also in respect of the theories used to explain the processes of growth.

The meta-synthesis revealed a clear demarcation between the impact of the adversity, the positive coping that ensued, and the changes that were conceptualised as growth. The identification as this coping as being positive is important as Rumbold et al. (2012) identified coping as having both negative aspects and positive aspects (viz. avoidance coping and adaptive coping). There appeared to be little dissonance in the identification of differences between coping and real actual changes, however, the issue seems to be that the term *growth*, and the associated concepts (e.g., SRG, PTG) has been erroneously applied to any real or perceived positive outcome that is related to the adversity. The adversities involved emotional and cognitive traumatisation that is indicative of a shattering of schemas as described by Janoff-Bulman (1992) which is inherent in the models of growth that assume that people engage in a cognitive struggle to challenge their assumptive world following negative events. This indicates that the response to adversity in elite sport may be notionally comparable with other traumatic experiences identified in the trauma and oncology literature. This was identifiable in responses that replicated those found in the wider literature and involved, for example, isolation and withdrawal (e.g., Joseph & Linley, 2006), loneliness (e.g., Prigerson et al., 1999), and a loss of autonomy (e.g., Sumalla et al., 2009). The delineation between coping and growth is theoretically consistent with Tedeschi, Calhoun, and Cann's (2007) review of the theoretical and empirical considerations of PTG. They argued that growth can follow various trajectories including one which they refer to as being functional, that is provide coping strategies, and then later involve transformative changes which are indicative of schematic positive accommodation.

The theme entitled *Personally Transformative Changes* includes elements of the five domains that are identifiable in models of PTG (e.g., Joseph & Linley, 2005; Joseph et al., 2012; Tedeschi & Calhoun, 2004; Zoellner & Maercker, 2006a) namely, greater appreciation of life and changed sense of priorities; warmer, more intimate relationships with others; a greater sense of personal strength; recognition of new possibilities or paths for one's life; and spiritual development. Yet there are specific aspects of the growth experiences of elite athletes that are not widely found in the majority of adversity – related growth experiences literature, namely the body – self relationship, and superior performance. Interestingly, although in their review, Hefferon et al. (2009) concluded that PTG investigation needs address the individuality of each trauma situation, this current review suggests that it is not the trauma per se that requires

specific interest but a wider contextualisation that incorporates the identity aspects of the individuals concerned.

The theme body–self relationship is not aligned with any of the growth models, although the relevance of an increased awareness of the body was identified in a review by Hefferon et al. (2009) which synthesised the qualitative data on PTG and illness related trauma. They referred to an increased awareness of the body which has until now only been applied to illness, as being an additional domain that could be incorporated in Tedeschi and Calhoun's (2004) classification of the domains of growth. The fundamental importance of the body in the elite world of sport demonstrates the internalised belief that the body is integral to success. The body is an instrument to be honed and developed to become a precision tool; success is determined by whether the body performs to its potential. Although traditional and contemporary models of growth can go some way to explaining the growth experiences of elite athletes there is a requirement to acknowledge the additional embodied aspects of growth in this particular cohort.

Superior performance is an outcome that has not been reported in other growth areas (e.g., trauma, general psychology, and oncology) and therefore maybe confined to growth in elite athletes. In elite sport success is dependent upon sporting performance and it is likely that superior performance has such prevalence in this cohort as high level performance is an integral aspect of the narratives that elite athletes internalise. Not only does the shattering of schematic assumptions involve a threat to performance but many elements of growth involve an appreciation of what is important, an opening of possibilities, and a refocusing of priorities – these may intuitively involve the importance of their performance. If an athlete identifies sport as being important then it is a realistic assumption that performance elements are going to be apparent in the growth experiences. Nevertheless, it is possible that these findings are transferable to other high performance areas such as the performing arts, business, or vocation.

The meta–synthesis involved a robust and transparent process that involved detailed inclusion and exclusion criterion informed by the extant methodological literature (cf. Walsh & Downe, 2005). The inclusion of studies according to the participants' elite status was of particular importance, however, despite this, or indeed because of this, the ages ranged from 14 to 70 years providing a heterogeneous group of athletes from multiple sports. Although this review meets the critical criteria for advancing psychological theory (Klein & Zedeck, 2004), it cannot be claimed that the current meta–synthesis provides the definitive account of adversarial growth in elite sport, rather, it represents my interpretation of the research and given the current status of the literature this meta–synthesis provides the best identification of growth

in elite sport that currently exists. However, in time more specific meta-syntheses are required to amalgamate sport specific and/or adversity specific studies, this is necessary because specific sports exist within their own micro cultures (cf. Hanrahan, 2010) and there may be different issues associated with different sports.

In 2005, Walsh and Downe argued that “the future of qualitative meta-synthesis will . . . be decided by its acceptance by the proponents of the evidence-based practice agenda, and, ultimately, its utility for practice” (p. 210). Accordingly, although the present research has provided a more nuanced understanding of adversarial growth in elite sport this is only of value if it has an applied impact. The findings are of importance for coaches, athletes, and practitioners. Even though the identification of adversity as involving emotional and cognitive traumatisation may be intuitive, what is interesting about the synthesis of the studies is the wide range and varied emotional responses that were identified. Coaches and practitioners should be aware of the individual differences in response and note that whereas some athletes may respond with frustration and anger, others may respond through withdrawing from their social support networks. Irrespective of the individual responses it is imperative that the athletes are given access to an “empathetic expert companion” (Tedeschi & Calhoun, 2009, p. 215) when the athlete is ready to disclose. There was unanimity across the studies of the identification of heightened sport functioning following adversity. This knowledge is paradoxical in that adversity by its very definition is distressing and inherently negative. In an environment where success is measured by athletes’ performance, the ubiquitous identification of heightened sport functioning as a positive outcome could be utilised for performance outcomes, however, the negative impact of adversity needs to be balanced sensitively against the possible positive outcomes.

Part III

Discussion

CHAPTER VII

DISCUSSION

A head full of theories and a case full of data does not automatically result in high quality work

Tracy (2010, p. 841)

This chapter presents a summary of the research, and a discussion of the findings that have emerged from the four studies conducted as part of this doctoral thesis. This chapter will revisit the aim of the doctorate, discuss the theoretical implications, address a number of methodological issues, consider the applied implications, and suggest possible future directions. I start this chapter with the knowledge that the research is all but complete but, that in presenting it, it is necessary to be cognisant of the cautionary quote from Tracy above. Having carried out the data collection informed by the extant and wider literature it is important to ensure that the research is presented coherently, reflectively, and has a real impact on the wider academic and sporting communities which will make the research a worthy endeavour. Whilst each individual study has been evaluated in terms of the implications and limitations of the research and has been evaluated using method specific criteria, the resultant thesis will be, and indeed must be, greater than the sum of its parts, and that as a coherent body of work it needs to be evaluated not only in terms of the individual studies but as a whole. To discuss the findings, reflect on, and evaluate the research as a coherent body of work, I have drawn on Tracy's (2010) "big-tent" criteria for qualitative research (viz. worthy topic, rich rigor, sincerity, credibility, resonance, significant contribution, ethics, and meaningful coherence) to guide and negotiate this chapter.

In the years since the start of this doctoral study there has been a surge in interest from researchers in exploring the role that adversity has in contributing to psychological growth in the sporting domain. Although chapter two provided a rationale for researching adversarial growth in elite sport, at this juncture it is appropriate to reflect upon whether the resultant studies and their respective findings comprise a worthy topic, categorised by Tracy (2010) as being relevant, timely, significant, and interesting. The research in this thesis provides a relevant and timely contribution to this area that significantly advances the understanding of adversarial growth in elite sport in a manner that will be of significance to elite coaches and practitioners. The present research is timely in respect of adversity-related experience in elite swimmers in that during the duration of this study there have been a number of high-profile

and often sensational media reports about two of the Olympic champion swimmers who featured in the autobiography study (chapter three) and the recent adversities that they have experienced. In February 2014, the BBC reported that “five-time Olympic champion Ian Thorpe is being treated for depression after being found by Australian police behaving oddly near a car in Sydney” (BBC Sport, 2014). More recent newspaper reports have quoted the swimmer as stating: “I am just more comfortable in myself. I’m relaxed. I’m the same person. I guess I am probably more chilled with everyone”, and then reported that he hopes to return to competitive swimming: “I haven’t swam for more than a year now. It is a challenge. I’m working with the best surgeons in Australia to make that happen sooner rather than later” (Moran, 2014, n.p.). In September of the same year, Michael Phelps was arrested on his second driving-under-the-influence (DUI) charge. Three months later he was quoted as saying: “The last three months of my life have been some of the hardest times I’ve ever gone through, some of the biggest learning experiences I’ve ever had. I’m happy to be moving forward. I’ll continue to grow from this” (The Guardian, 2014, n.p.). The epistemological assumption is that any claims of truth are dependent on the available information, perceptions, and schemas that are available to individuals engaged in forming those assertions. This epistemological assumption is reflected in the acceptance of Ian Thorpe and Michael Phelps’ narratives of growth as being authentic and of importance in understanding growth despite, during the time of this doctoral research, both swimmers experiencing further significant adversity, critical media interest, and public humiliation. It may be argued that their additional adversities cast doubt on the assertion of their growth in chapter three, however, it is possible that periods of growth are followed by setbacks and downturns in a similar way to “thriving [which] can come and go in a person’s life” (Massey, Cameron, Ouellette, & Fine, 1998, p. 349). In order to evaluate any body of work as interesting, it has to be acknowledged that this requires an inherently subjective judgement to be made, but it is my hope that the research has explored areas that are thought-provoking and stimulating for the reader, and may provide a catalyst for further research.

Since Mahoney and Avenier (1977) found apparent differences in the reported anxiety patterns between Olympic gymnasts and those who did not qualify for the Olympic Games, there has been increased interest in the psychology of elite performance with many researchers identifying psychological differences between elite and non-elite athletes (e.g., Anderson, Hanrahan, & Mallet, 2014; Calmeiro, Tenenbaum & Eccles, 2014; Fletcher & Hanton, 2003; Mahoney, 1989). In addition to the perception that, for many athletes, the Olympic Games is the height of achievement (Gould & Maynard, 2009), and “one of the most challenging and

prestigious competitions one can encounter” (Pensgaard & Duda, 2002, p. 219), “mega-events” (Prayag, Hosany, Nunkoo, & Alders, 2013, p. 629) such as the Olympic Games attract a global audience and create lasting legacies for host nations. Therefore, it is not surprising that “many Olympic athletes and coaches are placing increased importance on using knowledge from the sport sciences to help prepare them for Olympic competition” (Gould & Maynard, 2009, p. 1393). Understanding the opportunities for growth following adversity in elite athletes has been largely under-researched and a lack of coherence and consensus in the existing literature presented a significant gap in the research that warranted further investigation.

The Aim of the Doctorate

The purpose of this research was to explore the phenomenon of adversarial growth in elite sport using elite swimming as the primary sport as a vehicle for consideration. Through the use of a qualitative approach, a number of studies that addressed a number of areas within this broad purpose were carried out:

1. An exploration of the adversity- and growth-related experiences of swimmers at the highest competitive level with a specific focus on the transitional processes that swimmers progress through to positively transform their experiences (chapter three).
2. An exploration of Olympic swimmers’ experiences of constructive and illusory growth (chapter four).
3. An exploration of whether coaches corroborate the growth experiences of elite level swimmers (chapter five).
4. An investigation into what the sport performance literature contributes to our understanding of the conceptualisation of adversarial growth in elite level athletes (chapter six).

Now, at the culmination of three years of research, I am hopeful that these aims have been achieved and that in the process the resultant work has provided a more nuanced perspective of adversarial growth in elite sport than previously existed, has contributed to both the wider and sport literature, and is *meaningful[ly] coherent* (Tracy, 2010).

Theoretical Implications

The study was informed by theoretical and empirical literature from two distinct academic areas, primarily, the PTG research in the trauma and oncology literature, and to a lesser extent, due to a dearth of sport performance studies exploring the positive outcomes of adversity, by the growth in sport literature. A review of the this literature in chapter two yielded a conceptual understanding of adversarial growth in elite sport that conceptualised growth as multidimensional in nature involving a temporal process that is characterised by both

assimilation and positive accommodation. Adversity was conceptualised as an event or experience that had the potential to shatter an elite athlete's assumptions about their identity, beliefs, and values (cf. Janoff-Bulman, 1992). In the studies reported in this thesis, the elite swimmers and coaches reported a range of adversities originating from personal, organizational, and competitive sources (viz. Fletcher, Hanton, & Mellalieu, 2006; Sarkar & Fletcher, 2014) which were appraised as being severe enough to trigger the growth process. These included, but were not restricted to, developmental stressors in chapter three (e.g., ADHD, speech impediment), illnesses in chapter four, and performance slumps and non-selection in chapter five.

In the aftermath of their experiences the elite swimmers referred to in chapters three, four, and five, and the elite athletes in chapter six encountered emotional and cognitive traumatisation which involved them facing a range of negative emotions that included anger, diminished pride, and frustration. These emotions are representative of the struggles that they were experiencing as they attempted to negotiate their adversity-related experiences and is consistent with Janoff-Bulman's (1992) assertion that people engage in a cognitive struggle to challenge their assumptive world following negative events. At this juncture it is important to highlight that the meta-synthesis (chapter six) recognised that some elite athletes were unable to identify any positive outcomes. This is an important finding as the notion of growth has so frequently been quoted by individuals in response to experiencing an unpleasant event that it has been subsumed into in our collective consciousness as a cultural script with few studies acknowledging or attempting to explain this alternative consequence. Other athletes reported behaviours (e.g., social and temporal comparison) that were reminiscent of illusory growth (Maercker & Zoellner, 2004, Zoellner & Maercker, 2006a) or coping strategies which in the short term had palliative effects.

In time, in accordance with the propositions of organismic valuing theory (OVT), the athletes attempted to assimilate or positively accommodate their experiences (Joseph & Linley, 2005). Those who successfully assimilated the adversity-related information via adherence to a cultural script or through the use of motivated illusions (Taylor, 1996) identified positive outcomes that can be more accurately conceptualised as being illustrative of illusory growth, coping, or perceived benefits. For some, despite these positive coping efforts, attempts to assimilate the adversity-related information into the athlete's world view failed as the adversity-related information was fundamentally inconsistent with their previously held views and/or identity. In these cases, when supported by an empathetic and knowledgeable social network and through engagement with cognitive processing, the athletes were able bring about

positive accommodation and experience constructive growth. To illustrate, in the IPA interview study involving Olympic swimmers reported in chapter four, Aaron supported by a sport psychologist cognitively processed his experiences of life-threatening illness and, over time, reported outcomes that are identified in Tedeschi and Calhoun's (1996) PTGI. Interestingly, throughout this doctoral research the elite swimmers and elite athletes also identified additional domains specifically, superior performance, action growth, and a greater awareness of the body.

The research is *theoretically significant* (Tracy, 2010) as it contributes to both the wider PTG literature, and the growth in sport literature in a manner that goes beyond the mere application of existing theory. The key implication of this research for the wider literature is the provision of a rationale for a de-emphasis on the term growth to refer to positive outcomes. In respect of the theoretical implications for elite competitive sport, the present research identified that: athletes perceive that there are positive outcomes from adversity which are interpreted as growth; there is a powerful cultural script that exists within elite sport that informs the response to adversity; there is a temporal aspect to growth; and there is evidence for an additional three domains that should be included in any evaluation of whether growth has occurred.

De-emphasis on growth terminology. In synthesising the four studies, the research contributes to the wider literature in respect of providing a rationale for the de-emphasis on the use of the term *growth* to refer to the positive outcomes of adversity. The wider growth literature is somewhat disjointed largely due to the diverse terminology used (see chapter two), and this has been reflected in the sport performance literature. The use of multiple terms to refer to the same concept is complicated further by the use of the word *growth* to refer to both the process of identifying positive outcomes from adversity and the specific outcomes (cf. Calhoun & Tedeschi, 2004). Although several models of growth have conceptualised growth as a process (i.e., FDM; Calhoun et al., 2010; Calhoun & Tedeschi, 1998; Tedeschi & Calhoun, 1995, Tedeschi & Calhoun, 2004; OVT; Joseph & Linley, 2005; ACPM; Joseph et al., 2012), the empirical research tends to measure growth as an outcome. This is particularly evident in the quantitative research which uses a variety of scales to measure whether “growth has occurred” (e.g., Butler, 2007, p. 376), but also in the qualitative research where growth has been interpreted and referred to as an “outcome” (e.g., Frazier & Kaler, 2006). This issue has already been raised in the extant literature by Linley and Joseph (2004) who questioned whether “adversarial growth simply a way of coping or [whether] it represent[s] an objective outcome” (p. 19), but it was apparent in the findings of the meta-synthesis (chapter six) that this issue has not been fully addressed by sport performance researchers in their empirical studies.

