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Psychological Resilience: A Review and Critique of Definitions, Concepts and Theory

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Abstract

The purpose of this paper is to review and critique the variety of definitions, concepts and theories of psychological resilience. To this end, the narrative is divided into three main sections. The first considers how resilience has been defined in the psychology research literature. Despite the construct being operationalized in a variety of ways, most definitions are based around two core concepts: adversity and positive adaptation. A substantial body of evidence suggests that resilience is required in response to different adversities, ranging from ongoing daily hassles to major life events, and that positive adaptation must be conceptually appropriate to the adversity examined in terms of the domains assessed and the stringency of criteria used. The second section examines the conceptualization of resilience as either a trait or process, and explores how it is distinct from a number of related terms. Resilience is conceptualized as the interactive influence of psychological characteristics within the context of the stress process. The final section reviews the theories of resilience and critically examines one theory in particular that is commonly cited in the resilience literature. Future theories in this area should take into account the multiple demands individuals encounter, the meta-cognitive and -emotive processes that affect the resilience-stress relationship, and the conceptual distinction between resilience and coping. The review concludes with implications for policy, practice, and research including the need to carefully manage individuals' immediate environment, and to develop the protective and promotive factors that individuals can proactively utilize to build resilience.

Keywords: adversity, appraisal, coping, positive adaptation, protective and promotive factors.

Psychological Resilience: A Review and Critique of Definitions, Concepts and Theory

Humans typically encounter a variety of difficulties and challenges during the course of their lives, ranging from daily hassles to major life events. Indeed, Bonanno and Mancini (2008) noted that most individuals experience at least one potentially traumatic event (PTE) in their lifetime. The term “potentially” is important because it draws attention to the differences in how people react to life events and whether trauma occurs as a result. To illustrate, some individuals become overwhelmed by everyday hassles (DeLongis, Coyne, Dakof, Folkman, & Lazarus, 1982) whereas others react positively to the most testing of experiences (Bonanno, 2004). It is the study of psychological resilience that seeks to understand why some individuals are able to withstand – or even thrive on – the pressure they experience in their lives.

Within the field of psychology, early inquiry examining resilience represented a “paradigm shift from looking at risk factors that led to psychosocial problems to the identification of strengths of an individual” (Richardson, 2002, p. 309). Increasingly, researchers focused on identifying the characteristics of individuals, particularly young people, who thrived whilst living in difficult circumstances, such as poverty and parental mental illness (Garmezy, 1991; Rutter, 1990; Werner & Smith, 1992). Examples of such qualities were: an easy temperament, good self-esteem, planning skills, and a supportive environment inside and outside the family. Thus, the thrust of early research examining resilience was the search for factors that protect an individual from the stressors they encounter, and distinguish between those who adapt to the circumstances and those who yield to the demands. Since the early 1990s, the focus of resilience research has shifted away from identifying protective factors to understanding the process through which individuals overcome the adversities they experience (Luthar, Cicchetti, & Becker, 2000b).

Over the past two decades psychologists’ understanding of human functioning in

1 demanding situations has developed rapidly, with resilience being examined across a range of
2 contexts, including business organizations (see, e.g., Riolli & Savicki, 2003), education (see,
3 e.g., Gu & Day, 2007), military (see, e.g., Palmer, 2008), sport performance (see, e.g., Galli
4 & Vealey, 2008), and communities (see, e.g., Brennan, 2008). However, one of the main
5 difficulties in conducting research on resilience is that wide discrepancies exist in the way
6 that resilience is defined and conceptualized. For instance, the construct of resilience has
7 variously been defined as a trait, process or outcome. This definitional debate is important to
8 highlight since concepts provide researchers with theoretical boundaries that help determine
9 the nature, direction and veracity of research inquiry. Indeed, Davydov, Stewart, Ritchie and
10 Chaudieu (2010) recently observed that conceptual discrepancies hinder the evaluation and
11 comparison of resilience research findings, preclude meta-analysis, and make it difficult to
12 operationalize the construct for measurement purposes. Hence, they concluded that
13 “clarification ... in this area must proceed firstly by conceptual unification” (p. 479). The
14 purpose of this paper is, therefore, to review and critique the variety of definitions, concepts
15 and theories of psychological resilience. It is hoped that synthesizing what is known in this
16 area will help elucidate the nature of this complex phenomenon and guide future research
17 development. To this end, the narrative is divided into three main sections. The first considers
18 the different ways resilience has been defined and discusses the need for lucidity in defining
19 two pivotal concepts related to resilience: adversity and positive adaptation. The second
20 section examines how resilience has been conceptualized and explores how it is distinct from
21 a number of related terms. The final section reviews the theories of resilience and critically
22 examines one theory in particular that is commonly cited in the resilience literature.

