

researchers can further their current knowledge concerning how resilience under stress comes about.

REFERENCES

- Bartone, P. T. (1999). Hardiness protects against war-related stress in Army Reserve forces. *Consulting Psychology Journal, 51*, 72–82.
- Bonanno, G. A. (2004). Loss, trauma, and human resilience: Have we underestimated the human capacity to thrive after extremely aversive events? *American Psychologist, 59*, 20–28.
- Khoshaba, D. M., & Maddi, S. R. (2001). *HardiTraining* (4th ed.). Newport Beach, CA: Hardiness Institute.
- Maddi, S. R. (1996). *Personality theories: A comparative analysis* (6th ed.). Prospect Heights, IL: Waveland Press.
- Maddi, S. R. (2002). The story of hardiness: Twenty years of theorizing, research, and practice. *Consulting Psychology Journal, 54*, 173–185.
- Maddi, S. R., & Khoshaba, D. M. (2001). *HardiSurvey III-R: Test development and internet instruction manual* (4th ed.). Newport Beach, CA: Hardiness Institute.

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Has Resilience to Severe Trauma Been Underestimated?

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Bonanno (January 2004) articulated a model of loss and trauma-related resilience cogently and evocatively. In the trauma field, there is a new focus on risk and resilience factors across the life span (e.g., King, Vogt, & King, 2004), and the article by Bonanno will serve as a herald for this new way of thinking about adjustment to trauma and loss. Because I believe that the most important function of Bonanno's article should be to stimulate theory development and research in this burgeoning area, I raise three issues in service of that goal.

First, Bonanno (2004) emphasized that symptoms of posttraumatic stress disorder (PTSD) define different types of trajectories of adaptation to trauma in order to substantiate his thesis about the common-

ness of resilience. Although it is true that symptoms of PTSD are associated with functional impairment and other public health concerns, there is good reason not to rely exclusively on PTSD symptoms as the sole dependent measure in risk and resilience research. For example, the cutpoint that defines disorder is arbitrary, and individuals may endorse very few PTSD symptoms but manifest considerable functional impairment that should be cause for concern (and vice versa); in other words, subjective impact and internal distress are not necessarily synchronous with functional impact. Researchers need to focus as much on the impact of trauma on preexisting work, family, leisure, and self-care capacities as on the frequency or intensity of PTSD symptoms. In this context, applying Bonanno's scheme, a person may be considered to be resilient if he or she steadily maintains functioning after exposure to trauma but has a different pattern of internal distress over time. It will be important for researchers to examine the predictors of *functional resilience*, especially from a public health perspective.

Second, it is unequivocally true that the only way to test the notions raised by Bonanno (2004) about resilience is to study adaptation *over time*. Cross-sectional studies of adaptation to a trauma or loss should not be used to support or refute the thesis that steady thriving after exposure to trauma is commonplace; the study of resilience and recovery and of posttraumatic growth requires a life course framework and multiwave examination of the trajectory of response to trauma. There is considerably more prospective and longitudinal research on the bereaved than on individuals exposed to trauma, and many of the studies that Bonanno used to substantiate claims about resilience to violent and life-threatening events were cross-sectional, and thus not useful. It would be beneficial if the net effect of Bonanno's article is to stimulate longitudinal research on adaptation to trauma.

Finally, throughout the article, Bonanno (2004) intimated a degree of equivalence between bereavement and trauma, which needs clarification. Will future research confirm the hypothesis that severe direct exposure to trauma and *traumatic loss* leads to as much temporally stable resilience, defined symptomatically and functionally, as has been shown convincingly in the excellent research conducted by Bonanno and others on adaptation to bereavement? At the very least, I would argue that the jury should still be out. For example, it is very hard to imagine resilience, as defined by Bonanno, to be as

common in the context of the abrupt and violent loss of a loved one as it has been demonstrated in the context of bereavement in old age or after chronic illness. It is appropriate and propitious to push the envelope about the assumptions about adaptation to trauma across the life span. Researchers need, however, to consider and acknowledge in their multivariate models depicting risk and resilience a variety of qualitative and quantitative dimensions of trauma and traumatic loss that will differentially affect trajectory of adaptation across the life span (e.g., direct victimization, loss by violence, betrayal trauma, exposure to grotesque loss of life, the taking of life, and so on).