Across the four studies in this thesis it is evident that despite the pervasive use of the term *growth* there is a clear demarcation within the growth process between the impact of the adversity, the processes that follow, and transformational changes that are conceptualised as growth. The initial negative impact of adversities as being traumatic, distressing, involving a loss of autonomy, and entailing schematic disruption to identity (see chapter six) for elite athletes was perhaps unsurprising. However, it is pertinent to note that the findings across the studies suggest that whether an event is perceived as adverse in elite sport is not determined by whether that experience is “statistically associated with adjustment difficulties” (Luthar & Cicchetti, 2000 p. 858), but rather depended on the impact that the adversity had on the individual’s identity as an elite performer.

The processes (irrespective of whether they are termed as transitional processes [chapter three], illusory growth [chapters four and five], or as positive coping [chapter six]), that follow an individual’s attempts to negotiate the impact of the adversity are particularly interesting. The processes have been framed in the trauma literature in a number of ways, for example, as illusory growth (Maercker & Zoellner, 2004, Zoellner & Maercker, 2006a) which may represent an active coping element following adversity serving a short term palliative function involving self-enhancement cognitions, or alternatively they may represent coping involving cognitive avoidant strategies; as a distinct narrative (Pals & McAdam, 2004) that involves the open acknowledgement of the impact of the disequilibrating impact of the adversity whereby the cognitive processing of the event is critical; or as Calhoun and Tedeschi suggest as a “constellation of intrusive cognitive processes” (p. 97) that can involve adaptive mechanisms that successfully lead to a reduction of suffering and may involve repair (viz. assimilation) or accommodation of the individual’s assumptive world.

Despite inconsistent nomenclature, it is evident that the positive coping processes “can follow various trajectories, including ones where it may at first serve one function, but later involve personally transformative changes” (Tedeschi, Calhoun & Cann, 2007, p. 396). However, this is not the only possible outcome, with the findings from the present research indicating that some individuals remain in a state that is indicative of coping employing motivated illusions (cf. Taylor, 1983) that appear to provide adaptive aspects. This is illustrated in chapter four when, in utilising temporal comparisons, Katie explained “it was an exciting change because . . . you realise that swimming wasn’t that hard!” (p. 68). Transformational change may occur after positive coping efforts if, following a failure to assimilate trauma-related information into the individual’s world view, the individual engages in cognitive processing that brings about positive accommodation. However, it is also possible that if the

new information is assimilated then transformational changes may never occur; at this juncture the individual may continue to identify positive outcomes from the adversity that have not have involved any change in the individual's assumptive world, and may not have any further adverse impact on them.

The findings of the interview studies (chapters four and five) which questioned the veridicality of growth and the exploration of growth in elite sport (chapter six) suggest that the continued use of the term growth, which is still erroneously used to refer to any positive outcome associated with an adversity, is fundamental to the problem. This has perhaps hindered researchers in their exploration of the concept, and it is suggested that a re-conceptualisation of growth as being a dynamic process that involves a negative initial impact, [positive] coping with the aftermath of the adversity, and transformational change may be more useful. Adoption of such a conceptualisation in part would partially negate the need for discussions around the veridicality of growth (viz. Hobfoll et al., 2007), whether positive experiences framed as growth represent of genuine, and actual growth (viz. Frazier et al., 2009), and whether reports may be illustrative of adherence to a cultural script or alternatively, driven by illusions.

Elite competitive sport. This research has also offered new and unique understanding into athletes' adversarial growth in elite competitive sport. In synthesising the findings from the four studies it is apparent that: (1) the majority of positive aspects that are associated with adversity are interpreted as growth, (2) elite athletes conform to a cultural script of growth which is often manifested in the form of illusory growth or positive coping, (3) there is a temporal aspect to growth, and (4) there are specific aspects to constructive growth or transformational change that includes a change in actions, a new awareness of the body, and superior performance.

Interpretations of growth. Irrespective of whether adversarial growth is labelled as illusory or constructive, stress-related or posttraumatic, functional or action-focused, each term captures the presence of perceived positive consequences of adversarial-related experiences or events. In this research, the swimmers in the empirical studies and the athletes involved in the meta-synthesis encountered numerous events and experiences which were perceived by the participants, and in the researcher's interpretations of their narratives, as constituting adversity. In addition to the adversities experienced by the wider population, such as bereavement, relationship issues, and illness, the elite athletes were identified as being especially susceptible to sport-specific injuries (Chase, Caine, Goodwin, Whitehead, & Romanick, 2013; Kammer, Young, & Niedfeldt, 1999), organisational stressors (Didymus &

Fletcher, 2012), and weight and body image concerns potentially resulting in disordered eating (McMahon & Penney, 2010). The majority of these adversities were encapsulated in the research and can be broadly characterised as developmental stressors, external stressors, embodied states, psychological states, and externalised behaviours (see chapter three) which threatened their identities as world class performers. Irrespective of the type of adversity experienced, the authors of the autobiographies, the swimmers and the swimming coaches in the interview studies, and the participants in the meta-synthesis of the qualitative literature were all able to identify positive outcomes from their experiences. These positive outcomes were evident following a struggle to deal with the aftermath of the shattering of schema (cf. Janoff-Bulman, 1992) that will have entailed either assimilation or accommodation (cf. Payne, Joseph, & Tudway, 2007) of the trauma-related information. The former, assimilation, involved the maintenance of the individual's world view particularly as it related to elite sport, and the latter, (positive) accommodation, involved a fundamental change in this world view, and accordingly, it can be identified that there are two distinct outcomes or trajectories of this perceived growth. Given the academic community's lack of consensus about what constitutes growth, it is unsurprising, especially in light of conformity to a cultural script, that the participants interpreted these positive outcomes as being indicative of growth.

A cultural script. The narratives, sometimes referred to as cultural scripts, that circulate in society and are evident in the wider population in general and in elite sport specifically, inform athletes of how to make sense of their experiences, beliefs, and values. A cultural script of how elite athletes negotiate adversity which resonates with Frank's (1995) quest narrative was evident across the four studies in the voices of athletes, swimmers, and coaches. The script comprises the message that adversity in elite sport is distressing and can provide a clear and present threat to athletes' identities. To defend against the negative impact that the adversity may have on the individual, elite athletes actively engage in a process of identifying the positives that have emerged from the experience. These positives may or may not involve transformational life changes (viz. constructive vs illusory growth). As well as providing evidence to the existence and pervasiveness of this script, it was apparent from the narrative analysis of autobiographies of Olympic Champion swimmers (chapter three) that the published autobiographies provided a visible articulated promulgation of this script to the next population of elite athletes.

The presence of this cultural script may indicate that some reports of growth are indicative of positive coping or illusory growth with the traumatic experience following assimilation (as opposed to positive accommodation) of the trauma-related information.

Indeed, aspects of conforming to this cultural script in contrast to evidence of transformational change were apparent in the second study (chapter four) which involved the self-reports of growth in elite swimmers. In her interview, Jessica in particular, identified that she had “grown”, yet there was little evidence of any transformational identity changes. The coaches interviewed in study three (chapter five) were able to identify that the swimmers had exhibited positive outcomes from the adversities that were characteristic of the internalisation of a cultural script that posits that positives are an expected and normal outcome of negative events without demonstrating actual changes. The final study extended the findings from swimming into elite sport in the identification of adherence to a number of different narratives to ensure coping success.

Temporal aspects to growth. In the first study (chapter three) it was identified that several researchers (Galli & Reel, 2012a; Tamminen et al., 2013), had recognised the need to examine the temporal aspects of growth over a longer period of time. This important as Park and Helgeson (2006) found that more robust indicators of growth were identifiable when at least two years had passed since traumatic event. However, research investigating the temporal course of growth is scarce (Dekel, Ein-Dor & Solomon, 2012) with the few longitudinal studies that have been carried out lasting less than one year (e.g., Frazier et al., 2009) which may not be enough to determine the pervasiveness of growth over time. The present research has endeavoured to explore some of the temporal elements through analysis of autobiographies and the use of timelines. What emerged as particularly interesting in the studies was the role of retirement and it appears that temporal aspects to growth that may not be associated with time from the occurrence of the adversity but rather retirement from sport. In the first two studies (chapters three and four) retirement was identifiable as part of a transitional process that involved a distancing from the adverse events which allowed a broadening of experiences and facilitated the realisation of [constructive] growth. This is partially in contrast to recent research that explored the retirement and transition difficulties of two Olympic champion swimmers through an analysis of Australian newsprint media (Cosh, Crabb, & Tully, 2015). One of those swimmers was Ian Thorpe, whose autobiography was included in the analysis of autobiographies in chapter three. Interestingly, in their review of the associated literature, the authors identified the numerous studies that have highlighted the negative aspects of retirement which included decreased self-esteem and self-worth associated with their changing bodies and anxiety due to a lack of career certainty (e.g., Lavalley & Robinson, 2007). Cosh et al. (2015) reinforced this with their assertion that both swimmers “struggled for several years into retirement” (p. 34). This is at odds with the findings of the studies in chapters three and four

which found that retirement provided an opportunity for reflection and that for the Olympic champions the comeback “signified a shift towards a quest narrative and a change in life philosophy” (p. 42). In this respect in respecting the authenticity of the swimmers’ accounts the present research has drawn on Thorpe’s own story as opposed to Cosh and colleagues’ who have interpreted the Olympic champion’s experience of retirement through the analysis of reports that were potentially subject to a sensationalised media lens.

Additional domains. Irrespective of the issues of terminology, this doctorate lends support to Tedeschi and Calhoun’s (2004) identification of five domains of PTG, although at this juncture, it may be more appropriate to refer to these domains as indicators of transformational change. They are: greater appreciation of life and changed sense of priorities; warmer, more intimate relationships with others; a greater sense of personal strength; recognition of new possibilities or paths for one’s life; and spiritual development. However, it is apparent that there are specific aspects of the growth experiences of elite athletes that are not widely found in the majority of adversity – related growth experiences literature. Throughout the research there was evidence for the inclusion of action–growth or “behavioural indicators” (cf. Shakespeare–Finch & Barrington, 2012) as a criterion of growth. Furthermore, the meta–synthesis (chapter six) identified considerable evidence for two additional domains, namely the body – self relationship, and superior performance.

The present research identified indicators of real life change which were represented by prosocial behaviour (chapters three and six) and in behavioural actions (chapter four). Although constructive growth was identified in finding meaning (chapter four), a failure to translate this into action fails to appreciate a key aspect of Frankl’s (2006) premise that benefits occur “not in talk and meditation, but in right action and in right conduct” (p. 77). Furthermore, the commonly cited models of growth (e.g., OVT; Joseph & Linley, 2005; ACPM; Joseph, Murphy, & Regel, 2012; FDM; Calhoun, Cann, & Tedeschi, 2010; Calhoun & Tedeschi, 1998; Tedeschi & Calhoun, 1995, Tedeschi & Calhoun, 2004) tend towards a myopic focus on the cognitive and emotional aspects of the growth process. Although constructive growth may be identifiable through the evidence of specific domains, Frazier and Kaler (2006) identified that individuals who reported being more empathetic as a result of their experiences were no more likely to help others. Accordingly, this present research suggests a need for the development of a model of growth that incorporates action or behavioural indicators as evidence of transformational change.

The importance of the body was foreshadowed in the first study (chapter three) where the focus of the Olympic champions’ narratives was often on the performance and aesthetic

meanings of their bodies and it was perceived that this was a noteworthy aspect of their stories. The importance of the body is a pervasive theme throughout the research given that the athletes' superior performances were largely attributable to the efficient functioning of the body, and a breakdown of that functioning as a result of injury, illness, disordered eating, or performance slumps resulted in threatened and shattered identities. An increased awareness in the fragility, performance, or aesthetics of the body was perceived as a positive outcome of negotiating adversity. The potential inclusion of this as an additional domain is consistent with the findings of Hefferon et al. (2009) who referred to an increased awareness of the body, however, they argued that this domain may only be applicable in the context of illness. On the contrary, rather than being important in respect of the type of adversity, this present research suggests that the body – self relationship is more concerned with the contextualisation of the adversity and whether the body is an important characteristic of the individual's identity, and thus it certainly warrants inclusion in the sport performance literature.

Also prevalent in this body of work was evidence of superior performance following the negotiation of adversity, which was a common and persistent theme throughout the studies. A number of the swimmers and swimming coaches in the interview studies, and the participants in the meta-synthesis, explicitly commented on this positive outcome and collectively their narratives and accounts of adversarial growth resonate as an important aspect of the transformational changes observed. In chapter three, Tewksbury reflected that homophobic graffiti on his school locker: “sent me on a path that brought me to the height of Olympic sport, to being an advocate for human rights, to becoming who I am today” (p. 41). In chapter four, Aaron commented on the impact that psychological support had not only on his ability to cope but to transform him: “I would never have got into the Olympic Games, never have become the swimmer I was . . . if it weren't for the significant changes I . . . went through” (p. 72). In chapter five, a coach commented: “She was good before, but nowhere near this level. She is much faster . . . her world ranking is higher than she was before. It made her the swimmer that she is today” (p. 95). And finally, in the meta-synthesis (chapter six) all of the studies ($N = 10$) synthesised identified an element of superior performance as being outcome of adversity or trauma. This finding alone provides significant support for the provision of a superior performance domain being added to any model of growth.

Methodological Implications

In the presentation of this thesis it is important to reflect on the research process with particular reference to the qualitative methodology, issues of transparency, and the noteworthy challenges that I had to face throughout the research, specifically, the impact of the research

on me as a researcher and particular ethical issues.

Methodology. This research was underpinned by a constructivist paradigm which acknowledges that there is no objective truth or absolute reality, assumes changing and sometimes conflicting social realities, and seeks to understand constructions of lived experiences (Guba & Lincoln, 2005). Accordingly, it was appropriate that the research was carried out using a qualitative methodology, incorporating a range of methods and analyses. The research involved an analysis of autobiographies informed by the narrative tradition through adopting a holistic approach involving both the form of the narrative and the content of the events and meanings (Lieblich et al., 1998); an IPA (Smith et al., 2009) of semi-structured interviews and timelines (cf. Sheridan, Chamberlain, & Dupuis, 2011); a qualitative content analysis (Schreier, 2012) of coaches' interpretations of swimmers' experiences of adversarial growth; and a meta-synthesis of growth in elite sport.

The aim of research as a whole was not to ascertain the truth about experiences of adversity and growth but to understand the notion of adversarial growth through access to the stories that individuals have constructed and reconstructed about *their experiences* through an analysis of their autobiographies, their spoken accounts, and through the alternative or corroborative voices of the athletes' social networks. Therefore, given the underpinning paradigm and the adoption of a qualitative methodology, the notion of trustworthiness was a more legitimate criterion to address than ideas of truth (cf. Whaley & Krane, 2011). Trustworthiness (along with verisimilitude and plausibility) is captured by the concept of *credibility* (Tracy, 2010) which can be partially achieved through the use of triangulation or crystallisation in research. It could be argued that triangulation is more congruent with a realist rather than a constructivist paradigm. However, as Tracy argued "different methods, data, or researchers often do (and perhaps should) yield different results" (p. 843), and that triangulation can be valuable irrespective of the paradigm underpinning the research. In this thesis, triangulation is evident in the use of different methods (e.g., autobiographical research, semi-structured interviews), and the use of the alternative perceptions about adversarial growth sought from elite swimming coaches. The coaches interviewed in chapter five do not provide verification of the swimmers' experiences but provide another voice, clarification, and sometimes an alternative explanation of the growth experiences of swimmers. Crystallisation relates to the practice of using multiple data sources, data analyses, researchers, and lenses and encourages researchers to gather multiple types of data and employ various methods (even from different theoretical paradigms), multiple researchers, and numerous theoretical frameworks. Accordingly, the use of multiple data sources (i.e., autobiographies, Olympic

swimmers, coaches, published research), different theoretical models (i.e., the ACPM, the two-component model), different methods (i.e., autobiographical research, semi-structured interviews, meta-synthesis), different analyses across the studies (i.e., narrative analysis, IPA, qualitative content analysis, translation synthesis), and the use of coaches' interpretations about whether swimmers experience growth, did not provide a more valid "truth" but has allowed different aspects of adversarial growth to be explored. This crystallisation has increased the scope of the concept, deepened understanding, and encouraged a more dependable interpretation of the topic area.

Transparency. Within the constructivist paradigm, the researcher is an active instrument in the process, therefore it is imperative that the role of the researcher is evident in the research process. Throughout the research I have attempted to be transparent about my own role in the research and in the written presentation of the individual studies. I commenced the research with a good knowledge of the context of the sport and am familiar with the competitive swimming community, nomenclature, and culture. This awareness, which allowed me to be an emic of the culture, had both positive and negative elements associated with it. From the outset my interest and passion for swimming ensured a familiarity with the terminology used and an acquaintance with the peculiar intricacies and demands of the sport. This knowledge was useful in building rapport with participants and allowed an empathetic approach in dealing with the swimmers and their descriptions about their swimming experiences. However, there were also negative aspects to this knowledge. To illustrate, from my own experiences I was aware of the procedures and the rationale behind practices such as weigh-ins and this informed my understanding in reading the autobiographies in chapter three. However, I also was aware of the impact that these practices had, and continue to have, on female swimmers in particular (see McMahon & Dinan-Thompson, 2011), and this may have impacted on my interpretations of the swimmers' experiences. Furthermore, given my interest in the sport over the years, I began the research with some limited knowledge about the participants' experiences, although none of them were known to me personally.