23 Definitions

24 Definitions provide a description of the nature, scope or meaning of a phenomenon.
25 The word resilience originates from the Latin verb *resilire*, or “to leap back”, and is defined

1 in the Oxford Dictionary of English as being “able to withstand or recover quickly from
2 difficult conditions” (Soanes & Stevenson, 2006, p. 1498). The term’s roots lie in science and
3 mathematics; for example, in physics, resilience is considered to be the “ability of a strained
4 body, by virtue of high yield strength and low elastic modulus, to recover its size and form
5 following deformation” (Geller et al., 2003, p. 458). Lazarus (1993) cited the example of
6 elasticity in metals, with a resilient metal bending and bouncing back (instead of breaking)
7 when stressed.

8 When used in relation to humans, numerous definitions of resilience have been
9 proposed in the psychology research literature. The specific nature of a definition is often
10 influenced by the historical and sociocultural context within which the research was
11 conducted, the researchers’ conceptual proclivities, and the population sampled. Examples of
12 some of the most commonly cited definitions of resilience are presented in Table I. Despite
13 the construct being operationalized in a variety of ways, most definitions are based around
14 two core concepts: adversity and positive adaptation. Since the introduction of these
15 concepts to the resilience literature by Luthar and colleagues’ (Luthar, 2006; Luthar &
16 Cicchetti, 2000; Luthar et al., 2000b), they have attracted considerable attention and
17 discussion amongst scholars (see, e.g., Masten, 2001; Rutter, 2006). Most researchers concur
18 that, for resilience to be demonstrated, both adversity and positive adaptation must be
19 evident. However, inconsistencies in the specific delineation of these concepts have led to
20 confusion about their meaning, and to some researchers questioning the scientific value of
21 resilience itself (Bodin & Winman, 2004). It is, therefore, important to address these
22 definitional concerns in order to provide an understanding of why different approaches have
23 prevailed, the results that have emerged, and, as knowledge has accumulated, the relative
24 strengths and weaknesses of theoretical explanations.

25 Regarding the term adversity, Luthar and Cicchetti (2000) stated that adversity

1 “typically encompasses negative life circumstances that are known to be statistically
2 associated with adjustment difficulties” (p. 858). This approach employs a threshold-
3 dependent definition of adversity which is closely aligned with the notion of risk, whereas
4 other researchers have taken a less stringent approach, defining adversity as *any* hardship and
5 suffering linked to difficulty, misfortune or trauma (e.g., Jackson, Firtko, & Edenborough,
6 2007). Moreover, in their role as guest editors of a special edition of the *Journal of*
7 *Personality* on “Resilience in Common Life”, Davis, Luecken and Lemery-Chalfant (2009b)
8 recently observed that “for most of us, the adversities we encounter do not constitute major
9 disasters but rather are more modest disruptions that are embedded in our everyday lives” (p.
10 1638). They, together with the other scholars who present their work in the special edition,
11 make a strong collective case for examining the processes underlying positive adaptation in
12 the face of ongoing daily stressors and highly taxing, yet still common, events (see also
13 Sameroff & Rosenblum, 2006). Most recently, Davydov et al. (2010) speculated that
14 resilience mechanisms may differ in relation to contextual severity, ranging from resilience
15 against regular everyday hassles like work stress (i.e., mild adversity) to resilience against
16 occasional extensive stress such as bereavement (i.e., strong adversity). Thus, as Luthar et al.
17 (2000b) emphasized, it is important that researchers clearly outline their definition of
18 adversity and provide a reasoned justification for its use.

19 Perhaps a more fundamental issue in this area of resilience research is the (negative)
20 value-laden connotations associated with the term “adversity” and, indeed, the majority of
21 work conducted in this area (cf. Agaibi & Wilson, 2005; Vanderbilt-Adriance & Shaw,
22 2008). As noted above, existing definitions of adversity associate negative circumstances
23 with negative consequences or, using risk-related terminology, they focus on established,
24 statistically significant predictors of maladjustment. However, we suggest that ostensibly
25 positive life events – that are *not* typically associated with a higher probability of undesirable

1 outcomes – can also be relevant in defining resilience. For example, a job promotion, which
2 is unlikely to be labeled as an adversity, will nonetheless necessitate resilience characteristics
3 in positively adapting to the novel demands inherent to the role. Similarly, newlywed couples
4 entering a marriage, which again is unlikely to be classified as a risk event, are required to
5 display a range of relationship resources (e.g., observed problem-solving and support-seeking
6 behaviors) to navigate marital-related stressors (Neff & Broady, 2011). Moreover, when
7 adversity is defined as an event that predicts maladjustment it precludes the inclusion of
8 many ongoing daily stressors under the rubric of resilience, despite a growing body of
9 evidence to the contrary (Davis et al., 2009a; Neff & Broady, 2011).