REFERENCES

- Bonanno, G. A. (2004). Loss, trauma, and human resilience: Have we underestimated the human capacity to thrive after extremely aversive events? *American Psychologist, 59*, 20–28.
- King, D., Vogt, D., & King, L. (2004). Risk and resiliency factors in the etiology of chronic PTSD. In B. Litz (Ed.), *Early intervention for trauma and traumatic loss* (pp. 24–64). New York: Guilford Press.

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The Human Capacity for Growth Through Adversity

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We are encouraged by Bonanno's (January 2004) recognition of the human potential for resilience following adversity and his call for psychologists to pay greater attention to this capacity rather than simply focus on psychopathology. This approach parallels recent trends within psychology toward a more "positive psychology," as championed by former American Psychological Association President Martin Seligman (e.g., Seligman & Csikszentmihalyi, 2000). However, it fails to recognize research trends within the traumatic stress literature, which have increasingly pointed toward the capacity not just for resilience but also for people to use aversive events as

a springboard for further growth and development (see, e.g., Linley & Joseph, 2004a; Tedeschi, Park, & Calhoun, 1998). This human capacity for growth through adversity has been referred to as *posttraumatic growth*, *stress-related growth*, *thriving*, *perceived benefits*, *positive adjustment*, and *positive adaptation*, terms which have been collectively described as *adversarial growth* (Linley & Joseph, 2004a). This literature is concerned not with resilience (i.e., “the ability to maintain a stable equilibrium”; Bonanno, 2004, p. 20) but rather with growth and positive change, that is, a shift toward more optimal functioning as a result of the adverse experience (Linley & Joseph, 2004a).

In this comment, we argue that the real paradigm shift needed in dealing with loss and trauma is not simply to include resilience (i.e., the absence of psychopathology). Rather, psychologists should seek to develop an understanding of reactions to adversity that explains the full range of reactions, from psychopathology, through resilience, to adversarial growth. Here we review the main points made by Bonanno (2004) within the context of the adversarial growth literature before presenting a brief overview of a new theory of adversarial growth that addresses these salient considerations, explaining the three possible outcomes of psychopathology, resilience, and adversarial growth following loss and trauma.

Bonanno’s (2004) first point is that resilience is different from recovery. This is indeed the case, but just as he argues for the need to include a perspective on resilience in the loss and trauma literature, this does not go far enough. As is being clearly evidenced by the positive psychology movement (Linley & Joseph, 2004b; Lopez, Snyder, & Rasmussen, 2003), comprehensive models of human functioning should span the full range of human experience, from distress, through resilience, to growth and optimal development. Thus, a focus on resilience alone sells the argument short. A holistic perspective that also includes adversarial growth is required.

Bonanno’s (2004) second point is that resilience is common. This is clear to see, judging by the relatively low prevalence rates of disorder in people who have been exposed to various losses and traumas. However, again this perspective is potentially misleading. To characterize all non-pathological persons as resilient misses the point that a proportion of these people may have gone beyond resilience. They may have experienced adversarial growth, a movement toward more optimal functioning than they enjoyed prior to the event

rather than simply the maintenance of a previous equilibrium. Given the research methodologies found within the adversarial growth literature, it is nearly impossible to state with confidence the prevalence of adversarial growth following specific events. However, it is clear that a significant proportion of people do evidence positive changes following exposure to situations of loss and trauma (Linley & Joseph, 2004a).

Bonanno’s (2004) third point is that the pathways leading to resilience are multiple and sometimes unexpected. This is true of the adversarial growth literature also, but we fundamentally disagree with Bonanno’s claim that “it seems likely that at least some of these factors [i.e., the risk factors for posttraumatic stress disorder], if inverted, would predict resilient functioning” (Bonanno, 2004, p. 25). As evidenced in a recent systematic review of the adversarial growth literature, it is clear that variables that are protective against posttraumatic stress disorder (PTSD) do not automatically promote resilience and adversarial growth. This assumption is flawed, in that it is predicated implicitly on a bipolar understanding of human functioning following loss and trauma, with the individual being found somewhere along a continuum that spans psychopathology, through resilience, to adversarial growth. The evidence clearly indicates that a bipolar model of psychopathology, resilience, and growth cannot explain the pattern of empirical findings (Linley & Joseph, 2004a). Growth and distress are typically positively associated within the early stages following an adverse event, before becoming nonassociated, and finally negatively associated, as the person deals with the experience (cf. Frazier, Conlon, & Glaser, 2001).