In the presentation of the interview studies in chapters four and five, ensuring *rich rigour* (Tracy, 2010) was important. The reader has been provided with sufficient depth of information about the interviews including the number and length of interviews, the types of questions asked, and the resultant number of pages of interview transcripts. This is in addition to the depth of detail provided about the processes, the data collected, and the provision of copies of the information sheets, consent forms, and interview guides used. Additionally, in each of the studies and throughout the thesis, I have been transparent about my subjective

values, biases, and inclinations, and identified the research challenges thus striving for *sincerity* (Tracy, 2010) in the process. To ensure *reflexivity*, I have engaged in reflection about my experiences; this has involved the documentation of observations as part of a reflective diary and contemplative interactions with my supervisor and critical friends. These reflections involved aspects of my own experiences and the reflections on theoretical aspects of the phenomenon of adversarial growth.

The impact on the researcher. Throughout the research there were a number of challenges that required an acknowledgement of the transactional nature of research and the impact that it has on me as a researcher. Although the major challenge experienced in the early stages of the research was one that was both unremarkable and to be expected, the difficulties in accessing participants impacted on my belief about the viability of the research and the enjoyment in the process. Despite the commonality of this as a challenge in the research process, its impact was significant. With each email and phone call that was ignored I found myself doubting my abilities and the focus of the research. This experience in part influenced the direction of the research and a research proposal involving a second wave analysis of the autobiographies had to be rejected due to difficulties accessing an appropriate cohort of participants. A comment from my supervisor triggered reflection on the impact that the research was having on me, as the researcher. The comment, in reference to the IPA study detailed in chapter four about the extent of disclosure exhibited by the participants, made me reflect probably for the first time, that I had been affected by the experiences that had been disclosed to me and that I had not really addressed my own feelings after the interviews or during the transcription process. This resonates with Walls, Parahoo, Fleming, and McCaughan's (2010) assertion that research that intrudes into private spheres can be potentially distressing and emotive for the researcher. In response to these two challenges in particular, I engaged in more in-depth reflection by keeping a hand written reflective account of meetings, interviews, and pertinent aspects of the research process.

Ethics. Two dimensions of ethics were identifiable in this research, procedural ethics and "ethics in practice" (Guillemin & Gillam, 2004, p. 261); the former was relatively unproblematic, but the second constituted an important research challenge. In respect of the procedures required, ethical approval for each of the studies involving human participants was obtained from Loughborough University's ethics committee, information sheets and consent forms can be found in Appendices one and two. These documents explained: the purpose of the research and why it was being conducted; details of what participation would involve; how confidentiality would be maintained; and how the findings would be used afterwards. In the

promulgation of the research studies pseudonyms were chosen for each participant to ensure anonymity. Specific details discussed by participants which could lead to their identification was also removed from the data. The exception to this was in the study reported in chapter four. During the process of member checking, one of the participants explained that certain details of his adversities were well known in the competitive swimming community as being associated with him. Even with the use of pseudonyms he acknowledged that he was probably identifiable, but he expressed (in written communication) that he did not want the details removed and that he waived this right to anonymity. Audio recordings and transcription files were stored safely and securely in password protected computer folders.

Not surprisingly, “ethics in practice” posed a more challenging aspect of the research process as Guillemin and Gillam (2004) argued that “the responsibility for ethical conduct falls, as it must, on the researcher and not on the research ethics committee” (p. 269). What was initially identified as a perhaps unique ethical dilemma was recognised in my reflections on the first study presented in chapter three. The autobiographies analysed in the study were written for public consumption and provided the raw data for the research, however, the private meanings interpreted during the analysis maybe beyond the scope of the disclosure intended by the authors (Harrison & Lyon, 1993). This issue was raised in chapter three but beyond the presentation of that particular study, it is evident that this may apply to any analyses that go beyond description into interpretation. This was an important observation as I reflected on my qualitative approach. In the second study presented in chapter four, having engaged in the “double hermeneutic” nature of IPA I am cognisant that despite the interpretations of one swimmer as: “having grown”, I interpreted that based on the theoretical literature, she they had not *actually* grown but was, on the contrary, demonstrating motivated illusions. I pondered whether this was indicative of adopting a position that may comprise “‘a hermeneutics of suspicion’, problematising the participants’ narratives and decoding meaning beyond that intended by the participants” (Josselson, 2004, p. 1). However, on deeper reflection, it can be acknowledged that as part of the process of IPA, a central position which allowed both an empathetic stance and one that involved questioning that had resulted in interpretations that possibly went beyond that intended by the participants was appropriate; Smith et al. (2009) refer to this as simply “understanding” (p. 36). To ensure an explicit appreciation of the participants’ own interpretations of their experiences, it was important that the swimmers’ words were presented verbatim to remain faithful to their accounts, and that the authenticity of their interpretations were not questioned.

Finally, in respect of ethical challenges, the final participant in the third study presented

in chapter five withdrew his consent within 24 hours of the interview taking place; in a personal email correspondence he explained that he had reflected on the interview:

I am feeling somewhat uncomfortable with it. I feel it was a bit too intrusive, I divulged too much information of a personal, private, confidential nature which could be disrespectful to the swimmers involved and could reflect negatively on the programme as a whole.

Drawing on his own ethical and moral integrity, he felt that he had broken his own bounds of confidentiality in discussing his swimmers' experiences without their permission. Accordingly, he withdrew his consent. I was embarrassed, upset, and concerned that this may impact on my relationship with him given the involvement that I had in my applied sport psychology and coaching roles. I focused on, and ruminated over the use of the word "intrusive" and deliberated whether I had been at fault in the interview. However, I came to identify his behaviour as reflective of his professionalism, integrity, and respect for his swimmers rather than being indicative of any of my behaviours or a reflection on my research. However, this experience led me question on a wider scale, whether my research was too intrusive and ultimately accepted that the research was potentially "sensitive" (Dickson–Swift, James, & Liamputtong, 2008, p. 1), and that given the nature of the topic, the content of the questions asked comprised either an "intrusive threat . . . [or the information] revealed [may be] stigmatising or incriminating in some way" (Lee, 1993, p. 4). As the final participant of the final participant–based study at a personal level, I was not able to use this knowledge to inform my behaviour in this research, however, this aspect is one that researchers need to be aware of.

Applied Implications

Klein and Zedek (2004) posited that "good theory, at least in applied psychology, has practical implications" (p. 933). My own beliefs are that it is important that my research has impact in respect of transference of knowledge to applied practice, and that the doctoral process, which has involved the participation of athletes who have given their time to discuss issues that have been inherently difficult for them, is not reduced to a bound thesis gathering dust on a shelf. Understanding adversarial growth in the elite sporting context has implications for athletes, coaches, and practitioners working in competitive environment. Theoretically, this research has moved the understanding of growth to one which there is a clear demarcation within the growth process between the impact of the adversity, the processes that follow, and transformational changes that were conceptualised as growth. This is important for practitioners in facilitating the course of growth in elite athletes because the implications are

fundamentally different dependent upon which stage in the process the athlete is currently in. Irrespective of the stage an athlete may be at, it is likely that they may be reporting that they have grown or have identified the presence of positive outcomes.

The implications of this research are both general and specific. In general terms it is my belief that this research has *resonance* (Tracy, 2010) which has been partially achieved through generalisability/transferability. Generalisation is not often associated with qualitative research but Tracy argued for qualitative researchers to seek resonance not through generalisation across cases but to allow the reader to become immersed in the details of the narratives and encourage readers to vicariously recognise and reflect on their experiences. This is particularly salient in this body of research as it encourages both swimmers and coaches to reflect on the role of adversity and, more importantly, the strategies that are used to negotiate the experience. To widen the scope of access beyond the academic community I have written an article based on the study in chapter three that is accessible to the wider swimming community (appendix three). In this way, the research achieves resonance across various populations. At a more specific level, throughout this thesis, there has been discussion of the applied implications of the specific findings of each study. However, an overall discussion of the meaningful contribution that this thesis as a coherent and complete body of work contributes to applied practice within elite competitive swimming. Unsurprisingly, given the evidence from the general psychology and trauma literature (cf. Prati & Pietrantonio, 2009) social support was an important aspect in the swimmers' perceptions of growth, firstly, in that adversities are characterised by a perceived lack of support, but also that it is support from sport psychologists, families, and coaches that provide an environment that is conducive to constructive growth. Indeed, in the second study (chapter four) the findings indicate that sport psychology support was perceived as beneficial in negotiating adversities and experiencing growth. Coaches and family members should be cognisant of this continuum of perceived support and ensure that support is available at the time of the adversity and given the temporal aspects of growth, be in a position to provide support in the months and potentially years following the adversity.

Implications for coaches. Given the length of time that coaches spend with elite athletes in general and elite swimmers in particular, coaches should be mindful of the role that they have in facilitating the successful negotiation of adversities. This is at three levels, the first involving the development of the adversity itself, the second involving knowledge, and the third involving action. The first two studies (chapter three and four) highlighted those adversities that, if not caused but the coach, were indicative of the micro culture of elite sport. The elite environment demands adherence to normative social practices which can create a

“climate of fear” (Lang, 2010, p. 29) that may be a catalyst for the development of some adversities. For example, body image, disordered eating, and a deleterious coach–athlete relationship were all identified as being part of the culture of elite sport and one in which the coach on occasions may inadvertently played an active role. At a more complex level, in accordance with Collins and MacNamara’s (2012) assertions that talent needs trauma some swimmers identified the motivational aspects of adversity (see chapter three) and it may be that coaches who have identified the positive aspects of growth may consider the imposition of challenges or difficulties to foster positive change, particularly in respect of superior performance. Coaches therefore need to maintain a reflective outlook that constantly reviews the consequence of their behaviours to avoid becoming an active agent in an (inappropriate) adversity.

In respect of the essential knowledge required in assisting athletes, coaches should be aware of dominance of avoidance strategies in the initial stages following an adversity. It is important to recognise that elite athletes may initially engage in a process of denial and attempt to protect their identities and self–esteem by engaging with maladaptive and avoidant coping strategies. Understanding this initial process can better prepare coaches to facilitate transformational change in a professional and supportive environment. Coaches should be mindful of the differences between those outcomes that are representative of perceived benefits, illusory growth, or positive coping and those that are representative of constructive growth or transformational change. Furthermore, coaches should also be aware of the role that they play in the collaboratively identifying positive outcomes from adversities and be cognisant that they may become active agents in replicating a cultural script that encourages the identification of perceived benefits rather than facilitating a more fundamental transformation in the form of constructive growth. In terms of taking action, given the collaborative and often shared experience of adversity for athletes and coaches, it is to be expected that some coaches may engage in denial and this may involve them refraining from proactive engagement with the athlete experiencing adversity. In this instance, and especially in light of the positive views that Olympic swimmers (see chapter four) have of sport psychologists, coaches should ensure that there is the availability of sport psychology support when possible.

Implications for practitioners. The presence of aspects of both illusory and functional growth (or positive coping and transformational change) in this study has significant implications for practitioners in facilitating the course of growth in elite athletes. It is important that practitioners recognise whether the athletes are adhering to a cultural script, creating motivated illusions, or alternatively making actual changes at cognitive, emotional, and

behavioural levels as this can have consequences on the types of support provided. Despite Joseph and Linley's (2006) emphasis that one of the roles of a psychologist is to help alleviate distress, a failure to distinguish between the two aspects of the growth process may result in the development of coping strategies that are aligned with illusory growth (or coping) rather than facilitating transformational change. Accounts of positive benefits as a consequence of adversity may reflect distorted or motivated illusions that comprise coping strategies rather than veridical change. Even though an individual may claim to have overcome an adversity they may still be experiencing denial, assimilating a positive bias, or making downward comparisons with others. Accordingly it is advocated that that practitioners adhere to "professional abstinence from a use of naive use of positive thinking" (Zoellner & Maercker, 2006a, p. 650) as supporting the individual in finding meaning may be more productive than focusing on the assuagement of distress. However, Tedeschi and Calhoun (2009) identified that from a clinician's perspective it does not matter whether growth has actually occurred or whether the individual is identifying perceived benefits. If an individual believes they have grown and have successfully negotiated the experience even if it is indicative of motivated illusions (cf. Taylor, 1983), then empirical consideration by academics who may claim otherwise may be perceived as arrogant, this is especially the case as it can be argued that all accounts are subjective and socially constructed.

Future Directions

In light of a paucity of research that has investigated adversarial growth in elite sport, this present research has identified a number of future directions. Whilst this research has contributed to the increasing body of evidence that growth occurs following instances of significant adversity, future researchers investigating adversity and growth in sport could consider more sophisticated operationalisations of adversity. Although adversities were typically distressing for elite athletes and were characterised by a loss of autonomy and a threat to identity, the research did not distinguish between the impact of acute (e.g., non-selection) and chronic stressors (e.g., asthma) which warrants further exploration especially given that acute adversities tend to have an external sources, whereas chronic adversities tend to have an internal source (Sumalla et al., 2009). Furthermore, during interviews with elite swimming coaches in chapter five, it was noted that several swimmers experienced multiple and cumulative adversities, the growth experiences of a single discrete adversity could be compared with that of multiple cumulative adversities.

Tracy (2010) stressed the importance of any topic of research being worthy; in a consumerist culture that increasingly devours celebrity memoirs, the autobiographies that were

analysed in the first study (chapter three) may potentially have conformed to a sensationalist script that comprise a narrative map which may be internalised by a generation of potential Olympic level athletes. Although the study involved an analysis of the autobiographies of Olympic champion swimmers, an important step in the continued interaction of the narrative within the wider setting (Koven, 2012) was neglected in the research. The relationship between the author and the reader goes beyond the telling of a story (Shuman, 2012), as it is as much for others as it is for one's own regeneration (Frank, 1995). Further, it is important to question whether this impact can bring about positive change for the next elite population of swimmers. A second-wave analysis (Georgakopoulou, 2006) involving elite swimmers reading and then discussing aspects of the autobiographies in a focus group would be desirable.

During the interviews for the IPA study, several of the participants alluded to the impact that their experiences had on significant others, and in the content analysis study, the coaches acknowledged the impact that the swimmers' experiences had had upon them. The phenomena of vicarious growth (Linley et al., 2003) is becoming an increasingly researched topic in the wider literature with a recent meta-synthesis identifying 20 research studies that have examined the impact that trauma work has on those who are working with traumatised clients (Cohen & Collens, 2013). The authors found that for vicarious growth to occur, trauma workers need to be exposed to their client's own growth. Other areas that have explored vicarious growth include exposure to terrorism (e.g., Val & Linley, 2006), the partners of cancer sufferers (e.g., Thornton & Perez, 2006) and being a spouse of a Vietnam Veteran (McCormack, Hagger & Joseph, 2011). However, this is an area that is widely under researched by scholars interested in the psychology of sport, with Day and colleagues' studies of the impact of witnessing a traumatic injury of an athlete (Day, Bond, & Smith, 2013; Day & Schubert, 2012) being the only studies that have explored vicarious growth in the sport domain, accordingly, this warrants further investigation.

Concluding Remarks

This present research has extended the extant sport psychology literature that has addressed the phenomena of growth. Through adoption of a critical stance, this line of research inquiry has important theoretical and practical implications for the field of sport psychology and the support of athletes' performance and well-being. Tracy (2010) argued that *resonance* can be partially achieved through aesthetic merit and it is my hope that I have presented this research in an engaging and articulate manner that has provided the reader insight into the experiences of elite sport in general and competitive swimming in particular. It is my hope that you have enjoyed reading it as much as I have enjoyed the process.