10 Turning to the second core concept, positive adaptation has been defined as
11 “behaviorally manifested social competence, or success at meeting stage-salient
12 developmental tasks” (Luthar & Cicchetti, 2000, p. 858) or “symptoms related to internal
13 well-being” (Masten & Obradović, 2006, p. 15). In order to demonstrate positive adaptation,
14 Luthar and colleagues (Luthar, 2006; Luthar et al., 2000) have asserted that the indicators used
15 to represent this concept must be appropriate to the adversity examined in terms of the
16 domain assessed and the stringency of criteria used. To illustrate, for school children an
17 indicator might be academic achievement, whereas for military personnel a more appropriate
18 indicator would be the absence of psychiatric symptoms. Regarding the stringency of criteria,
19 the nature of the adversity should determine if an individual needs to demonstrate excellent or
20 average levels of competence. More specifically, for an individual exposed to a serious life
21 adversity (e.g., PTEs such as direct exposure to terrorist attacks) it is appropriate to define
22 competence in terms of the absence of psychiatric diagnoses rather than evidence of excellent
23 functioning.

24 An important, yet often overlooked, issue when examining positive adaptation is the
25 sociocultural context in which an individual operates (Clauss-Ehlers, 2008; Mahoney, &

1 Bergman, 2002; Waller, 2001). Ungar and colleagues (Ungar 2008; Ungar & Lienbenberg,
2 2011) argued that resilience research has predominantly defined positive adaptation from a
3 Western psychological discourse with an emphasis on individual and relational capacities,
4 such as academic success and healthy relationships. According to Ungar and colleagues,
5 these outcomes lack sensitivity to cultural factors that contextualize how resilience is defined
6 by different populations and manifested in different practices. Rather than assuming
7 neutrality or objectivity in the use of competence indicators across settings (i.e., an etic
8 perspective), they propose that understanding positive adaptation from within the cultural
9 frame from which competence emerges (i.e., an emic perspective) is a more ecologically
10 sensitive approach (see also Waller, 2001). This perspective is supported by Mahoney and
11 Bergman (2002) who stated that the specific sociocultural conditions in which an individual
12 functions must be considered when examining competence, and that “failing to do so may
13 lead to a view of positive adaptation as a static phenomenon with relevance to only a minority
14 of persons in select circumstances” (p. 212).

15 In sum, Luthar’s seminal work has been highly influential in advancing psychologists’
16 understanding of what resilience is. The key messages to emerge from the literature are that:
17 most definitions are based around the two core concepts of adversity and positive adaptation,
18 resilience is required in response to different adversities ranging from ongoing daily hassles
19 to major life events, and positive adaptation must be conceptually appropriate to the adversity
20 examined in terms of the domain assessed and the stringency of criteria used.

21 Notwithstanding these points, due to resilience being manifested across a variety of contexts,
22 scholars need to be sensitive to the sociocultural factors that contextualize how it is defined
23 by different populations. The next section discusses how psychological resilience has been
24 conceptualized with a view to providing an integrated concept and a new definition of
25 resilience.

Concepts

1
2 Alongside the debate about how resilience should be defined, there has also been
3 considerable discussion about the conceptualization of resilience. While definitions describe
4 the meaning of a term, a concept is an abstract notion that is derived from a combination of
5 personal intuition and consistent evidence. From the perspective of psychological resilience,
6 researchers have recently conducted concept-based analyses to elucidate the antecedents,
7 consequences, and essential attributes of resilience (Earvolino-Ramirez, 2007; Windle, 2011).
8 As discussed in the previous section, the main antecedent of resilience is deemed to be
9 adversity and the main consequence is considered to be positive adaptation. An important
10 debate to emerge from the literature concerns the conceptualization of resilience as either a
11 trait or a process (see, for a review, Windle, 2011). When resilience has been conceived as a
12 trait it has been suggested that it represents a constellation of characteristics that enable
13 individuals to adapt to the circumstances they encounter (Connor & Davidson, 2003). This
14 notion was first alluded to by Block and Block (1980) who used the term “ego-resilience” to
15 describe a set of traits reflecting general resourcefulness, strength of character, and flexibility
16 of functioning in response to varying environmental demands. Individuals with high levels of
17 ego resilience were characterized by high levels of energy, a sense of optimism, curiosity,
18 and the ability to detach and conceptualize problems (Block & Block, 1980). As briefly
19 mentioned earlier, these characteristics have been referred to as protective factors, which
20 Rutter (1985) defined as “influences that modify, ameliorate, or alter a person’s response to
21 some environmental hazard that predisposes to a maladaptive outcome” (p. 600). Since the
22 publication of his work, numerous protective factors have been identified in the resilience
23 research literature, including hardiness (Bonanno, 2004), positive emotions (Tugade &
24 Fredrickson, 2004), extraversion (Campbell-Sills, Cohan & Stein, 2006), self-efficacy (Gu &
25 Day, 2007), spirituality (Bogar & Hulse-Killacky, 2006), self-esteem (Kidd & Shahar, 2008),

1 and positive affect (Zautra, Johnson, & Davis, 2005). The identification of these protective
2 factors supports Rutter's (1987) view that psychological resilience is the "positive role of
3 individual differences in people's response to stress and adversity" (p. 316).