Hence, the psychopathology–resilience–adversarial growth relationship is best considered as an independent factors model. Further, the absence of personality variables that are associated with PTSD does not automatically translate to the presence of those variables being associated with resilience and growth (Linley & Joseph, 2004a). We agree that theorists and researchers interested in loss and trauma have been looking for resilience “in the wrong places,” but we suggest that the answers are not to be found by looking at a reversed image of PTSD and distress. Rather, there is a need to look for salutogenic models of health and well-being as a guide to this territory (see Linley, 2003, for a review).

We fully agree with Bonanno (2004) that “dysfunction cannot be fully understood without a deeper understanding of

health and resilience” (Bonanno, 2004, p. 26). However, simply reversing models of bereavement and PTSD in the search for resilience and growth will only lead to further blind alleys. Instead, a comprehensive model is required that can account for the whole range of outcomes experienced. We believe such an account is provided by the organismic valuing theory of adversarial growth (Joseph & Linley, in press). This social–cognitive theory addresses the salient considerations arising from both the PTSD and adversarial growth literatures and shows how the outcomes of psychopathology, resilience, and adversarial growth arise through negative accommodation, assimilation, and positive accommodation, respectively (Joseph & Linley, in press).

As psychology moves (we hope) toward a more unified and integrative approach to the understanding of human experience, there will be an increasing need for models that account for both the negative and the positive aspects of human functioning (Linley & Joseph, 2004b). Only through such a holistic and integrative approach will genuine advancements be possible.

REFERENCES

- Bonanno, G. A. (2004). Loss, trauma, and human resilience: Have we underestimated the human capacity to thrive after extremely aversive events? *American Psychologist*, *59*, 20–28.
- Frazier, P., Conlon, A., & Glaser, T. (2001). Positive and negative life changes following sexual assault. *Journal of Consulting and Clinical Psychology*, *69*, 1048–1055.
- Joseph, S., & Linley, P. A. (in press). Positive adjustment to threatening events: An organismic valuing theory of growth through adversity. *Review of General Psychology*.
- Linley, P. A. (2003). Positive adaptation to trauma: Wisdom as both process and outcome. *Journal of Traumatic Stress*, *16*, 601–610.
- Linley, P. A., & Joseph, S. (2004a). Positive change following trauma and adversity: A review. *Journal of Traumatic Stress*, *17*, 11–21.
- Linley, P. A., & Joseph, S. (2004b). Toward a theoretical foundation for positive psychology in practice. In P. A. Linley & S. Joseph (Eds.), *Positive psychology in practice* (pp. 713–731). Hoboken, NJ: Wiley.
- Lopez, S. J., Snyder, C. R., & Rasmussen, H. (2003). Striking a vital balance: Developing a complementary focus on human weakness and strength through positive psychological assessment. In S. J. Lopez & C. R. Snyder (Eds.), *Positive psychological assessment: A handbook of models and measures* (pp. 3–20). Washington, DC: American Psychological Association.
- Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist*, *55*, 5–14.

Tedeschi, R. G., Park, C. L., & Calhoun, L. G. (Eds.). (1998). *Posttraumatic growth: Positive changes in the aftermath of crisis*. Mahwah, NJ: Erlbaum.

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Conceptual Clarifications in the Study of Resilience

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Bonanno's (January 2004) article on loss, trauma, and human resilience serves an important function for the field in drawing attention to the pseudoscientific mythologies that have grown up around brief normative (loss-related) and nonnormative (traumatic) stressors. As the author rightly pointed out, traditional assumptions regarding the absolute necessity of "grief work" in the case of loss and clinical debriefing following exposure to traumatic events may indeed be overdrawn (and overprescribed) in light of emerging evidence.

Resilience Is a Family of Life Course Patterns (Including Recovery Following Maladaptation)

Although there is much to like about Bonanno's (2004) analysis, several limitations inherent in the author's conceptualization of resilience are troubling in light of the history of developmental research in this area, much of which is cited in the target article (see Luthar, 2003). In essence, Bonanno defined adult resilience as an individual's capacity to resist maladaptation in the face of risky experiences (e.g., "stress resistance"). Although this is one plausible way of conceptualizing resilience, it is by no means an exclusive definition.