References

- Abraído-Lanza, A. F., Guier, C., & Colón, R. M. (1998). Psychological thriving among Latinas with chronic illness. *Journal of Social Issues, 54*(2), 405–424. doi: 10.1111/j.1540-4560.1998.tb01227.x
- Affleck, G., Tennen, H., Croog, S., & Levine, S. (1987). Causal attribution, perceived benefits, and morbidity after a heart attack: An 8-year study. *Journal of Consulting and Clinical Psychology, 55*(1), 29–35. doi: 10.1037//0022-006X.55.1.29
- Albert, S. (1977). Temporal comparison theory. *Psychological Review, 84*(6), 485–503. doi:10.1037/0033-295X.84.6.485
- Alicke, M. D., & Sedikides, C. (2009). Self-enhancement and self-protection: What they are and what they do. *European Review of Social Psychology, 20*(1), 1–48. doi: 10.1080/10463280802613866
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders: DSM-5*. Washington, D.C: American Psychiatric Association.
- Anderson, R., Hanrahan, S. J., & Mallett, C. J. (2014). Investigating the Optimal Psychological State for Peak Performance in Australian Elite Athletes. *Journal of Applied Sport Psychology, 26*(3), 318–333. doi: 10.1080/10413200.2014.885915
- Arpawong, T. E., Richeimer, S. H., Weinstein, F., Elghamrawy, A., & Milam, J. E. (2013). Posttraumatic growth, quality of life, and treatment symptoms among cancer chemotherapy outpatients. *Health Psychology, 32*(4), 397–408. doi:10.1037/a0028223
- Atkins, S., Lewin, S., Smith, H., Engel, M., Fretheim, A., & Volmink, J. (2008). Conducting a meta-ethnography of qualitative literature: Lessons learnt. *BMC Medical Research Methodology, 8*(21) 1–10. doi:10.1186/1471-2288-8-21
- Aspinwall, L. G., & Tedeschi, R. G. (2010). Of babies and bathwater: A reply to Coyne and Tennen's views on positive psychology and health. *Annals of Behavioral Medicine, 39*(1), 27–34. doi:10.1007/s12160-010-9155-y
- Auerhahn, N. C., Laub, D., & Peskin, H. (1993). Psychotherapy with Holocaust survivors. *Psychotherapy: Theory, research, practice, training, 30*(3), 434– 442. doi: 10.1037/0033-3204.30.3.434
- Bakhtin, M. (1981). *The dialogic imagination: Four essays by M. M. Bakhtin* (C. Emerson & M. Holquist, Trans.). Austin, TX: University of Texas Press.
- Baillie, S. E., Sellwood, W., & Wisely, J. A. (2014). Post-traumatic growth in adults following a burn. *Burns, 40*(6), 1089–1096. doi:10.1016/j.burns.2014.04.007
- BBC Sport. (2014, February 3). Ian Thorpe: Olympic swimming legend in rehab after police

- called. Retrieved from <http://www.bbc.co.uk/sport/0/swimming/26015732>
- Beard, A., & Paley, R. (2012). *In the water they can't see you cry: A memoir*. New York, NY: Touchstone.
- Best, M., Streisand, R., Catania, L., & Kazak, A. E. (2001). Parental distress during pediatric leukemia and posttraumatic stress symptoms (PTSS) after treatment ends. *Journal of Pediatric Psychology, 26*(5), 299–307. doi:10.1093/jpepsy/26.5.299
- Bjorck, J. P., & Byron, K. J. (2014). Does stress-related growth involve constructive changes in coping intentions? *Journal of Positive Psychology, 9*(2), 97–107. doi:10.1080/17439760.2013.858273
- Brewer, B. W. (1993). Self-identity and specific vulnerability to depressed mood. *Journal of Personality, 61*(3), 343–364. doi:10.1111/1467-6494.ep9402021311
- Brewer, B. W., Van Raalte, J., & Linder, D. E. (1993). Athletic identity: Hercules' muscles or Achilles' heel. *International Journal of Sport Psychology, 24*. 237-254.
- Brocki, J. M., & Wearden, A. J. (2006). A critical evaluation of the use of interpretative phenomenological analysis (IPA) in health psychology. *Psychology & Health, 21*(1), 87–108. doi:10.1080/14768320500230185
- Burke, S. M., & Sparkes, A. C. (2009). Cognitive dissonance and the role of self in high altitude mountaineering: An analysis of six published autobiographies. *Life Writing, 6*(3), 329–347. doi: 10.1080/14484520903082942
- Bucci, J., Bloom, G. A., Loughhead, T. M., & Caron, J. G. (2012). Ice hockey coaches' perceptions of athlete leadership. *Journal of Applied Sport Psychology, 24*(3), 243–259. doi: 10.1080/10413200.2011.636416
- Bush, N. E., Skopp, N. A., McCann, R., & Luxton, D. D. (2011). Posttraumatic growth as protection against suicidal ideation after deployment and combat exposure. *Military Medicine, 176*(11), 1215–1222. doi: 10.7205/MILMED-D-11-00018
- Butler, L. D. (2007). Growing pains: Commentary on the field of posttraumatic growth and Hobfoll and colleagues' recent contributions to it. *Applied Psychology, 56*(3), 367–378. doi: 10.1111/j.1464-0597.2007.00293.x
- Butryn, T., & Masucci, M. (2003). It's not about the book: A cyberborg counternarrative of Lance Armstrong. *Journal of Sport and Social Issues, 27*(2), 124–144. doi: 10.1177/0193732503252176
- Calhoun, L. G., Cann, A., & Tedeschi, R. G. (2010). The posttraumatic growth model: Sociocultural considerations. In T. Weiss, & R. Berger (Eds.), *Posttraumatic growth and culturally competent practice: Lessons learned from around the globe* (pp. 1–14)

- Hoboken, NJ: Wiley Online Library. doi: 10.1002/9781118270028.ch1
- Calhoun, L. G., & Tedeschi, R. G. (1998). Posttraumatic growth: Future directions. In R. G. Tedeschi, C. L. Park, & L. G. Calhoun (Eds.), *Posttraumatic growth: Theory and research on change in the aftermath of crisis* (pp. 215–238). Mahwah, NJ: Lawrence Erlbaum.
- Calmeiro, L., Tenenbaum, G., & Eccles, D. W. (2014). Managing pressure: Patterns of appraisals and coping strategies of non–elite and elite athletes during competition. *Journal of Sports Sciences*, 32(19), 1813–1820. doi:10.1080/02640414.2014.922692
- Caplan, G., (1964). *Principles of preventive psychiatry*. Oxford, UK: Basic Books.
- Carless, D., & Douglas, K. (2013). Living, resisting, and playing the part of athlete: Narrative tensions in elite sport. *Psychology of Sport and Exercise*, 15(5), 701–708. doi:10.1016/j.psychsport.2013.05.003
- Caron, J., Bloom, G., Johnston, K., & Sabiston, C. (2013). Effects of multiple concussions on retired national hockey league players. *Journal of Sport and Exercise Psychology*, 35, 168–179.
- Carver, C. S. (1998). Resilience and thriving: Issues, models, and linkages. *Journal of Social Issues*, 54(2), 245–266. doi: 10.1111/j.1540–4560.1998.tb01217.x
- Carver, C. S., Scheier, M. F., & Weintraub, J. K. (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology*, 56(2), 267–283. doi:10.1037/0022–3514.56.2.267
- Chan, D. K. C., & Hagger, M. S. (2012). Self–determined forms of motivation predict sport injury prevention and rehabilitation intentions. *Journal of Science and Medicine in Sport*, 15(5), 398–406. doi: 10.1016/j.jsams.2012.03.016
- Chase, K. I., Caine, D. J., Goodwin, B. J., Whitehead, J. R., & Romanick, M. A. (2013). A prospective study of injury affecting competitive collegiate swimmers. *Research in Sports Medicine*, 21(2), 111–123. doi:10.1080/15438627.2012.757224
- Chickering, A.W., & Reisser, L. (1993). *Education and identity* (2nd ed.). Hoboken, NJ: Jossey- Bass.
- Cho, D., & Park, C. L. (2013). Growth following trauma: Overview and current status. *Terapia Psicologica*, 31(1), 69–79. doi: 10.4067/S0718–48082013000100007
- Christopher, M. (2004). A broader view of trauma: A biopsychosocial–evolutionary view of the role of the traumatic stress response in the emergence of pathology and/or growth. *Clinical Psychology Review*, 24(1), 75–98. doi:10.1016/j.cpr.2003.12.003
- Coakley, J. J. (1983). Leaving competitive sport: Retirement or rebirth? *Quest*, 35(1), 1–11.

doi:10.1080/00336297.1983.10483777

- Coakley, J. (2014). *Sports in society: Issues and controversies* (11th ed.). Boston, MA: McGraw–Hill.
- Coffey, A., & Atkinson, P. (1996). *Making sense of qualitative data: Complementary research strategies*. Thousand Oaks, CA: Sage.
- Cohen, K., & Collens, P. (2013). The impact of trauma work on trauma workers: A metasynthesis on vicarious trauma and vicarious posttraumatic growth. *Psychological Trauma: Theory, Research, Practice, and Policy*, 5(6), 570. doi: 10.1037/a0030388
- Collins, D., & MacNamara, A. (2012). The rocky road to the top: Why talent needs trauma. *Sports Medicine*, 42(11), 907–914. doi: 10.1007/BF03262302
- Cordova, M. J., Cunningham, L. L., Carlson, C. R., & Andrykowski, M. A. (2001). Posttraumatic growth following breast cancer: A controlled comparison study. *Health Psychology*, 20(3), 176–185. doi:10.1037/0278–6133.20.3.176
- Cosh, S., Crabb, S., & Tully, P. J. (2015). A champion out of the pool? a discursive exploration of two Australian Olympic swimmers' transition from elite sport to retirement. *Psychology of Sport and Exercise*, 19, 33–41. doi: 10.1016/j.psychsport.2015.02.006
- Coyne, J. C., & Tennen, H. (2010). Positive psychology in cancer care: Bad science, exaggerated claims, and unproven medicine. *Annals of Behavioral Medicine*, 39(1), 16–26. doi:10.1007/s12160–009–9154–z
- Crawford, J. J., Gayman, A. M., & Tracey, J. (2014). An examination of post–traumatic growth in Canadian and American ParaSport athletes with acquired spinal cord injury. *Psychology of Sport and Exercise*, 15(4), 399–406. doi: 10.1016/j.psychsport.2014.03.008
- Crossley, M. L. (2000). Deconstructing autobiographical accounts of childhood sexual abuse: Some critical reflections. *Feminism & Psychology*, 10(1), 73–90. doi: 10.1177/0959353500010001011
- Currier, J. M., Mallot, J., Martinez, T. E., Sandy, C., & Neimeyer, R. A. (2013). Bereavement, religion, and posttraumatic growth: A matched control group investigation. *Psychology of Religion and Spirituality*, 5(2), 69–77. doi: 10.1037/a0027708
- Day, M. C. (2013). The role of initial physical activity experiences in promoting posttraumatic growth in Paralympic athletes with an acquired disability. *Disability & Rehabilitation*, 35(24), 2064–2072. doi:10.3109/09638288.2013.805822
- Day, M. C., Bond, K., & Smith, B. (2013). Holding it together: Coping with vicarious trauma in sport. *Psychology of Sport and Exercise*, 14(1), 1–11. doi:

10.1016/j.psychsport.2012.06.001

- Day, M. C., & Schubert, N. (2012). The impact of witnessing athletic injury: A qualitative examination of vicarious trauma in artistic gymnastics. *Journal of Sports Sciences, 30*(8), 743–753. doi: 10.1080/02640414.2012.671530
- Deci, E., & Ryan, R. (1985). *Intrinsic motivation and self-regulation in human behaviour*. New York, NY: Plenum Press.
- Dekel, S., Ein-Dor, T., & Solomon, Z. (2012). Posttraumatic growth and posttraumatic distress: A longitudinal study. *Psychological Trauma: Theory, Research, Practice, and Policy, 4*(1), 94–101. doi:10.1037/a0021865
- Dekel, R., & Nuttman-Shwartz, O. (2009). Posttraumatic stress and growth: The contribution of cognitive appraisal and sense of belonging to the country. *Health & Social Work, 34*(2), 87–96. doi: 10.1093/hsw/34.2.87
- Denzin, N. K., & Lincoln, Y. S. (2011). The discipline and practice of qualitative research. In N. K. Denzin, & Y. S. Lincoln (Eds.), *The Sage Handbook of Qualitative Research* (4th ed., pp. 1–19). Thousand Oaks, CA: Sage
- Dickson-Swift, V., James, E. L., & Liamputtong, P. (2008). *Undertaking Sensitive Research in the Health and Social Sciences: Managing Boundaries, Emotions and Risks*. New York, NY: Cambridge University Press
- DiCicco-Bloom, B., & Crabtree, B. F. (2006). The qualitative research interview. *Medical Education, 40*(4), 314–321. doi:10.1111/j.1365-2929.2006.02418.x
- Didymus, F. F., & Fletcher, D. (2012). Getting to the heart of the matter: A diary study of swimmers' appraisals of organisational stressors. *Journal of Sports Sciences, 30*(13), 1375–1385. doi: 10.1080/02640414.2012.709263
- Dixon-Woods, M., Bonas, S., Booth, A., Jones, D. R., Miller, T., Sutton, A. J., Shaw, R. L., Smith, J. A., & Young, B. (2006). How can systematic reviews incorporate qualitative research? A critical perspective. *Qualitative Research, 6*(1), 27–44. doi:10.1177/1468794106058867
- Dolbier, C. L., Jaggars, S. S., & Steinhardt, M. A. (2010). Stress-related growth: Pre-intervention correlates and change following a resilience intervention. *Stress and Health, 26*(2), 135–147. doi: 10.1002/smi.1275
- Douglas, K., & Carless, D. (2006). Performance, discovery, and relational narratives among women professional tournament golfers. *Women in Sport and Physical Activity Journal, 15*(2), 14–27.
- Douglas, K., & Carless, D. (2009). Abandoning the performance narrative: Two women's

- stories of transition from professional sport. *Journal of Applied Sport Psychology*, 21(2), 213–230. doi:10.1080/10413200902795109
- Dweck, C. (2006). *Mindset: The new psychology of success*. New York, NY: Random House.
- Elo, S., Kääriäinen, M., Kanste, O., Pölkki, T., Utriainen, K., & Kyngäs, H. (2014). Qualitative Content Analysis: A Focus on Trustworthiness. *SAGE Open*, 1-10. doi: 10.1177/2158244014522633
- Evans, L., Wadey, R., Hanton, S., & Mitchell, I. (2012). Stressors experienced by injured athletes. *Journal of Sports Sciences*, 30(9), 917–927. doi: 10.1080/02640414.2012.682078
- Fasting, K., Brackenridge, C., & Walseth, K. (2002). Consequences of sexual harassment in sport for female athletes. *Journal of Sexual Aggression*, 8(2), 37–48. doi: 10.1080/13552600208413338
- Filipp, S. H. (1999). A three-stage model of coping with loss and trauma. In A. Maercker, M. Schützwohl, & Z. Solomon (Eds.), *Posttraumatic stress disorder: A lifespan developmental perspective* (pp. 43–78). Seattle, WA: Hogrefe and Huber.
- Finkel, N. J. (1975). Stress, traumas and trauma resolution. *American Journal of Community Psychology*, 3(2), 173–178. doi: 10.1007/BF00877792
- Fletcher, D., & Hanton, S. (2003). Sources of organisational stress in elite sports performers. *The Sport Psychologist*, 17(2), 175–195.
- Fletcher, D., & Sarkar, M. (2012). A grounded theory of psychological resilience in Olympic Champions. *Psychology of Sport and Exercise*, 13(5), 669–678. doi: 10.1016/j.psychsport.2012.04.007
- Fletcher, D., & Sarkar, M. (2013). Psychological resilience: A review and critique of definitions, concepts, and theory. *European Psychologist*, 18(1), 12-23. doi: 10.1027/1016-9040/a000124
- Forman, J., & Damschroder, L. (2008). *Qualitative content analysis. Empirical Research for Bioethics: A Primer*. Oxford, UK: Elsevier Publishing
- Foster, R. (2008). *Mark Spitz: The extraordinary life of an Olympic champion*. Santa Monica, CA: Santa Monica Press LLC.
- Frank, A. W. (1995). *The wounded storyteller: Body, illness, and ethics*. Chicago, IL: The University of Chicago Press.
- Frank, A. W. (2012). Practicing dialogical analysis. In J. Holstein, & J. Gubrium (Eds.), *Varieties of narrative analysis* (pp. 33–52). Thousand Oaks, CA: Sage.
- Frankl, V. E. (2006). *Man's search for meaning* (5th ed.). Boston, MA: Beacon Press.