4 From a conceptual perspective, it is important to note that researchers have
5 distinguished between protective and promotive factors arguing that, while the former implies
6 shielding or insulation from the potential negative effects of an event, there are
7 psychological-related phenomena that impute an independent salutary value by yielding
8 benefits such as frequent success experiences (Sameroff, Gutman, & Peck, 2003). Further, to
9 essentially combine such factors under the general rubric of psychological resilience is
10 conceptually grievous since it suggests that resilience is a quality that one either has or does
11 not have (cf. Luthar et al., 2000b). Rather, we argue that protective and promotive factors
12 should be considered in relation to their specific function and that an appreciation of the
13 nature and array of these factors is critical to understanding and developing psychological
14 resilience.

15 While psychological resilience has been conceptualized as a personality trait, it has
16 also been conceived as a process that changes over time. For example, Luthar et al. (2000b)
17 referred to it as a "dynamic process encompassing positive adaptation within the context of
18 significant adversity" (p. 543). The process conceptualization of resilience recognizes that the
19 effects of the protective and promotive factors will vary contextually (from situation to
20 situation) and temporally (throughout a situation and across an individual's lifespan). Thus,
21 while an individual may react positively to adversity at one point in his or her life, it does not
22 mean that the person will react in the same way to stressors at other points in his or her life
23 (cf. Davydov et al., 2010; Rutter, 2006; Vanderbilt-Adriance & Shaw, 2008). As Rutter
24 (1981) observed: "if circumstances change, resilience alters" (p. 317).

25 Those who advocate resilience as a process dispute the notion of resilience as a static

1 state of existence (Mahoney, & Bergman, 2002; Ungar, 2008; Waller, 2001). For example, in
2 a study of resilience among high level athletes, Galli and Vealey (2008) concluded that an
3 important aspect of resilience is the process of agitation, whereby individuals use a range of
4 coping strategies to deal with a combination of unpleasant emotions and mental struggles.
5 Importantly, the athletes reported that positive adaptation occurred gradually, often requiring
6 numerous shifts of thought. These findings support the notion that resilience is a capacity that
7 develops over time in the context of person-environment interactions (Egeland, Carlson, &
8 Sroufe, 1993).

9 The interaction between people and their environments is an important consideration
10 when conceptualizing resilience (Waller, 2001). Relevant here is contemporary stress and
11 emotion theory which emphasizes the relational meaning that individuals construe from their
12 transactions with the environment (cf. Lazarus, 1998, 1999). A recent theoretical model that
13 offers a new insight into the role of resilience in the stress process is the meta-model of stress,
14 emotions and performance (Fletcher & Fletcher, 2005; Fletcher, Hanton, & Mellalieu, 2006;
15 Fletcher & Scott, 2010). Briefly, the basic premise of the model is that stressors arise from
16 the environment an individual operates in, are mediated by the processes of perception,
17 appraisal and coping, and, as a consequence, result in positive or negative responses, feeling
18 states, and outcomes. This ongoing process is moderated by various personal and situational
19 characteristics, including positive affect (Schaubroeck, Ganster, & Fox, 1992), self-esteem
20 (Ganster & Schaubroeck, 1995) and self-efficacy (Schaubroeck & Merritt, 1997). In the
21 context of the present discussion it is interesting to note that these variables appear
22 conceptually analogous to a number of the aforementioned protective and promotive factors.
23 Importantly, according to the meta-model, these resilience-related variables influence the
24 stress process at multiple stages, namely an individual's appraisal of stressors, his or her
25 meta-cognitions in response to felt emotions, and his or her selection of coping strategies.

1 From a stress-coping perspective, numerous studies have highlighted the importance
2 of coping when dealing with adversity (e.g., Clauss-Ehlers, 2008; Leipold & Greve, 2009;
3 Sinclair & Wallston, 2004; Tugade & Fredrickson, 2004). For example, Bogar and Hulse-
4 Killacky (2006) found that female adult survivors of childhood sexual abuse used a variety of
5 coping strategies, such as writing and self talk, to help them recover from their experiences.
6 While coping and recovery are often discussed in relation to resilience, and sometimes used
7 interchangeably with the term, the remainder of this section provides an overview of these
8 constructs and argues that they should be conceived as conceptually distinct from
9 psychological resilience.