An alternative approach to thinking about resilience is as a *family of processes that scaffold successful adaptation in the context of adversity* (Egeland, Carlson, & Sroufe, 1993). Defined more broadly, (a) specific protective processes that promote

resilience can be identified as operative in the face of some forms of adversity (e.g., brief stressors) but not others (e.g., sexual abuse in childhood) and (b) attention is explicitly drawn to environmental (e.g., high-quality relationships) as well as individual (e.g., "hardiness" and related personality traits) sources of protection available not only to children but to adults as well. In addition, viewed through this broader conceptual lens, recovery can be seen as a special case of resilience in that it emphasizes the achievement of successful adaptation following a period of maladaptation or developmental difficulty.

Although Bonanno (2004) pointed out the importance of examining multiple levels of protection and the role of prior experiences in the final paragraph of his article, his individually based definition of adult resilience essentially presupposes that resilience is "in the person," an observation supported by the list of individual attributes that covary with resilient outcomes in Bonanno's work (hardiness, self-enhancement, repressive coping, and positive emotion). In addition, in adopting a rather narrow definition of resilience that does not include recovery following maladaptation, Bonanno's analysis seems unnecessarily constraining in terms of its implications for a research agenda on adult resilience.

Resilience Is Not Risk

Moreover, the fact that some adults deal well with loss and traumatic exposure and others do not may reveal less about the adaptive capacities of individuals experiencing these life events and more about the nature of these putative stressors. If a given experience represents a mere statistical risk rather than a bona fide form of adversity, any "resilience" that ensues in the face of that experience may result from the presence of a small group of highly vulnerable individuals who fall to pieces while navigating the normal vicissitudes of life. Said another way, the term *resilience* is misleading if a stressor would not be expected to normatively tax an individual's adaptive resources and lead to maladaptation if left unchecked. Any successful development that ensues in the face of anything less than a taxing experience is a potentially trivial form of resilience; such a scenario suggests positive adaptation in the face of the phylogenetically mundane. This is not to say that Bonanno's analysis is itself trivial—his work reveals a most interesting finding that loss and brief traumatic experiences, although certainly aversive and unpleasant, are normatively not sufficient to over-

whelm the adaptive resources of ordinary adults.

Resilience Is Ordinary and (Sometimes) Common

In adopting the general definition of resilience described earlier, I would admittedly include Bonanno's (2004) many successful griever and brief trauma observers as examples of individuals who achieved resilient outcomes. However, not all forms of resilience are as common as was suggested in the target article. This point is not controversial and has been consistently made by Arnold Sameroff and his colleagues, who have demonstrated in longitudinal analyses that as levels of adversity rise, and as resources fall, resilience becomes less tenable (Sameroff, Bartko, Baldwin, Baldwin, & Seifer, 1998). Although in many cases resilient outcomes are predictable from "ordinary" protective processes operating in the lives of children and adults, such prospective, longitudinal studies make clear that not all forms of resilience are common (see Masten, 2001).

Summary

Resilience is a scientific construct fraught with potential pitfalls as well as promise. For it to be at the center of a successful research agenda and to differentiate it from lay conceptions of "invulnerability," resilience is best viewed as a family of loosely connected phenomena involving adequate (or better) adaptation in the context of adversity. In addition, much care should be taken not to reach overly general conclusions about this family of protective processes on the basis of any single operationalization.

REFERENCES

- Bonanno, G. A. (2004). Loss, trauma, and human resilience: Have we underestimated the human capacity to thrive after extremely aversive events? *American Psychologist, 59*, 20–28.
- Egeland, B. R., Carlson, E., & Sroufe, L. A. (1993). Resilience as process. *Development and Psychopathology, 5*, 517–528.
- Luthar, S. S. (2003). *Resilience and vulnerability: Adaptation in the context of childhood adversities*. New York: Cambridge University Press.
- Masten, A. S. (2001). Ordinary magic: Resilience processes in development. *American Psychologist, 56*, 227–238.
- Sameroff, A. J., Bartko, W. T., Baldwin, A., Baldwin, C., & Seifer, R. (1998). Family and social influences on the development of child competence. In M. Lewis & C. Feiring (Eds.),