- Frazier, P., Conlon, A., & Glaser, T. (2001). Positive and negative life changes following sexual assault. *Journal of Consulting and Clinical Psychology, 69*(6), 1048–1055. doi: 10.1037/0022-006X.69.6.1048
- Frazier, P. A., & Kaler, M. E. (2006). Assessing the validity of self-reported stress-related growth. *Journal of Consulting and Clinical Psychology, 74*(5), 859–869. doi:10.1037/0022-006X.74.5.859
- Frazier, P., Tennen, H., Gavian, M., Park, C., Tomich, P., & Tashiro, T. (2009). Does self-reported posttraumatic growth reflect genuine positive change? *Psychological Science, 20*(7), 912–919. doi:10.1111/j.1467-9280.2009.02381.x
- Gallaway, M. S., Millikan, A. M., & Bell, M. R. (2011). The association between deployment-related posttraumatic growth among us army soldiers and negative behavioral health conditions. *Journal of Clinical Psychology, 67*(12), 1151–1160. doi: 10.1002/jclp.20837
- Galli, N., & Reel, J. J. (2012a). ‘It was hard, but it was good’: A qualitative exploration of stress-related growth in division I intercollegiate athletes. *Qualitative Research in Sport, Exercise and Health, 4*(3), 297–319. doi: 10.1080/2159676X.2012.693524
- Galli, N., & Reel, J. J. (2012b). Can good come from bad? An examination of adversarial growth in Division I NCAA athletes. *Journal of Intercollegiate Sport, 5*, 199–212.
- Galli, N., & Vealey, R. S. (2008). Bouncing back from adversity: Athletes’ experiences of resilience. *The Sport Psychologist, 22*(3), 316–335
- Georgakopoulou, A. (2006). Thinking big with small stories in narrative and identity analysis. *Narrative Inquiry, 16*(1), 122–130. doi: 10.1075/ni.16.1.16geo
- Gillen, G. (2005). Positive consequences of surviving a stroke. *American Journal of Occupational Therapy, 59*, 346–350. doi: 10.5014/ajot.59.3.346
- Gould, D., & Maynard, I. (2009). Psychological preparation for the Olympic Games. *Journal of sports sciences, 27*(13), 1393–1408. doi: 10.1080/02640410903081845
- Graneheim, U. H., & Lundman, B. (2004). Qualitative content analysis in nursing research: Concepts, procedures and measures to achieve trustworthiness. *Nurse Education Today, 24*(2), 105–112. doi:10.1016/j.nedt.2003.10.001
- Guba, E. G., & Lincoln, Y. S. (2005). Paradigmatic controversies, contradictions, and emerging confluences. In N. K. Denzin, & Y. S. Lincoln (Eds.), *The Sage Handbook of Qualitative Research* (3rd ed.). (pp. 191–216) London: Sage Publications Ltd.
- Guillemin, M., & Gillam, L. (2004). Ethics, reflexivity, and “Ethically important moments” in research. *Qualitative Inquiry, 10*(2), 261–280. doi:10.1177/1077800403262360
- Gunty, A. L., Frazier, P. A., Tennen, H., Tomich, P., Tashiro, T., & Park, C. (2011). Moderators

- of the relation between perceived and actual posttraumatic growth. *Psychological Trauma: Theory, Research, Practice, and Policy*, 3(1), 61–66. doi:10.1037/a0020485
- Hanrahan, S. (2010). Culturally competent practitioners. In S. Hanrahan, & M. Anderson (Eds.), *Routledge handbook of applied sport psychology: A comprehensive guide for students and practitioners* (pp. 460–468). New York, NY: Routledge.
- Hanton, S., Fletcher, D., & Coughlan, G. (2005). Stress in elite sport performers: A comparative study of competitive and organisational stressors. *Journal of Sports Sciences*, 23(10), 1129–1141. doi:10.1080/02640410500131480
- Harris, M., Myhill, M., & Walker, J. (2012). Thriving in the challenge of geographical dislocation: A case study of elite Australian footballers. *International Journal of Sports Science*, 2(5), 51–60. doi: 10.5923/j.sports.20120205.02
- Harrison, B., & Lyon, E. S. (1993). A note on ethical issues in the use of autobiography in sociological research. *Sociology*, 27(1), 101–109. doi: 10.1177/003803859302700110
- Haynes, K. (2006). Linking narrative and identity construction: Using autobiography in accounting research. *Critical Perspectives on Accounting*, 17(4), 399–418. doi:10.1016/j.cpa.2004.08.005
- Hefferon, K., Grealy, M., & Mutrie, N. (2008). The perceived influence of an exercise class intervention on the process and outcomes of post-traumatic growth. *Mental Health and Physical Activity*, 1(1), 32–39. doi: 10.1016/j.mhpa.2008.06.003
- Hefferon, K., Grealy, M., & Mutrie, N. (2009). Post-traumatic growth and life threatening physical illness: A systematic review of the qualitative literature. *British Journal of Health Psychology*, 14(2), 343–378. doi:10.1348/135910708X332936
- Heil, J. (1993). *Psychology of sport injury*. Champaign, IL: Human Kinetics Publishers.
- Helgeson, V. S. (2010). Corroboration of growth following breast cancer: Ten years later. *Journal of Social and Clinical Psychology*, 29(5), 546–574. doi:10.1521/jscp.2010.29.5.546
- Helgeson, V. S., Reynolds, K. A., & Tomich, P. L. (2006). A meta-analytic review of benefit finding and growth. *Journal of Consulting and Clinical Psychology*, 74(5), 797–816. doi:10.1037/0022-006X.74.5.797
- Hobfoll, S., Hall, B., Canetti-Nisim, D., Galea, S., Johnson, R., & Palmieri, P. (2007). Refining our understanding of traumatic growth in the face of terrorism: Moving from meaning cognitions to doing what is meaningful. *Applied Psychology*, 56(3), 345–366. doi: 10.1111/j.1464-0597.2007.00292.x
- Hoon, C. (2013). Meta-synthesis of qualitative case studies an approach to theory building.

- Organisational Research Methods*, 16(4), 522–556. doi:10.1177/1094428113484969
- Howarth, W. L. (1974). Some principles of autobiography. *New Literary History*, 5(2), 363–381.
- Howells, K., & Fletcher, D. (2015). Sink or Swim: Adversity– and Growth–Related Experiences in Olympic Swimming Champions. *Psychology of Sport and Exercise*, 16, 37–48. doi: 10.1016/j.psychsport.2014.08.004
- Hussain, D., & Bhushan, B. (2012). Posttraumatic growth experiences among Tibetan refugees: A qualitative investigation. *Qualitative Research in Psychology*, 10(2), 204–216. doi:10.1080/14780887.2011.616623
- Ivarsson, A., Johnson, U., & Podlog, L. (2013). Psychological predictors of injury occurrence: A prospective investigation of professional Swedish soccer players. *Journal of Sport Rehabilitation*, 22(1), 19–26.
- Jackson, D., Firtko, A., & Edenborough, M. (2007). Personal resilience as a strategy for surviving and thriving in the face of workplace adversity: A literature review. *Journal of Advanced Nursing*, 60(1), 1–9. doi: 10.1111/j.1365–2648.2007.04412.x
- Janoff–Bulman, R. (1989). Assumptive worlds and the stress of traumatic events: Applications of the schema construct. *Social Cognition*, 7(2), 113–136. doi:10.1521/soco.1989.7.2.113
- Janoff–Bulman, R. (1992). *Shattered assumptions: Towards a new psychology of trauma*. New York, NY: The Free Press. doi:10.1037/0033–295X.103.4.670
- Jones, F., & Bright, J. (2001). *Stress: Myth, theory, and research*. Harlow, UK: Pearson Education.
- Jones, R. L., Glimmeyer, N., & McKenzie, A. (2005). Slim bodies, eating disorders and the coach–athlete relationship: A tale of identity creation and disruption. *International Review for the Sociology of Sport*, 40(3), 377–391. doi: 10.1177/1012690205060231
- Joseph, S., & Linley, A. (2005). Positive adjustment to threatening events: An organismic valuing theory of growth through adversity. *Review of General Psychology*, 9(3), 262–280. doi:10.1037/1089–2680.9.3.262
- Joseph, S., & Linley, P. A. (2006). Growth following adversity: Theoretical perspectives and implications for clinical practice. *Clinical Psychology Review*, 26(8), 1041–1053. doi:10.1016/j.cpr.2005.12.006
- Joseph, S., Linley, A. P., & Harris, G. J. (2004). Understanding positive change following trauma and adversity: Structural clarification. *Journal of Loss and Trauma*, 10(1), 83–96. doi:10.1080/15325020490890741

- Joseph, S., Murphy, D., & Regel, S. (2012). An affective–cognitive processing model of post-traumatic growth. *Clinical Psychology and Psychotherapy*, *19*(4), 316–324. doi: 10.1002/cpp.1798
- Joseph, S., Williams, R., & Yule, W. (1993). Changes in outlook following disaster: The preliminary development of a measure to assess positive and negative responses. *Journal of Traumatic Stress*, *6*(2), 271–279. doi: 10.1002/jts.2490060209
- Josselson, R. (2004). The hermeneutics of faith and the hermeneutics of suspicion. *Narrative inquiry*, *14*(1), 1–28. doi: 10.1075/ni.14.1.01jos
- Jowett, S., & Cockerill, I. M. (2003). Olympic medallists' perspective of the athlete–coach relationship. *Psychology of Sport and Exercise*, *4*(4), 313–331. doi:10.1016/S1469-0292(02)00011-0
- Kammer, C., Young, C. C., & Niedfeldt, M. W. (1999). Swimming injuries and illnesses. *The Physician and Sports Medicine*, *27*(4), 51–60. doi: 10.3810/psm.1999.04.783
- Kastenmüller, A., Greitemeyer, T., Epp, D., Frey, D., & Fischer, P. (2012). Posttraumatic growth: Why do people grow from their trauma? *Anxiety, Stress & Coping*, *25*(5), 477–489. doi: 10.1080/10615806.2011.571770
- King, L. A., Scollon, C. K., Ramsey, C., & Williams, T. (2000). Stories of life transition: Subjective well–being and ego development in parents of children with Down Syndrome. *Journal of Research in Personality*, *34*(4), 509–536. doi: 10.1006/jrpe.2000.2285
- Klein, K. J., & Zedeck, S. (2004). Introduction to the special section on theoretical models and conceptual analyses: Theory in applied psychology: Lessons (re) learned. *Journal of Applied Psychology*, *89*(6), 931. doi: 10.1037/0021–9010.89.6.931
- Knowles, Z., Gilbourne, D., Cropley, B., & Dugdill, L. (2014) *Reflective Practice in the Sport and Exercise Sciences: Contemporary Issues*. New York, NY: Routledge
- Koven, M. (2012). Speaker roles in personal narratives. In J. Holstein, & J. Gubrium (Eds.), *Varieties of narrative analysis* (pp. 151–180). California: SAGE.
- Kubiak, S. P. (2005). Trauma and Cumulative Adversity in Women of a Disadvantaged Social Location. *American Journal of Orthopsychiatry*, *75*(4), 451–465. doi:10.1037/0002–9432.75.4.451
- Kubler, R. E. (1969). *On death and dying*. New York, NY: Macmillan.
- Lang, M. (2010). Surveillance and conformity in competitive youth swimming. *Sport, Education and Society*, *15*(1), 19–37. doi:10.1080/13573320903461152
- Lang, M., & Light, R. (2010). Research notes: Interpreting and implementing the long term athlete development model: English swimming coaches' views on the (swimming) LTAD

- in practice. *International Journal of Sports Science and Coaching*, 5(3), 389–402. doi:10.1260/1747-9541.5.3.389
- Larkin, M., Watts, S., & Clifton, E. (2006). Giving voice and making sense in interpretative phenomenological analysis. *Qualitative Research in Psychology*, 3(2), 102–120
- Lavallee, D., & Robinson, H. K. (2007). In pursuit of an identity: A qualitative exploration of retirement from women's artistic gymnastics. *Psychology of Sport and Exercise*, 8(1), 119–141. doi: 10.1016/j.psychsport.2006.05.003
- Lazarus, R. S. (1999). *Stress and emotion: A new synthesis*. London, UK: Free Association.
- Lazarus, R. S. (1966). *Psychological stress and the coping process*. New York, NY: McGraw-Hill
- Lechner, S. C., & Antoni, M. H. (2004). Posttraumatic growth and group-based interventions for persons dealing with cancer: What have we learned so far? *Psychological Inquiry*, 15(1), 35–41.
- Lee, R. M. (1993). *Doing research on sensitive topics*. Thousand Oaks, CA: Sage.
- Lieblich, A., Tuval-Mashiach, R., & Zilber, T. (1998). *Narrative research: Reading, analysis, and interpretation*. Thousand Oaks, CA: Sage.
- Lindstrom, C. M., Cann, A., Calhoun, L. G., Tedeschi, R. G., (2013). The relationship of core belief challenge, rumination, disclosure, and sociocultural elements to posttraumatic growth. *Psychological Trauma*, 5(1), 50–55. doi: 10.1037/a0022030
- Linley, P. A. (2003). Positive adaptation to trauma: Wisdom as both process and outcome. *Journal of Traumatic Stress*, 16(6), 601–610. doi: 10.1023/B:JOTS.0000004086.64509.09
- Linley, P. A., & Joseph, S. (2004). Positive change following trauma and adversity: A review. *Journal of Traumatic Stress*, 17(1), 11–21. doi: 0.1023/B:JOTS.0000014671.27856.7e
- Linley, P. A., & Joseph, S. (2011). Meaning in life and posttraumatic growth. *Journal of Loss and Trauma*, 16(2), 150–159. doi: 10.1080/15325024.2010.519287
- Linley, P. A., Joseph, S., Cooper, R., Harris, S., & Meyer, C. (2003). Positive and negative changes following vicarious exposure to the September 11 terrorist attacks. *Journal of Traumatic Stress*, 16(5), 481–485. doi: 10.1023/A:1025710528209
- Lohn, J. (2010). *Historical dictionary of competitive swimming*. Plymouth, UK: Scarecrow Press.
- Luthar, S. S., & Cicchetti, D. (2000). The construct of resilience: Implications for interventions and social policies. *Development and Psychopathology*, 12(4), 857–885. doi: 10.1017/S0954579400004156

- Maercker, A., & Zoellner, T. (2004). The Janus face of self-perceived growth: Toward a two-component model of posttraumatic growth. *Psychological Inquiry, 15*(1), 41–48.
- Mahoney, M. (1989). Psychological predictors of elite and non-elite performance in Olympic weightlifting. *International Journal of Sport Psychology, 20*(1), 1–12
- Mahoney, M. J., & Avenier, M. (1977). Psychology of the elite athlete: An exploratory study. *Cognitive Therapy and Research, 1*(2), 135–141. doi: 10.1007/BF01173634
- Massey, S., Cameron, A., Ouellette, S., & Fine, M. (1998). Qualitative approaches to the study of thriving: What can be learned? *Journal of Social Issues, 54*(2), 337–355. doi:10.1111/j.1540-4560.1998.tb01222.x
- McCormack, L., Hagger, M. S., & Joseph, S. (2011). Vicarious growth in wives of Vietnam veterans: A phenomenological investigation into decades of “lived” experience. *Journal of Humanistic Psychology, 51*(3), 273–290. doi: 10.1177/0022167810377506
- McDonough, M. H., Sabiston, C. M., & Ullrich-French, S. (2011). The development of social relationships, social support, and posttraumatic growth in a dragon boating team for breast cancer survivors. *Journal of Sport & Exercise Psychology, 33*(5), 627–648.
- McFarland, C., & Alvaro, C. (2000). The impact of motivation on temporal comparisons: Coping with traumatic events by perceiving personal growth. *Journal of Personality and Social Psychology, 79*(3), 327–343. doi:10.1037/0022-3514.79.3.327
- McMahon, S. D., Grant, K. E., Compas, B. E., Thurm, A. E., & Ey, S. (2003). Stress and psychopathology in children and adolescents: Is there evidence of specificity? *Journal of Child Psychology and Psychiatry, 44*(1), 107–133. doi: 10.1111/1469-7610.00105
- McMahon, J., Penney, D., & Dinan-Thompson, M. (2012). ‘Body practices – exposure and effect of a sporting culture?’ Stories from three Australian swimmers. *Sport, Education and Society, 17*(2), 181–206. doi: 10.1080/13573322.2011.607949
- McMahon, J., & Dinan-Thompson, M. (2011). ‘Body work—regulation of a swimmer body’: an autoethnography from an Australian elite swimmer. *Sport, Education and Society, 16*(1), 35–50. doi: 10.1080/13573322.2011.531960
- McMahon, J., & Thompson, M. D. (2008). A malleable body — revelations from an elite Australian swimmer. *ACHPER Australia Healthy Lifestyles Journal, 55*(1), 23–28
- McMillen, C., Howard, M., Nower, L., & Chung, S. (2001). Positive by-products of the struggle with chemical dependency. *Journal of Substance Abuse Treatment, 20*, 69–79. doi: 10.1016/S0740-5472(00)00151-3
- McMillen, J. C., & Cook, C. L. (2003). The positive by-products of spinal cord injury and their correlates. *Rehabilitation Psychology, 48*(2), 77–85. doi:10.1037/0090-5550.48.2.77