10 Despite the Oxford Dictionary of English relating resilience with recovery, academic
11 scholars differentiate between these constructs (see, for a review, Bonanno, 2004). Recovery
12 is characterized by a temporary period of psychopathology followed by gradual restoration to
13 healthy levels of functioning, whereas resilience refers to the ability of individuals to
14 maintain normal levels of functioning. To illustrate, bereaved persons who demonstrate the
15 recovery pattern may exhibit symptoms of depression and experience difficulties completing
16 their normal tasks at work, but they persevere and eventually begin to return to their preloss
17 level of functioning over a period of one or two years (cf. Mancini & Bonnano, 2009). In
18 contrast, individuals who exhibit resilience seem to be able to proceed with their lives with
19 minimal or no apparent disruptions in their daily functioning.

20 Since it is commonly believed that resilience results from the operation of basic
21 human adaptational systems (Masten, 2001), the construct has often been closely aligned to
22 coping. For example, Richardson (2002) proposed that resilience is “the process of coping
23 with stressors, adversity, change or opportunity in a manner that results in the identification,
24 fortification, and enrichment of resilient qualities or protective factors” (p. 308). While
25 resilience and coping are often used interchangeably, there is a growing body of evidence to

1 suggest that these are conceptually distinct constructs (Campbell-Sills, Cohan, & Stein, 2006;
2 Major, Richards, Cozzarelli, Cooper, & Zubek, 1998; Van Vliet, 2008). For example, Major
3 et al. (1998) found that women who had more resilient personality resources to draw on (i.e.,
4 self esteem, perceived control, and optimism) were less likely to appraise their upcoming
5 abortions as stressful. However, for those women lacking in resilient qualities, their
6 appraisals initiated and directed the coping strategies they used to deal with the event, with
7 coping being conceived as the efforts made “to manage specific external demands that are
8 appraised as taxing or exceeding the person’s resources” (Lazarus & Folkman, 1984, p. 141).
9 Thus, resilience *influences* how an event is appraised, whereas coping refers to the strategies
10 employed *following* the appraisal of a stressful encounter.

11 Another key distinction between resilience and coping relates to the consequences
12 associated with aspects of the stress process (Skinner & Zimmer-Gembeck, 2007; Van Vliet,
13 2008). Resilience augurs a positive response to a potentially stressful situation (e.g., the
14 experience of positive emotions) whereas the nature of reactionary coping strategies may be
15 positive (e.g., encouraging self-dialogue) or negative (e.g., substance abuse). Whilst
16 individuals who demonstrate resilience are likely to also exhibit effective coping strategies
17 (Major et al., 1998), it is important at this juncture to distinguish between coping “behaviors”
18 and “styles”. Whereas specific behaviors are more likely to mediate linkages between
19 individuals’ responses and outcomes (Folkman & Moskowitz, 2004), dispositional styles may
20 function as a resilient protective factor that moderate components of the stress process
21 (Campbell-Sills et al., 2006). Hence, resilience is characterized by its influence on one’s
22 appraisal prior to emotional and coping responses and by its positive, protective impact,
23 whereas coping is characterized by its response to a stressful encounter and by its varying
24 effectiveness in resolving outstanding issues. To illustrate, an individual operating in a
25 demanding performance environment on a daily basis would be deemed to exhibit resilience

1 if they evaluated stressors as an opportunity for development and, consequently, received
2 peer recognition for their work. In contrast, if an individual operating in a similar
3 environment did not react as positively and their work suffered and, subsequently, sought
4 social support from his or her colleagues, this would be an example of coping.

5 In summary, the key messages to emerge from the literature are that: resilience
6 consists of various factors that promote personal assets and protect individuals from the
7 negative appraisal of stressors; recovery and coping should be conceived as conceptually
8 distinct from resilience; and resilience influences the stress process at multiple stages, namely
9 an individual's appraisal of stressors, his or her meta-cognitions in response to felt emotions,
10 and his or her selection of coping strategies. Based on these consistent themes, an integrated
11 concept of resilience is presented here as the interactive influence of psychological
12 characteristics within the context of the stress process (cf. Fletcher & Sarkar, 2012).
13 Furthermore, psychological resilience is defined as the role of mental processes and behavior
14 in promoting personal assets and protecting an individual from the potential negative effect of
15 stressors. The next section briefly reviews the various theories of resilience that have been
16 proposed and critically discusses the most commonly cited theory in the literature.