- Meichenbaum, D. (1993). Stress inoculation training: A twenty year update. In R. L. Woolfolk & P. M. Lehrer (Eds.), *Principles and practices of stress management* (2nd ed.). (pp. 373–406). New York, NY: Guilford Press.
- Michael, C., & Cooper, M. (2013). Post-traumatic growth following bereavement: A systematic review of the literature. *Counselling Psychology Review*, 28(4), 18–33.
- Moore, A. M., Gamblin, T. C., Geller, D. A., Youssef, M. N., Hoffman, K. E., Gemmell, L., . . . Steel, J. L. (2011). A prospective study of posttraumatic growth as assessed by self-report and family caregiver in the context of advanced cancer. *Psycho-Oncology*, 20(5), 479–487. doi:10.1002/pon.1746
- Moran, J. (2014, November 20). Ian Thorpe breaks the silence on his relationship with Latino pop star Ricky Martin. *The Daily Telegraph*. Retrieved from <http://www.dailytelegraph.com.au/entertainment/sydney-confidential/ian-thorpe-breaks-the-silence-on-his-relationship-with-latino-pop-star-ricky-martin/story-fni0cvc9-1227130227478>
- Morgan, P. B., Fletcher, D., & Sarkar, M. (2013). Defining and characterizing team resilience in elite sport. *Psychology of Sport and Exercise*, 14(4), 549–559. doi:10.1016/j.psychsport.2013.01.004
- Morgan, S. (1999). Prison lives: Critical issues in reading prisoner autobiography. *The Howard Journal of Criminal Justice*, 38(3), 328–340. doi: 10.1111/1468-2311.00136
- Morgan, W. J. (2010). Bullshitters, markets, and the privatization of public discourse about sports. *American Behavioral Scientist*, 53(11), 1574–1589. doi: 10.1177/0002764210368086
- Morris, B. A., Shakespeare-Finch, J., Rieck, M., & Newbery, J. (2005). Multidimensional nature of posttraumatic growth in an Australian population. *Journal of Traumatic Stress*, 18(5), 575–585. doi:10.1002/jts.20067
- Mummery, K. (2005). Essay: Depression in sport. *The Lancet*, 366(1), S36–S37. doi: 10.1016/S0140-6736(05)67840-3
- Neethling, R., & Van der Berg, C. (2008). *Chasing the dream*. Cape Town, SA: Zebra.
- Nelson, A. M. (2006). A metasynthesis of qualitative breastfeeding studies. *The Journal of Midwifery & Women's Health*, 51(2), e13–e20. doi:10.1016/j.jmwh.2005.09.011
- Neumann, D. A., & Gamble, S. J. (1995). Issues in the professional development of psychotherapists: Countertransference and vicarious traumatization in the new trauma therapist. *Psychotherapy: Theory, Research, Practice, Training*, 32(2), 341–347. doi: 10.1037/0033-3204.32.2.341

- Noblit, G. W., & Hare, R. D. (1988). *Meta-ethnography: Synthesizing qualitative studies*. London, UK: Sage.
- Papathomas, A., & Lavalley, D. (2010). Athlete experiences of disordered eating in sport. *Qualitative Research in Sport and Exercise*, 2(3), 354–370. doi: 10.1080/19398441.2010.517042
- Park, C. L. (2004). The notion of growth following stressful life experiences: Problems and prospects. *Psychological Inquiry*, 69–76.
- Park, C. L. (2009). Overview of theoretical perspectives. In C. L. Park, S. C. Lechner, M. H. Antoni, & A. L. Stanton (Eds.), *Medical illness and positive life change* (pp. 31–49). Washington, DC: American Psychological Association.
- Park, C. L. (2010). Making sense of the meaning literature: an integrative review of meaning making and its effects on adjustment to stressful life events. *Psychological Bulletin*, 136, 257–301. doi: 10.1037/a0018301
- Park, C., Cohen, L., & Murch, R. (1996). Assessment and prediction of stress-related growth. *Journal of Personality*, 64(1), 71–105. doi: 10.1111/j.1467-6494.1996.tb00815.x
- Park, C. L., & Helgeson, V. S. (2006). Introduction to the special section: growth following highly stressful life events—current status and future directions. *Journal of Consulting and Clinical Psychology*, 74(5), 791. doi: 10.1037/0022-006X.74.5.791
- Payne, A. J., Joseph, S., & Tudway, J. (2007). Assimilation and accommodation processes following traumatic experiences. *Journal of Loss and Trauma*, 12(1), 75–91. doi: 10.1080/15325020600788206
- Pendleton, V., & McRae, D. (2012). *Between the Lines: The Autobiography*. London, UK: HarperSport.
- Pensgaard, A. M., & Duda, J. L. (2002). “If we work hard, we can do it” a tale from an Olympic (gold) medallist. *Journal of Applied Sport Psychology*, 14(3), 219–236. doi: 10.1080/10413200290103518
- Pensgaard, A. M., Roberts, G. C., & Ursin, H. (1999). Motivational factors and coping strategies of Norwegian Paralympic and Olympic winter sport athletes. *Adapted Physical Activity Quarterly*, 16, 238–250.
- Pensgaard, A. M., & Ursin, H. (1998). Stress, control, and coping in elite athletes. *Scandinavian Journal of Medicine & Science in Sports*, 8(3), 183–189.
- Peterson, C., Park, N., Pole, N., D'Andrea, W., & Seligman, M. E. P. (2008). Strengths of character and posttraumatic growth. *Journal of Traumatic Stress*, 21(2), 214–217. doi:10.1002/jts.20332

- Phelps, M., & Abrahamson, A. (2008). *No limits: The will to succeed*. London, UK: Simon & Schuster.
- Phelps, M., & Cazeneuve, B. (2012). *Beneath the surface* (3rd ed.). Champaign, IL: Sports Publishing LLC.
- Pillemer, D. B. (1984). Conceptual issues in research synthesis. *The Journal of Special Education, 18*(1), 27–40. doi: 10.1177/002246698401800105
- Pipkin, J. (2008). *Sporting lives. Metaphor and myth in American sports autobiographies*. Columbia, MO: University of Missouri Press.
- Podlog, L., & Eklund, R. C. (2006). A Longitudinal Investigation of Competitive Athletes' Return to Sport Following Serious Injury. *Journal of Applied Sport Psychology, 18*(1), 44–68. doi: 10.1080/10413200500471319
- Podlog, L., Wadey, R., Stark, A., Lochbaum, M., Hannon, J., & Newton, M. (2013). An adolescent perspective on injury recovery and the return to sport. *Psychology of Sport and Exercise, 14*(4), 437–446. doi:10.1016/j.psychsport.2012.12.005
- Polatinsky, S., & Esprey, Y. (2000). An assessment of gender differences in the perception of benefit resulting from the loss of a child. *Journal of Traumatic Stress, 13*(4), 709–718. doi:10.1023/A:1007870419116
- Polit, D. F., & Hungler, B. P. (1999). *Nursing Research. Principles and Methods* (6th ed). New York, NY: J.B. Lippincott Company.
- Power, T., Jackson, D., Weaver, R., Wilkes, L., & Carter, B. (2012). Autobiography as genre for qualitative data: A reservoir of experience for nursing research. *Collegian: Journal of the Royal College of Nursing Australia, 19*(1), 39–43. doi:10.1016/j.colegn.2011.09.001
- Prati, G., & Pietrantonio, L. (2009). Optimism, social support, and coping strategies as factors contributing to posttraumatic growth: A meta-analysis. *Journal of Loss and Trauma, 14*(5), 364–388. doi: 10.1080/15325020902724271
- Prayag, G., Hosany, S., Nunkoo, R., & Alders, T. (2013). London residents' support for the 2012 Olympic Games: the mediating effect of overall attitude. *Tourism Management, 36*, 629–640. doi: 10.1016/j.tourman.2012.08.003
- Prigerson, H. G., Shear, M. K., Jacobs, S. C., Reynolds, C., Maciejewski, P. K., Davidson, J. R., ... & Zisook, S. (1999). Consensus criteria for traumatic grief. A preliminary empirical test. *The British Journal of Psychiatry, 174*(1), 67–73. doi: 10.1192/bjp.174.1.67
- Rumbold, J. L., Fletcher, D., & Daniels, K. (2012). A systematic review of stress management interventions with sport performers. *Sport, Exercise, and Performance Psychology, 1*(3),

173. doi: 10.1037/a0026628
- Rutter, M. (1985). Resilience in the face of adversity. *British Journal of Psychiatry*, *147*(1), 598–611. doi: 10.1192/bjp.147.6.598
- Sabiston, C. M., McDonough, M. H., & Crocker, P. R. (2007). Psychosocial experiences of breast cancer survivors involved in a dragon boat program: Exploring links to positive psychological growth. *Journal of Sport and Exercise Psychology*, *29*(4), 419–438.
- Salick, E., & Auerbach, C. (2006). From devastation to integration: Adjusting to and growing from medical trauma. *Qualitative Health Research*, *16*(8), 1021–1037. doi: 10.1177/1049732306292166
- Salim, J., Wadey, R., & Diss, C. (2015). Examining the relationship between hardiness and perceived stress-related growth in a sport injury context. *Psychology of Sport and Exercise*, *19*, 10–17. doi:10.1016/j.psychsport.2014.12.004
- Sandelowski, M., & Barroso, J. (2007). *Handbook for synthesizing qualitative research*. New York, NY: Springer Publishing Company.
- Sarkar, M., Fletcher, D., & Brown, D. J. (2015). What doesn't kill me...: Adversity-related experiences are vital in the development of superior Olympic performance. *Journal of Science and Medicine in Sport*, *18*(4), 475–479. doi:10.1016/j.jsams.2014.06.010
- Schaffer, K., & Smith, S. (2004). Conjunctions: Life narratives in the field of human rights. *Biography*, *27*(1), 1–24. doi:10.1353/bio.2004.0039
- Seery, M. D. (2011). Resilience: A silver lining to experiencing adverse life events? *Current Directions in Psychological Science*, *20*, 390–394. doi:10.1177/0963721411424740
- Schreier, M. (2012). *Qualitative Content Analysis in Practice*. London, UK: Sage Publications Limited
- Schroevers, M. J., & Teo, I. (2008). The report of posttraumatic growth in Malaysian cancer patients: Relationships with psychological distress and coping strategies. *Psycho-Oncology*, *17*(12), 1239–1246. doi:10.1002/pon.1366
- Sears, S. R., Stanton, A. L., & Danoff-Burg, S. (2003). The yellow brick road and the emerald city: Benefit finding, positive reappraisal coping and posttraumatic growth in women with early-stage breast cancer. *Health Psychology*, *22*(5), 487–497. doi:10.1037/0278-6133.22.5.487
- Shakespeare-Finch, J., & Barrington, A. J. (2012). Behavioural changes add validity to the construct of posttraumatic growth. *Journal of Traumatic Stress*, *4*, 433–439. doi:10.1002/jts.21730
- Shakespeare-Finch, J., & Enders, T. (2008). Corroborating evidence of posttraumatic growth.

- Journal of Traumatic Stress*, 21(4), 421–424. doi: 10.1002/jts.20347
- Shakespeare–Finch, J., Martinek, E., Tedeschi, R. G., & Calhoun, L. G. (2013). A qualitative approach to assessing the validity of the posttraumatic growth inventory. *Journal of Loss and Trauma*, 18(6), 572–591. doi:10.1080/15325024.2012.734207
- Shamir, B., Dayan–Horesh, H., & Adler, D. (2005). Leading by biography: Towards a life–story approach to the study of leadership. *Leadership*, 1(1), 13–29. doi:10.1177/1742715005049348
- Shaw, A., Joseph, S., & Linley, P. A. (2005). Religion, spirituality, and posttraumatic growth: A systematic review. *Mental Health, Religion and Culture*, 8(1), 1–11. doi:10.1080/1367467032000157981
- Sheridan, J., Chamberlain, K., & Dupuis, A. (2011). Timelining: Visualizing experience. *Qualitative Research*, 11(5), 552–569. doi:10.1177/1468794111413235
- Shuman, A. (2012). Exploring narrative interaction in multiple contexts. In J. Holstein, & J. Gubrium (Eds.), *Varieties of narrative analysis* (pp. 125). California: SAGE.
- Siegel, K., & Schrimshaw, E. W. (2000). Perceiving benefits in adversity: Stress–related growth in women living with HIV/AIDS. *Social Science & Medicine*, 51(10), 1543–1554. doi: 10.1016/S0277–9536(00)00144–1
- Silver, M., & Coughlin, N. (2006). *Golden girl*. (n.p.): Rodale.
- Simonton, D. K. (2014). Creative performance, expertise acquisition, individual differences, and developmental antecedents: An integrative research agenda. *Intelligence*, 45, 66–73. doi:10.1016/j.intell.2013.04.007
- Smith, J. A. (2004). Reflecting on the development of interpretative phenomenological analysis and its contribution to qualitative research in psychology. *Qualitative research in psychology*, 1(1), 39–54.
- Smith, J. A. (2011). Evaluating the contribution of interpretative phenomenological analysis. *Health Psychology Review*, 5(1), 9–27. doi:10.1080/17437199.2010.510659
- Smith, J. A., Flowers, P., & Larkin, M. (2009). *Interpretative phenomenological analysis: Theory, method and research*. Thousand Oaks, CA: Sage.
- Smith, S. G., & Cook, S. L. (2004). Are reports of posttraumatic growth positively biased? *Journal of Traumatic Stress*, 17(4), 353–358. doi:10.1023/B:JOTS.0000038485.38771.c6
- Smith, B., & Sparkes, A. C. (2009). Narrative inquiry in sport and exercise psychology: What can it mean, and why might we do it? *Psychology of Sport and Exercise*, 10(1), 1–11. doi:10.1016/j.psychsport.2008.01.004

- Smith, S., & Watson, J. (2010). *Reading autobiography: A guide for interpreting life narratives* (2nd ed.). Minneapolis, MN: University of Minnesota Press.
- Sparkes, A. C. (2004). Bodies, narratives, selves, and autobiography the example of Lance Armstrong. *Journal of Sport and Social Issues*, 28(4), 397–428. doi: 10.1177/0193723504269907
- Stanley, L. (1992). *The Auto/biographical I: The theory and practice of feminist Auto/biography*. Manchester, UK: Manchester University Press.
- Staub, E., & Vollhardt, J. (2008). Altruism born of suffering: The roots of caring and helping after victimization and other trauma. *American Journal of Orthopsychiatry*, 78(3), 267–280. doi:10.1037/a0014223
- Stern, P. N., & Harris, C. C. (1985). Women's health and the self-care paradox. A model to guide self-care readiness. *Health Care for Women International*, 6(1–3), 151–163. doi: 10.1080/07399338509515689
- Stewart, C., Smith, B., & Sparkes, A. (2011). Sporting autobiographies of illness and the role of metaphor. *Sport in Society*, 14(5), 581–597. doi: 10.1080/17430437.2011.574358
- Stirling, A., & Kerr, G. (2008). Elite female swimmers' experiences of emotional abuse across time. *Journal of Emotional Abuse*, 7(4), 89–113. doi: 10.1300/J135v07n04_05
- Stockton, H., Hunt, N., & Joseph, S. (2011). Cognitive processing, rumination, and posttraumatic growth. *Journal of Traumatic Stress*, 24(1), 85–92. doi: 10.1002/jts.20606
- Strang, V. (2004). *The meaning of water*. New York, NY: Berg.
- Suedfeld, P., & Weiszbeck, T. (2004). The impact of outer space on inner space. *Aviation, Space, and Environmental Medicine*, 75(Supplement 1), C6–C9.
- Sumalla, E. C., Ochoa, C., & Blanco, I. (2009). Posttraumatic growth in cancer: Reality or illusion? *Clinical Psychology Review*, 29(1), 24–33. doi: 10.1016/j.cpr.2008.09.006
- Swann, C., Moran, A., & Piggott, D. (2015) Defining elite athletes: Issues in the study of expert performance in sport psychology. *Psychology of Sport and Exercise*, 16, 3–14. doi:10.1016/j.psychsport.2014.07.004
- Taku, K., Calhoun, L. G., Cann, A., & Tedeschi, R. G. (2008). The role of rumination in the coexistence of distress and posttraumatic growth among bereaved Japanese university students. *Death Studies*, 32(5), 428–444. doi: 10.1080/07481180801974745
- Tallman, B. A., Lohnberg, J., Yamada, T. H., Halfdanarson, T. R., & Altmaier, E. M. (2014). Anticipating posttraumatic growth from cancer: Patients' and collaterals' experiences. *Journal of Psychosocial Oncology*, 32(3), 342–358. doi:10.1080/07347332.2014.897291
- Tamminen, K. A., Holt, N. L., & Neely, K. C. (2013). Exploring adversity and the potential for