17 Theory

18 Building on general ideas inferred from different instances or occurrences (i.e.,
19 concepts), theories explain or predict complex processes that illustrate casual relationships
20 among concepts (Klein & Zedeck, 2004). During the past three decades, over a dozen
21 theories of resilience have been proposed by various researchers (see Table II). Whilst
22 different theories have emerged, it is possible to identify a number of common features across
23 the approaches taken. The majority of theories incorporate the notion that resilience is a
24 dynamic process that changes over time. Furthermore, most researchers acknowledge that,
25 within the process itself, the interaction of a wide range of factors determines whether an

1 individual demonstrates resilience. However, in terms of specific explanatory potential, the
2 emphasis placed on different factors often varies. For example, the conceptual model of
3 medical student well-being (Dunn, Iglewicz & Moutier, 2008) highlights personality and
4 temperament factors as being fundamental to resilience, whereas the conceptual model for
5 community and youth resiliency (Brennan, 2008) emphasizes the importance of social
6 support. In addition, while resilience is considered to be the most desirable outcome in the
7 majority of theories, some researchers include other (positive) outcome indicators in their
8 theories, such as optimal coping (Agaibi & Wilson, 2005), job satisfaction (Paton et al.,
9 2008), and productivity (Riolfi & Savicki, 2003). Hence, theoretical explanations of
10 resilience often encapsulate other related psychosocial constructs and overlap with other
11 areas of scientific inquiry.

12 With the majority of resilience theories being specific to particular populations (e.g.,
13 adolescents, families, police officers), there is an understandable call for a generic theory that
14 can be applied across different groups of people and potentially stressful situations (see, e.g.,
15 Richardson, 2002). One such theory, which is commonly cited in the resilience literature (see,
16 e.g., Agaibi & Wilson, 2005; Campbell-Sills et al., 2006; Connor & Davidson, 2003; Denz-
17 Penhey & Murdoch, 2008; Galli & Vealey, 2008; Gu & Day, 2007; Sinclair & Watson, 2004;
18 White, Driver, & Warren, 2008), is the metatheory of resilience and resiliency (Richardson,
19 Neiger, Jensen, & Kumpfer, 1990; Richardson, 2002). This particular theory (and its
20 accompanying model) is discussed here since it can potentially be applied to different types
21 of stressors, adversities and life events and at various levels of analysis (such as individual,
22 familial and community). Furthermore, to the best of our knowledge, it is the only metatheory
23 of resilience that includes a range of theoretical ideas from physics, psychology and medicine
24 (White et al., 2008).

25 As part of the development of his theory, Richardson (2002) suggested that the history

1 of resilience research can be categorized into three subareas, which he described as “waves”.
2 The first wave of research was a pursuit by scholars to identify the qualities (i.e., protective
3 factors) of individuals who react positively to difficult conditions in their lives. The second
4 wave of research examined resilience in the context of coping with stressors, adversity,
5 change or opportunity. The third wave of research explored the identification of motivational
6 forces within individuals and groups that drive them toward self-actualization in their lives.
7 However, it has been argued that “the suggestion by Richardson that resilience may be the
8 driving force that controls the universe may be a little overstated” (Windle, 2011, p. 165).

9 One of the main contributions of Richardson (2002) and colleagues (1990) is the
10 presentation of their resiliency model. In the model, the resilience process begins with a state
11 of biopsychospiritual homeostasis, or a comfort zone, where a person is in balance physically,
12 mentally and spiritually. Disruption from this homeostatic state occurs if an individual has
13 insufficient resources (i.e., protective factors) to buffer him or her against stressors,
14 adversities or life events. In time, an individual who has experienced disruption will adjust
15 and begin the reintegration process. This process leads to one of four outcomes: *resilient*
16 *reintegration* (where disruption leads to the attainment of additional protective factors and a
17 new, higher level of homeostasis); *homeostatic reintegration* (where disruption leads to
18 people remaining in their comfort zones, in an effort to “just get past” the disruption);
19 *reintegration with loss* (where disruption leads to the loss of protective factors and a new,
20 lower level of homeostasis); and *dysfunctional reintegration* (where disruption leads to
21 people resorting to destructive behaviors such as substance abuse).

22 Whilst there has been some support for the model in relation to health promotion
23 (Dunn, 1994; Neiger, 1991; Walker, 1996) and sport performance (Galli & Vealey, 2008), the
24 model is not without its drawbacks. Firstly, it is a linear model which considers just one event
25 as it relates to an individual’s experience. With people likely to experience multiple stimuli

1 simultaneously, the model does not take into account the effect this has on the disruption and
2 reintegration processes (Richardson, 2002). Secondly, while Richardson acknowledges that
3 disruption results in primary emotions (such as fear, anger and sadness), the model does not
4 explain how meta-cognition and -emotion affect the reintegration process (cf. Efklides, 2008;
5 Jager & Bartsch, 2006). The cognitive appraisal of emotions is an important aspect of the
6 stress process, with Fletcher et al. (2006) suggesting that those who demonstrate resilience
7 appraise emotions as facilitative to one's functioning. Thirdly, and perhaps most importantly,
8 the model has a bias toward coping-orientated processes. This was highlighted by Connor
9 and Davidson (2003) who discussed the model and subsequently concluded that "resilience
10 may thus... be viewed as a measure of successful stress-coping ability" (p. 77). As noted in
11 the previous section of this paper, there is a growing body of evidence to suggest that
12 resilience and coping should be considered conceptually distinct constructs (Campbell-Sills et
13 al., 2006; Major et al., 1998; Van Vliet, 2008). Thus, this is a significant conceptual
14 drawback of the model that diverts researchers' attention from examining the true nature of
15 resilience.