- growth among elite female athletes. *Psychology of Sport and Exercise*, 14(1), 28–36. doi: 10.1016/j.psychsport.2012.07.002
- Taylor, S. E. (1983). Adjustment to threatening events: A theory of cognitive adaptation. *American Psychologist*, 38(11), 1161–1173. doi:10.1037/0003-066X.38.11.1161
- Taylor, S. E., & Armor, D. A. (1996). Positive illusions and coping with adversity. *Journal of Personality*, 64(4), 873–898. doi:10.1111/j.1467-6494.1996.tb00947.x
- Taylor, S. E., Kemeny, M. E., Reed, G. M., Bower, J. E., & Gruenewald, T. L. (2000). Psychological resources, positive illusions, and health. *American Psychologist*, 55(1), 99–109. doi:10.1037/0003-066X.55.1.99
- Tedeschi, R. G., & Calhoun, L. G. (1995). *Trauma & transformation: Growing in the aftermath of suffering*. Thousand Oaks, CA: Sage.
- Tedeschi, R. G., & Calhoun, L. G. (1996). The posttraumatic growth inventory: Measuring the positive legacy of trauma. *Journal of Traumatic Stress*, 9(3), 455–471. doi:10.1007/BF02103658
- Tedeschi, R. G., & Calhoun, L. G. (2004). Posttraumatic growth: Conceptual foundations and empirical evidence. *Psychological Inquiry*, 15(1), 1–18. doi:10.1207/s15327965pli1501_01
- Tedeschi, R. G., & Calhoun, L. G. (2009). The clinician as expert companion. In C. L. Park, S. C. Lechner, M. H. Antoni, & A. L. Stanton (Eds.), *Medical illness and positive life change: Can crisis lead to personal transformation?* (pp. 215–235). Washington, DC: American Psychological Association.
- Tedeschi, R. G., Calhoun, L. G., & Cann, A. (2007). Evaluating resource gain: Understanding and misunderstanding posttraumatic growth. *Applied Psychology*, 56(3), 396–406. doi:10.1111/j.1464-0597.2007.00299.x
- Tennen, H., & Affleck, G. (2009). Assessing positive life changes: In search of meticulous methods. In C. L. Park, S. C. Lechner, M. H. Antoni & A. L. Stanton (Eds.), *Medical illness and positive life change* (pp. 31–49). Washington, DC: American Psychological Association.
- Tewksbury, M. (2006). *Inside out: Straight talk from a gay jock*. Ontario, Canada: Wiley.
- The Guardian. (2014, December 19). Michael Phelps pleads guilty to drunken driving three months after DUI arrest. Retrieved from <http://www.theguardian.com/sport/2014/dec/19/michael-phelps-pleads-guilty-drunken-driving-dui-baltimore>
- Thing, L. F., & Ronglan, L. T. (2015). Athletes' confessions: The sports biography as an

- interaction ritual. *Scandinavian Journal of Medicine & Science in Sports*, 25 (2), 280–288. doi:10.1111/sms.12198
- Thornton, A. A., & Perez, M. A. (2006). Posttraumatic growth in prostate cancer survivors and their partners. *Psycho-Oncology*, 15(4), 285-296. doi: 10.1002/pon.953
- Thorpe, I. (2012). *This is me: Ian Thorpe, the Autobiography*. London, UK: Simon & Schuster.
- Tomich, P. L., & Helgeson, V. S. (2006). Cognitive adaptation theory and breast cancer recurrence: Are there limits? *Journal of Consulting and Clinical Psychology*, 74(5), 980–987. doi: 10.1037/0022-006X.74.5.980
- Torres, D., & Weil, E. (2009). *Age is just a number: Achieve your dreams at any stage in your life*. New York, NY: Broadway Books.
- Tracy, S. J. (2010). Qualitative quality: Eight “big-tent” criteria for excellent qualitative research. *Qualitative Inquiry*, 16(10), 837–851. doi: 10.1177/1077800410383121
- Udry, E., Gould, D., Bridges, D., & Beck, L. (1997). Down but not out: Athlete responses to season-ending injuries. *Journal of Sport and Exercise Psychology*, 19(3), 229–248
- Val, E. B., & Linley, P. A. (2006). Posttraumatic growth, positive changes, and negative changes in Madrid residents following the March 11, 2004, Madrid train bombings. *Journal of Loss and Trauma*, 11(5), 409-424. doi: 10.1080/15325020600685519
- Vallerand, R. J., Blanchard, C., Mageau, G. A., Koestner, R., Ratelle, C., Léonard, M., Gagné, M. & Marsolais, J. (2003). Les passions de l'ame: on obsessive and harmonious passion. *Journal of personality and social psychology*, 85(4), 756. doi: 10.1037/0022-3514.85.4.756
- Vallerand, R. J., Mageau, G. A., Elliot, A. J., Dumais, A., Demers, M., & Rousseau, F. (2008). Passion and performance attainment in sport. *Psychology of Sport and Exercise*, 9(3), 373–392.
- Vallerand, R. J., Rousseau, F. L., Grouzet, F. M., Dumais, A., Grenier, S., & Blanchard, C. M. (2006). Passion in sport: A look at determinants and affective experiences. *Journal of Sport and Exercise Psychology*, 28(4), 454. doi: 10.1016/j.psychsport.2007.05.003
- Wadey, R., Clark, S., Podlog, L., & McCullough, D. (2013). Coaches' perceptions of athletes' stress-related growth following sport injury. *Psychology of Sport and Exercise*, 14(2), 125–135. doi:10.1016/j.psychsport.2012.08.004
- Wadey, R., Evans, L., Evans, K., & Mitchell, I. (2011). Perceived benefits following sport injury: A qualitative examination of their antecedents and underlying mechanisms. *Journal of Applied Sport Psychology*, 23(2), 142–158. doi: 10.1080/10413200.2010.543119

- Wadsworth, M. E. (2015). Development of maladaptive coping: A functional adaptation to chronic, uncontrollable stress. *Child Development Perspectives, 9*(2), 96–100. doi:10.1111/cdep.12112
- Walls, P., Parahoo, K., Fleming, P., & McCaughan, E. (2010). Issues and considerations when researching sensitive issues with men: examples from a study of men and sexual health. *Nurse Researcher, 18*(1), 26–34.
- Walsh, D., & Downe, S. (2005). Meta-synthesis method for qualitative research: A literature review. *Journal of Advanced Nursing, 50*(2), 204–211. doi:10.1111/j.1365-2648.2005.03380.x
- Warriner, K., & Lavalley, D. (2008). The retirement experiences of elite female gymnasts: Self identity and the physical self. *Journal of Applied Sport Psychology, 20*(3), 301–317. doi:10.1080/10413200801998564
- Weiss, T. (2002). Posttraumatic growth in women with breast cancer and their husbands: An intersubjective validation study. *Journal of Psychosocial Oncology, 20*(2), 65–80. doi:10.1300/J077v20n02_04
- Westphal, M., & Bonanno, G. A. (2007). Posttraumatic growth and resilience to trauma: Different sides of the same coin or different coins? *Applied Psychology, 56*(3), 417–427. doi: 10.1111/j.1464-0597.2007.00298.x
- Whaley, D. E., & Krane, V. (2011). Now that we all agree, let's talk epistemology: a commentary on the invited articles. *Qualitative research in sport, exercise and health, 3*(3), 394–403. doi: 10.1080/2159676X.2011.607186
- Widows, M. R., Jacobsen, P. B., Booth-Jones, M., & Fields, K. K. (2005). Predictors of posttraumatic growth following bone marrow transplantation for cancer. *Health Psychology, 24*(3), 266–273. doi:10.1037/0278-6133.24.3.266
- Wiese-Bjornstal, D. M., Smith, A. M., Shaffer, S. M., & Morrey, M. A. (1998). An integrated model of response to sport injury: Psychological and sociological dynamics. *Journal of Applied Sport Psychology, 10*(1), 46–69. doi:10.1080/10413209808406377
- Williams, T. L., Smith, B., & Papatomas, A. (2014). The barriers, benefits and facilitators of leisure time physical activity among people with spinal cord injury: A meta-synthesis of qualitative findings. *Health Psychology Review, 8*(4), 404–425. doi:10.1080/17437199.2014.898406
- Willig, C. (2009). *Introducing qualitative research in psychology* (2nd ed.). Glasgow, UK: Open University Press.
- Wortman, C. B. (2004). Posttraumatic growth: Progress and problems. *Psychological Inquiry,*

- 15(1), 81–90. Retrieved from <http://www.jstor.org/stable/20447207>
- Yanez, B. R., Stanton, A. L., Hoyt, M. A., Tennen, H., & Lechner, S. (2011). Understanding perceptions of benefit following adversity: How do distinct assessments of growth relate to coping and adjustment to stressful events? *Journal of Social and Clinical Psychology, 30*(7), 699–721. doi:10.1521/jscp.2011.30.7.699
- Zoellner, T., & Maercker, A. (2006a). Posttraumatic growth in clinical psychology – A critical review and introduction of a two component model. *Clinical Psychology Review, 26*(5), 626–653. doi:10.1016/j.cpr.2006.01.008
- Zoellner, T., & Maercker, A. (2006b). Posttraumatic growth and psychotherapy. In L.G. Calhoun & R.G. Tedeschi (Eds.), *Handbook of posttraumatic growth* (pp. 334–354). Mahwah, NJ: Lawrence Erlbaum Associates.
- Zoellner, T., Rabe, S., Karl, A., & Maercker, A. (2008). Posttraumatic growth in accident survivors: Openness and optimism as predictors of its constructive or illusory sides. *Journal of Clinical Psychology, 64*(3), 245–263. doi:10.1002/jclp.20441
- Zoellner, T., Rabe, S., Karl, A., & Maercker, A. (2011). Post-traumatic growth as outcome of a cognitive-behavioural therapy trial for motor vehicle accident survivors with PTSD. *Psychology and Psychotherapy: Theory, Research and Practice, 84*(2), 201–213. doi:10.1348/147608310X520157

Appendices

Appendix 1 – Participant Consent Form – Study 2



Dear Swimmer

Olympic Swimmers' experiences of adversity and growth

I am a PhD student at Loughborough University in the School of Sport, Exercise and Health Sciences (SSEHS) looking at adversity and psychological growth in elite level swimmers. This study is the second in my PhD and involves an interview study to explore how Olympic swimmers from the United Kingdom deal with experiences of adversity and growth.

People often experience difficulties or traumatic events in their lives. In my research I am particularly interested in those events or difficulties experienced by elite level swimmers, both in and out of the pool, that are interpreted as significant, serious, or traumatic. These experiences may or may not be related to competitive swimming. Often these difficulties are overcome and result in positive development for the swimmers both as athletes and as human beings. I am interested in both how the difficulties are overcome (if indeed they are) and any subsequent positive outcomes. Psychologists call this area “adversity and growth”.

You have been asked to participate in this study as you competed in at least one Olympic Games between 2000 and 2012 and have indicated that you would be willing to talk to me about your experiences. If you decide to take part then I would appreciate it if you would agree to talk to me in an interview that will last no more than 1 ½ hours at a mutually agreed location. If there are any outstanding issues you may be asked to take part in a further interview which may be via telephone or face-to-face but there will be no obligation on you to do so. The sessions will be recorded through use of audio-equipment and will then be transcribed by myself. A report detailing the study may be published but pseudonyms will be used. It is anticipated that quotes from the interviews will be used to illustrate themes identified by the research.

You are free to refuse to start the interview or withdraw at any time before or during the study.

Although there may be no direct benefit to you, the possible benefit of participation is a greater appreciation of the culture of swimming at an international level and an appreciation of how world class swimmers deal with difficulties in their lives. The study will be used to develop an intervention to assist coaches and those involved in the sport in supporting elite swimmers through adverse experiences.

If you have any questions relating to the study or possible participation then please contact me via email at K.Howells@lboro.ac.uk (Tel: 07526486466) or my Supervisor Dr. David Fletcher at D.Fletcher@lboro.ac.uk (Tel: 01509 223271).

Yours Sincerely,

Karen Howells

I have read the above information provided. The nature, demands, risk, and benefits of participation in the study have been explained to me. I give my consent to participate in the study. I understand that I may withdraw my consent and discontinue participation at any time without penalty or loss of benefit to myself. I give permission for my words and discussions to be used in a written report. I have been given the opportunity to ask questions and any that I have asked have been answered to my satisfaction.

Swimmer's signature..... *Date*

I certify that I have explained to the above swimmer the nature and purpose, the potential benefits and possible risks associated with participation in this interview. I have answered any questions that have been raised, and have witnessed the above signature.

Researcher's signature..... *Date*

Appendix 2 – Interview Schedule Study 2

Interview Guide**Initial Stage**

Thank the individual for their participation, check consent form is completed. Ask if there are any questions prior to beginning. Draw their attention to the audio equipment, check that it is ok to start recording.

START RECORDING

To better understand your experiences as an elite swimmer, I would like to ask you a few questions.

Interview questions		Participant Probes (if appropriate)
1.1	Please could you tell me a little about yourself?	
1.2	What is your background in swimming	
1.3	What are your major achievements in swimming	<ul style="list-style-type: none"> • At what level?
1.4	What is your current swimming status?	<ul style="list-style-type: none"> • When did you retire from swimming?

I would now like you to complete a timeline of your highs and lows in swimming on this sheet of paper (hand the swimmer the A5 sheet). You may select any starting point but your end point should be today. You may include as little or as much information as you wish and may annotate with words, dates, times or pictures.

Swimming

Interview questions		Participant Probes (if appropriate)
2.1	Use the timeline as a prompt - (Narrative) Can you explain to me what led you to start competitive swimming at this point?	<ul style="list-style-type: none"> • If swimming not included, refer to timeline – at what point did you start competitive swimming? • At what age? • Why was that?
2.2	(Descriptive) Can you tell me what place swimming had in your life in these early years (use timeline to identify a period from starting swimming to pre-elite level)?	

2.3	(Descriptive) Can you tell me what place swimming had in your life in the build-up to your first selection for the Olympic Games?	<ul style="list-style-type: none"> • Both occasions? • How did that impact on other areas of your life? Relationships? Work? Studying?
2.4	(Descriptive) Can you tell me what place swimming has in your life now?	<ul style="list-style-type: none"> • How does that make you feel?

Adversity

Interview questions		Participant Probes (if appropriate)
3.1	Can you tell me about any period or event in your life that you found particularly challenging? (if apparent on timeline refer directly to it)?	<ul style="list-style-type: none"> • What happened? • What led to {it} happening? • How did that make you feel? • How did you cope with that? • How did you deal with that? • What role did swimming play (in causing it/in dealing with it)? • What happened as a result of...?
3.2	How do you think other people viewed your [adversity]?	<ul style="list-style-type: none"> • How did that make you feel? • How did you deal with that? • What about your coach/parents/partner? • How did they react?

Transition

Interview questions		Participant Probes (if appropriate)
4.1	How did you react to....?	<ul style="list-style-type: none"> • How have you attempted to deal with the adversity and/or outcomes? • How effective was...? • To what extent did this/these work? • What role did swimming have in helping or

		hindering these strategies?
4.2	How much did you talk to other swimmers/coaches about your [adversity]?	
4.3	What support did you get from others, if any?	<ul style="list-style-type: none"> • How useful was their support?

Perceptions of Growth

Interview questions		Participant Probes (if appropriate)
5.1	Has anything changed as a result of your adversity? [Also process – dominant narrative]	
5.2	Have your experiences changed you or your outlook?	<ul style="list-style-type: none"> • In what way? • And what about others?
5.3	(Comparative) – How do you think your life would have been different if you had not suffered from the adversity(ities) that you described?	<ul style="list-style-type: none"> • Are these positive/negative?
5.4	(Descriptive) Can you tell me what place swimming has in your life now?	<ul style="list-style-type: none"> • How does that make you feel?

Further Adversity

Interview questions		Participant Probes (if appropriate)
6.1	Are there any other events in your life that you have not yet mentioned that you consider traumatic or deeply upsetting?	<ul style="list-style-type: none"> • If so, go back to 2.1 and repeat.

Concluding remarks

That just about completes the interview. However, before we finish, let me ask you some final questions.

Interview questions	
7.1	How do you think the interview went?
7.2	Did you feel you could tell your story fully?
7.3	Did I lead you or influence your responses in any way?
7.4	Is there anything that we haven't talked about that you are able to tell me about your experiences of adversity?
7.5	Have you any comments or suggestions about the interview itself?

Thank you for helping out with this interview study

Appendix 3 – Interview Schedule and Consent Form –Study 3



Adversity and Growth in Elite Level Swimmers – Coaches' Perceptions

Participant Number:

Name:

Age:

Gender:

Telephone Number:

Email:

Position:

Years working as a coach:

Years working with elite swimmers:

Major achievements:

Interview date:

Time begun:

Time ended:

Duration of the interview:

Correspondence concerning this interview guide should be addressed to Karen Howells, School of Sport, Exercise and Health Sciences, Loughborough University, Epinal Way, Loughborough, Leicestershire, LE11 3TU, United Kingdom. Email: K.Howells@lboro.ac.uk

Section 1

Hello, I'm Karen Howells from the School of Sport, Exercise, and Health Sciences at Loughborough University. Thank you for agreeing to participate in this interview study. In this project I am talking to coaches who have coached swimmers to international standard (i.e., European Championships, World Championships, Commonwealth Games, and/or Olympic Games) and discussing with them their thoughts on swimmers' experiences of growth following adversity.

The purpose of this study is establish if coaches consider that swimmers thrive as a result of their experiences of adversity and assuming that they do, to identify what this growth consists of. In this study we are defining adversity as any event or ongoing situation that is perceived by the individual concerned to be traumatic, distressing or upsetting– it includes, but is not restricted to, injury, illness, family issues, mental health issues (e.g., depression, eating disorders), performance slumps, organisational stress, and team/coach conflict.