16 In summary, this section has reviewed the various theories of resilience and has
17 critically examined Richardson (2002) and colleagues (1990) metatheory of resilience and
18 resiliency. Although Richardson and colleagues stimulate an interdisciplinary exchange of
19 the multiple meanings of resilience, the theory and accompanying model are conceptually
20 flawed and their explanatory potential have yet to be rigorously examined. Taking into
21 account the aforementioned limitations of the theory, new theories of resilience grounded in,
22 and supported by, original data are required for progress to be made in our understanding of
23 resilience (see, e.g., Fletcher & Sarkar, 2012).

24 Conclusion

25 Research examining psychological resilience has gathered momentum over the past

1 two decades. In response to the differences in how resilience has been defined,
2 conceptualized and theorized, the need for clarity and specificity has been recognized (see,
3 e.g., Davydov et al., 2010). Moreover, researchers in this area have an ethical obligation to
4 periodically revisit and refine definitions of resilience so that they more accurately portray
5 the experiences of those whose lives they investigate.

6 In terms of impacting on people's lives, scholarly inquiry into psychological
7 resilience has a number of important implications for policy initiatives, professional practice,
8 and research endeavors. Where possible, it is crucial that individuals' immediate environment
9 is carefully managed to optimize the adversities they encounter in their lives. Traditionally,
10 there has been a tendency to assume that negative life circumstances impede positive
11 adaptation. However, Seery, Holman, and Silver (2010) recently found that people with a
12 history of some lifetime adversity reported better mental health and well-being outcomes than
13 people with no history of adversity (see also Neff & Broady, 2011; Seery, 2011). Indeed,
14 drawing from theories of stress inoculation (Meichenbaum, 1985), it has been suggested that
15 exposure to adversity in moderation can mobilize previously untapped resources, help engage
16 social support networks, and create a sense of mastery for future adversities.

17 In view of these findings, governments should provide community-based
18 opportunities that give individuals access to both environmental and personal resources that
19 develop their resilience in meaningful ways (cf. Ungar, 2008). Examples of policy-related
20 initiatives include public education campaigns, mentorship programs for youth, and social
21 groups for the elderly. As part of a community outreach program, psychologists should seek
22 to develop the protective and promotive factors that individuals can proactively utilize to
23 build resilience. Evidence-based workshops on appraisal and meta-reflective strategies should
24 be delivered to form a central part of this resilience training. Such techniques may include
25 minimizing catastrophic thinking, challenging counterproductive beliefs, energy

1 management, problem solving, cultivating gratitude, and strengthening relationships (see,
2 e.g., Reivich, Seligman, & McBride, 2011). Indeed, as the American Psychological
3 Association's (APA) resilience education initiative has demonstrated, psychologists are in a
4 unique position to educate the lay public on developing resilience:

5 For psychologists, using resilience as a bridge to their community has proven
6 valuable. . . . Not only does information about building resilience allow psychologists
7 to help their communities, it also helps communities understand the value of
8 psychology. In fact, where there has been community outreach, people have even
9 gone beyond understanding the value of psychology to experiencing the value of
10 psychology for themselves. (Newman, 2005, pp. 228-229)

11

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Table I

Definitions of Resilience

“Protective factors which modify, ameliorate or alter a person’s response to some environmental hazard that predisposes to a maladaptive outcome” (Rutter, 1987, p. 316)

“The process of, capacity for, or outcome of successful adaptation despite challenging or threatening circumstances” (Masten, Best, & Garmezy, 1990, p. 426)

“A dynamic process encompassing positive adaptation within the context of significant adversity” (Luthar, Cicchetti, & Becker, 2000b, p. 543)

“A class of phenomena characterized by good outcomes in spite of serious threats to adaptation or development” (Masten, 2001, p. 228)

“The personal qualities that enables one to thrive in the face of adversity” (Connor & Davidson, 2003, p. 76)

“The ability of adults in otherwise normal circumstances who are exposed to an isolated and potentially highly disruptive event such as the death of a close relation or a violent or life-threatening situation to maintain relatively stable, healthy levels of psychological and physical functioning, as well as the capacity for generative experiences and positive emotions” (Bonanno, 2004, pp. 20-21)

“Complex repertoire of behavioural tendencies” (Agaibi & Wilson, 2005, p. 197)

“The capacity of individuals to cope successfully with significant change, adversity or risk” (Lee & Cranford, 2008, p. 213).

“An individual’s stability or quick recovery (or even growth) under significant adverse conditions” (Leipold & Greve, 2009, p. 41)

Table II

Summary of Resilience Theories

Author/s (year)	Theory/model	Description
Patterson (1988)	Family adjustment and adaptation response model	Describes the process of families balancing demands and capabilities as they interact with family meanings. The outcome is either family adjustment or adaptation.
Richardson, Neiger, Jensen, and Kumpfer (1990); Richardson (2002)	The resiliency model	Posits the presence of biopsychospiritual homeostasis within an individual which is influenced by adversity, life events and protective factors. Following disruption of homeostasis there is a reintegration process leading to one of four outcomes: resilient reintegration, reintegration back to homeostasis, reintegration with loss, or dysfunctional reintegration.
Polk (1997)	Nursing model of resilience	Resilience conceived as the result of a synergistic relationship between four patterns: dispositional, relational, situational and philosophical.
Riolli and Savicki (2003)	Model of organizational resilience in the information systems field	Integrates organizational and individual levels of response. Sources of stress protection include dispositions and skills (individual level) and organizational structures and processes (organizational level). Outcomes of these processes are resilience, productivity, retention and burnout.
Haase (2004)	Adolescent resilience model	Based on the interaction of concepts that are categorized as one of three

		<p>factors: protective (e.g., family protective, social protective), risk (e.g., individual risk, illness-related risk) and outcome (e.g., resilience, quality of life).</p>
Agaibi and Wilson (2005)	Generic model of resilience in response to psychological trauma	An integrative, person-environment model, emphasizing the interaction between five interrelated variables: personality, affect modulation, ego defences, coping style and mobilization, and utilization of protective factors.
Gillespie, Chaboyer, Wallis, and Grimbeek (2007)	A revised resilience model in operating room nurses	Five variables that explain (60% of the variation in) resilience are hope, self-efficacy, control, coping and competence.
Brennan (2008)	Conceptual model for community and youth resiliency	Communities and youth are often faced with a variety of vulnerabilities. These create an environment requiring social support and community agency. Community agency is the principal condition that enhances resiliency and advances well-being.
Denz-Penhey and Murdoch (2008)	A grounded theory of personal resiliency	Personal resiliency as the main theme in the stories of people who had survived unexpectedly from a serious disease. Resiliency consists of five dimensions: connectedness to one's social environment, one's family, one's physical environment, one's experiential inner wisdom, and one's strong psychological self.
Dunn, Iglewicz, and	The "coping reservoir": A conceptual	A range of inputs, both positive ('filling the reservoir') and negative

Moutier (2008)	model of medical student well-being	('draining the reservoir') combined with personality and temperament factors ('the internal structure of the reservoir'), can lead to positive (e.g., resilience) and negative (e.g., burnout) outcomes.
Galli and Vealey (2008)	Conceptual model of sport resilience	Adversity, sociocultural influences, and personal resources were factors discussed by athletes as being at the centre of the resilience process (agitation), which consequently lead to positive outcomes (e.g., learning and perspective).
Palmer (2008)	A theory of risk and resilience factors in military families	The effects of military risk and resilience factors on child outcome are proposed to follow an indirect pathway involving parental stress and psychopathology, with parent-child interactions considered to be vital for military children.
Paton et al. (2008)	The stress shield model of resilience	The model of police officer resiliency integrates a range of person, team and organizational factors that lead to empowerment, which in turn, lead to a number of outcomes (e.g., adaptive capacity, growth and job satisfaction).
Van Vliet (2008)	A grounded theory of shame and resilience in adulthood	Rebuilding of the self as the main category that signifies the process of recovering from a shame event. Self-reconstruction occurs through five main processes: connecting, refocusing, accepting, understanding and resisting.
Leipold and Greve (2009)	An integrative model of coping,	Resilience is proposed to result from coping processes (e.g., assimilation

	resilience and development	and accommodation), which are influenced by personal and situational conditions. Resilience is considered to be an important part of the conceptual bridge between coping and development.
Mancini and Bonanno (2009)	Hypothesized model of resilience	Individual differences (personality, a priori beliefs, identity complexity, positive emotions, and comfort from positive memories) are proposed to have direct and indirect effects on coping with loss. Appraisal processes and social support play a critical role as shared mechanisms of resilience.
Fletcher and Sarkar (2012)	A grounded theory of psychological resilience and optimal sport performance	Numerous psychological factors (relating to a positive personality, motivation, confidence, focus, and perceived social support) protect the world's best athletes from the potential negative effect of stressors by influencing their challenge appraisal and meta-cognitions. These processes promote facilitative responses that precede optimal sport performance.