I want to learn in greater depth about your perceptions so that I will be able to better help coaches and clubs support swimmers through adverse experiences in the future. The information from this study will be used in a number of ways:

1. To write up a research paper to be published in an international peer-reviewed journal.
2. Where appropriate to promote the study findings and identify strategies that may assist Clubs and coaches to better understand the experiences of elite level swimmers.
3. To contribute to the confirmation of an academic degree (i.e., PhD).

I would like to emphasise that all the information you provide me with will remain confidential. In the presentation of the results I may want to use selected quotes from our discussions in order to illustrate important ideas. These will be strictly anonymous and I will ensure that participants' identities are protected. I will be using an audio recording device to get complete and accurate information; this procedure is also necessary so that I will be able to make a typed transcript for later scrutiny and reference.

As a participant in this study you have several rights. Your participation is entirely voluntary and you are

free to decline to answer any questions I ask or stop the discussions at any point. There are no right or wrong answers to the questions I will be asking. If there are any questions that you are not comfortable answering I would rather you decline to comment than tell me what you think I or others might want to hear. So if you would prefer not to answer a question, simply state “no comment” and I will move straight onto the next question.

There are a couple of things I need you to keep in mind throughout our discussions:

1. The interview will focus on your perceptions of the experiences of swimmers that you have coached. It may be appropriate for you to maintain the anonymity of those swimmers by referring to them in general ways (e.g., “a swimmer that I have coached”). However, in the same way that your details will remain confidential, so too will the swimmers whose identities you may disclose.
2. At the end of each section there will be an opportunity for you to add anything that you felt was important and not covered in the questions asked.

Do you have any questions about what I have talked about so far? If you have any questions as we go along then please feel free to ask.

Okay, I just need you to sign this written informed consent and then we can begin.

Section Two– Written Informed Consent

I fully understand all of the above and willingly volunteer to participate in this study.

Signature:

Print name:

Date:

Section 3

To better understand your experiences as a swimming coach working with elite swimmers, I would like to ask you a few questions about your career so far.

Interview questions		Participant Probes (if appropriate)
1.1	Please could you tell me a little about your background in swimming?	<ul style="list-style-type: none"> • As an ex–swimmer?
1.2	How long have you been coaching?	
1.3	What level have you coached at in the past?	<ul style="list-style-type: none"> • How many swimmers that you have coached have represented their country? • How many Olympians?
1.4	What are your current coaching commitments?	<ul style="list-style-type: none"> • Which club? • How many swimmers? • At what level?

Section 4

Moving onto the main part of the interview, I would like to explore your perceptions about the experiences of adversity that your swimmers have encountered.

Interview questions		Participant Probes (if appropriate)
2.1	With particular reference to those swimmers at elite level, what adversities have the swimmers that you have coached experienced?	<ul style="list-style-type: none"> • Injuries, illness? • Depression, self–harm, eating disorders? • Outside swimming?
2.2	Could you describe what happened in a couple of these instances?	<ul style="list-style-type: none"> • How long ago did this/these occur?
2.3	What was the immediate impact of the adversity on the swimmer?	

2.4	What impact, if any, did the adversity have upon their swimming training and performance?	<ul style="list-style-type: none"> • Did they have to take a break from swimming? • What training did they do instead? • What role does swimming play in their lives now?
2.5	What impact, if any, did the adversity have on their wellbeing?	<ul style="list-style-type: none"> • How was this manifested?
2.6	What strategies did the swimmer utilise in the short term to negotiate the adversity?	<ul style="list-style-type: none"> • How effective do you think that these strategies were?
2.7	How did this impact upon their behaviour?	
2.8	Did the swimmer talk to you about the adversity?	<ul style="list-style-type: none"> • What kind of things did they talk to you about? • Who did the swimmer talk to?
2.9	Did you observe any positive changes in the swimmer who experienced the adversity?	<ul style="list-style-type: none"> • How did these changes impact on their behaviour? • What, if any, changes were there in respect of their approach to training and competition? • What, if any changes were there in their approach to life more generally? • How long between the adversity and these changes was there? • How persistent were these changes?
2.10	How close were you to the swimmer involved?	<ul style="list-style-type: none"> • Were there any changes to the relationships that you had with the swimmers as a result if the adversities?
2.11	Are you able to describe any other examples?	<ul style="list-style-type: none"> • RETURN TO 2.2
2.12	Did you learn anything from the swimmers' experiences?	<ul style="list-style-type: none"> • Do you feel that you have changed or grown in any way?

Section 5

That just about completes the interview. However, before we finish, please let me ask you some final questions.

	Interview questions
3.1	How do you think the interview went?
3.2	Did you feel you could tell your story fully?
3.3	Did I lead you or influence your responses in any way?
3.4	Is there anything that we haven't talked about that you are able to tell me about your experiences of adversity and growth in your
3.5	Have you any comments or suggestions about the interview itself?

Thank you for helping out with this interview study

Appendix 4: Sink or Swim – Swimming Times Article

Adversity and growth



Sink or SWIM

Dealing with adversity can have unexpected benefits for Olympic swimmers, say **Karen Howells** and **David Fletcher** of Loughborough University

Gemma Spofforth, retired double Olympian, world championship gold medal winner and world record holder in the 100m backstroke, recently published her autobiography *Dealing with It: Six Years of Mourning, Medals and Men*. Her story details her personal struggles, including the death of her mother and then of her father's new partner and her own battles with depression and suicidal thoughts. Her memoir is the latest in a series of autobiographies published by high-level swimmers detailing their journeys through adversities to achieve Olympic success. Readers of *Swimming Times* will have heard of many, if not all, of the following swimmers and maybe read some of their autobiographies: Michael Phelps, Ian Thorpe,

Amanda Beard, Dara Torres, Natalie Coughlin, Ryk Neethling and Mark Tewksbury. Collectively, they represented four countries at seven Olympic Games, with each swimmer competing in at least two Olympic Games and winning at least one Olympic gold medal at either of the Games. We analysed eight of their autobiographies, specifically looking at the difficulties they experienced and the positive outcomes associated with them. Life is tough. We all suffer our ups and downs and swimmers are no exception. However the research is increasingly pointing to the fact that we can grow or prosper as a result of experiencing traumatic or adverse events. We have all heard the clichés and adages such as 'every cloud has a silver lining' and 'what doesn't kill us makes us stronger'.



Left: Britain's Gemma Spofforth, who is personal struggles are described in her autobiography (below left); right: Ian Thorpe recalled his 'crippling depression' in his book (above); below: US backstrokeer Natalie Coughlin suffered from a debilitating shoulder injury



The concept behind these proverbs is receiving increasing interest from academic researchers, sport psychologists and psychologists in general who have carried out a number of studies exploring the accounts of individuals who have experienced difficult or traumatic events and identifying not just how they overcome these experiences but how they grow from them. Growth is not just about managing and coping with the experience but coming out of it stronger, with a new life philosophy, a change in values, experiencing enhanced relationships, and potentially demonstrating superior performance.

Wider benefit

The research we carried out is the first to look at growth in elite level swimmers but the findings may be of benefit to the larger swimming community. The swimmers studied succeeded in the pool but also in their personal and professional lives, despite

experiencing myriad issues which can be identified as adversities or adversity-related experiences. The issues included ADHD, a speech impediment, dyslexia, obsessive compulsive disorder, family breakdown, family illness, bereavement, conflict with teammates, intense media scrutiny, injury, body dissatisfaction, depression, suicidal thoughts, self-harm and disordered eating.

The adversities were experienced over the course of their lives with several experiencing significant difficulties in childhood. Ryk Neethling referred to his childhood stutter as 'the most traumatic thing in an otherwise perfect childhood'. Others experienced issues in adolescence. For Amanda Beard, puberty shattered her perceptions of who she was and resulted in extreme body dissatisfaction: "...my brain... kept returning to that negative tape playing over and over: "You're fat and disgusting, unlovable."

The majority also experienced difficulties throughout their swimming careers, which involved disordered eating, depression and injury to name but a few. Both Amanda Beard and Dara Torres experienced disordered eating with Dara admitting that 'I'd been bulimic when I'd swum in college and at the 1988 Olympics'.

She recalled experiences of weigh-ins and having to attend additional workouts - named 'the Breakfast Club' - if swimmers did not make target weights. She managed her weight through purging, which is a practice often introduced by other swimmers. She recounted that 'three or four of us followed [one of the swimmers]. She stuck her fingers down her throat and she made herself throw up.'

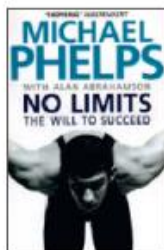
Several of the swimmers wrote that they suffered from depression, with Ian Thorpe identifying that 'I've spent a lot of my life battling what I can only describe as a crippling depression'. The depressions that he, and Mark Tewksbury, gold winner in the 100m backstroke at the 1988 Seoul Olympics, experienced were so severe that they both contemplated suicide. Ian explained that 'I even considered specific places and or a [sic] specific ways to kill myself'.

Natalie Coughlin, Ryk Neethling and Dara Torres all suffered from debilitating shoulder injuries that, at various times, threatened to end their Olympic careers. Dara remarked that 'for six weeks after the shoulder surgery I did a lot of kicking... this exacerbated a knee problem [and] I had surgery again... to repair a tear to my meniscus'.

Catalyst

Rather than being an impediment to success, it appears that these adversities were not only overcome but provided a catalyst for greater things. In the build-up to the 2008 Olympics, with the pressure of aiming for eight gold medals sitting on his shoulders, Michael Phelps revealed that 'when I was in grade school, I was diagnosed with... ADHD [attention deficit hyperactivity disorder]. I had overcome that. When I was in school, a teacher said 'I'd never be successful. Things like that stick with you and motivate you.'

Mark Tewksbury identified homophobic graffiti on his school locker and relentless bullying as being the triggers that 'sent me on a path that brought me to the height of Olympic sport, to being an advocate for >



Left: Michael Phelps, whose autobiography (above) reveals that a teacher at school told him he would never succeed

human rights, to becoming who I am today'. The adversities did not immediately result in growth or positive outcomes for the swimmers. Initially, they attempted to maintain normality in their lives and found solace in the protective solitude of swimming through the development of an emotional relationship with water. Following family breakdown, Amanda Beard reflected that the 'water had become my getaway. The silent sanctuary was my biggest distraction away from the troubles of my family'.

Ryk Neethling explained that he swam to escape the humiliation of a childhood stutter: 'No talking - just me and the cool, smooth water'. Referring to his ADHD, Michael Phelps described the pool as 'my safe haven'. Ian Thorpe talked of the importance of swimming in his battles with depression, suicidal thoughts and the intense media glare: 'The water gives me respite. It's one of the few places... where I am truly happy'.

Normality

At the same time as seeking solace to maintain normality, the swimmers used strategies that involved hiding their difficulties from others. A closed door analogy was apparent with sexuality, disordered eating, self-harm, alcohol use, depression and pain all being outwardly denied.

At the age of seven, Mark Tewksbury began wearing his grandmother's clothes: 'It was our [my grandmother's and my] little secret. No one from the family ever knew about this. Keep it in the closet'.

Amanda Beard learned to keep her purging and self-harming secret; both were done

behind the bathroom door: 'I made sure to carefully cover my tracks and never get caught.' Ian Thorpe 'used alcohol... to rid my head of terrible thoughts... but I did it behind closed doors, where many depressed people choose to fight their demons'. He escaped to a similar place to hide his physical pain from the media: 'There were occasions when in closed rooms out of the sight of cameras I collapsed and convulsed in pain'.

Although trying to maintain normality proved to be effective in the short-term, this was ultimately unsustainable resulting in the swimmers acknowledging the need to confront their issues. Struggling with dyslexia, Amanda Beard recognised that 'Although a hard swim temporarily washed away my stress, my problems refused to budge'.

After five years of hiding it, Dara Torres admitted to an eating disorder: 'I was tired of all my secrets, tired of feeling ashamed and weak'. After moving out from his parents' home, Ian Thorpe 'finally decided to get some answers... the [depression] had become crushing and I knew I needed to seek out other ways of managing it'.

Once they had accepted the need to confront their problems, the swimmers cited the important role of family, friends and coaches in the transformational process from adversity to growth. Ian Thorpe acknowledged the importance of discussing his problems with his family: 'I realize it is time to be open. I need to talk to them about [my depression]'.

The importance of the role of the coach was identified by Michael Phelps, who remarked that 'soon enough Bob would help me find myself through swimming'.

Enhanced relationships

For the swimmers, growth went beyond superior performance and was ultimately identifiable through, among other things, enhanced relationships and altruistic behaviour. Through reflection, the swimmers identified that their social relationships had improved. Ryk Neethling acknowledged that in the pursuit of his Olympic dream he had neglected his relationships and resolved 'to reconnect with my many friends, people who have always been there for me... their support has been unwavering'.

Mark Tewksbury finished his autobiography by acknowledging the important role of his family: 'I felt wonderful, realizing that I had never loved my family as much or felt closer to them as I did at this time in my life'. Supported by her family, Amanda Beard reflected that 'I had so much to be proud of and happy with - not the least of which was the wonderful man by my side'.

Success and improved relationships were indicators of growth, but the ultimate indicator was assisting and supporting others in the form of prosocial behavior or altruism. At the height of her final comeback and moments before an Olympic semi-final, Dara Torres halted the start so that one of her rivals could change out of a faulty swimsuit. Ryk Neethling reflected that 'I love being around kids and the opportunity to give something back to the sport of swimming motivates me'. Michael Phelps, the most decorated Olympian in history, appears at first glance to be the epitome of personal growth but his 'main goal was to raise the sport of swimming as high as I can get it', thus transcending his own personal achievements.

Following the acknowledgement of his sexuality, Mark Tewksbury found acceptance of his identity was 'standing up for something I believed'. In an attempt to give something back to the sport, some engaged in charity work. Ryk Neethling helped to set up and support charitable organisations following the murder of a family member and because 'the plight of these children matters to me. I want to make a difference and I will help in any way I can'.

Compelling reading

Individually, the autobiographies make for compelling reading, but together they present a story of how the world's best swimmers have survived and prospered as a result of, and through, their traumatic experiences.

Coaches, parents and swimmers can all learn from the experiences of these Olympic swimmers as the combined accounts provide important key messages for the wider swimming community about how, regardless of the nature of the adversity, positive outcomes can occur. What is starkly evident in the autobiographies is that Olympic champion swimmers' experience of difficulties did not interfere with their success and their road to Olympic stardom, rather, they had a motivational and positive impact on their development both as swimmers and human beings. Swimming clubs can support swimmers experiencing difficult times by identifying elite level performers who are prepared to talk about their experiences of overcoming adversity. Identification of these role models within swimming, and listening to or reading about their experiences, will provide young swimmers with a greater

understanding of their own experiences but also provide them with the knowledge that adversity not only will not negatively impact upon their swimming careers but may, in the long term, be beneficial. Coaches who identify swimmers who are struggling to come to terms with issues that they are experiencing perhaps at home or at school, could recommend the reading of autobiographies of those swimmers who have suffered and overcome adversity to assist in understanding how others dealt with similar experiences.

Solitude

It is clear that a number of the adversities identified by the swimmers were not associated with swimming - for example, dyslexia, ADHD and family dysfunction - but that engagement in the sport helped them to manage their difficulties. Due to the nature of swimming and the relationship that swimmers form with the water, it provides a solitude that can be useful in initially dealing with these experiences. Coaches, in particular, should be aware that swimmers may be using the water as a means of escape and be sensitive to this fact. Other adversities may be associated with engagement in swimming, including body dissatisfaction, disordered eating and training through injuries. Those involved in high level competitive swimming should be aware of acceptable and accepted practices that may have contributed to these swimming-related adversities and be prepared to question them. For example, while weigh-ins themselves may not contribute directly to body dissatisfaction and disordered eating, an increased awareness of the impact that the practice may

have on how swimmers, particularly females, see themselves should be encouraged. Coaches and parents should be familiar with the swimmers' coping strategies and, given the non-disclosure indicated by the closed doors analogy, disclosure of experiences and a strong social network to support swimmers should be encouraged.

However, the experiences of the Olympic champions have demonstrated that the transformation can take time and that positive outcomes will only occur when the athlete is ready to seek meaning in their experiences and seek out support. An individual involved in supporting swimmers should be empathetic and be prepared to listen to the account of the experience. Swimmers should not be pushed to reflect on the positive outcomes of the event but allowed to understand its significance through a prolonged process of supported reflection. This will assist in making sense of challenging experiences at a point when the swimmer is ready to disclose and accept support.

Cultural script

In conclusion, the trend towards elite level sport performers writing their autobiographies not only provides us with good books to read but a cultural script through which readers who aspire to Olympic success can structure their own lives. The champion swimmers thrived in the face of adversity and demonstrated that through first adopting swimming-specific strategies, then longer-term approaches, they not only overcame their experiences but flourished - both as Olympic swimmers and human beings. **E**

Right: US breaststrokeur Amanda Beard learned to keep her eating disorder and self-harming secret; below: her book has an especially revealing title

