- Masten, A. S. (2001). Ordinary magic: Resilience processes in development. *American Psychologist*, 56, 227–238.
- Masten, A. S. (2004). Regulatory processes, risk, and resilience in adolescent development. *Annals of the New York Academy of Sciences*, *1021*, 310–319.
- McCubbin, H. I., & Patterson, J. M. (1983). The family stress process: The double ABCX model of adjustment and adaptation. *Marriage & Family Review*, 6, 7–37.
- Nichols, W. C. (2013). Roads to understanding family resilience: 1920s to the twenty-first century. In D. S. Becvar (Ed.), *Handbook of family resilience* (pp. 3–16). New York, NY: Springer.
- Pratt, M. G., & Ashford, B. E. (2003). Fostering meaningfulness in working and at work. In K. S. Cameron & J. E. Dutton (Eds.), *Positive organizational scholarship: Foundations of a new discipline* (pp. 309–327). San Francisco, CA: Berrett-Koehler.
- Sutcliffe, K. M., & Vogus, T. J. (2003). Organizing for resilience. In K. S. Cameron & J. E. Dutton (Eds.), *Positive organizational scholarship: Foundations of a new discipline* (pp. 94–110). San Francisco, CA: Berrett-Koehler.
- Walsh, F. (2003). Family resilience: Strengths forded through adversity. In F. Walsh (Ed.), *Normal family processes: Growing diversity and complexity* (3rd ed., pp. 399–423). New York, NY: Guilford Press.

Elaborating on the Conceptual Underpinnings of Resilience

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The term *resilience* has grown in popularity among the general public and within the scientific community. Unfortunately, the rise in popularity has advanced neither our theoretical understanding of this construct nor the methodological approaches to study this topic. Britt, Shen, Sinclair, Grossman, and Klieger (2016) highlighted important conceptual, methodological, and practical advances and shortcomings within the literature on employee

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resilience. However, critical conceptual issues remain unaddressed within the focal article. Specifically, in our commentary, we differentiate between resiliency and resilience, identify key dimensions of each construct, and explicate the role of adversity and context to further advance our theoretical understanding of this construct. We conclude by discussing the implications of our proposed conceptualization and refinement of resilience for theory, research, and practice.

What Is Resilience and What Are Its Components?

At the outset, it is important to acknowledge that the construct of resilience *still* lacks a universally accepted definition (Meredith et al., 2011; Wald, Taylor, Asmundson, Jang, & Stapleton, 2006). While Britt and colleagues highlight important distinctions regarding the capacity and demonstration of resilience, they do not address key conceptual and theoretical issues plaguing this literature—that is, what is resilience? What are its components? Indeed, researchers continue to refer to resilience interchangeably as a trait, state, and process variable (Jacelon, 1997; Tusaie & Dyer, 2004). We believe this is the first and foremost important task to accomplish in order to enable advances in theory, research, and practice.

We echo the importance of distinguishing the traitlike, statelike, and processlike aspects of this construct (Jacelon, 1997; Meredith et al., 2011). In doing so, we advance this discussion further than the focal article by explicating the differences between resiliency and resilience. Accordingly, we conceptualize *resiliency* as a constellation of traits associated with an individual's capacity to adapt, recover, and grow in response to challenging and/or threatening conditions (Jacelon, 1997; Tusaie & Dyer, 2004; Wald et al., 2006). Furthermore, we conceptualize *resilience* as a dynamic process by which an individual's characteristics, abilities, and competencies combine to enable the individual to adapt, recover, and grow in response to challenging and/or threatening conditions (Jacelon, 1997; Windle, Bennett, & Noyes, 2011). Our conceptualizations of resiliency and resilience imply that many of the individual difference variables investigated within the literature to date are best framed as precursors or antecedent variables and are thus not synonymous with resilience itself.

Our definitions are in keeping with past conceptualizations of these constructs and acknowledge that an individual's capacity to *adapt* and *grow* are core dimensions of the constructs (Meredith et al., 2011; Wald et al., 2006). We concur with Britt and colleagues that both adaptation and growth can result not only from positive but also from negative events. Hence, our definitions explicitly omit qualifiers that lend subjective interpretations to the threatening and/or challenging conditions an individual may confront. Our definitions also note the importance of recovery as a fundamental aspect of

resiliency and resilience. Contemporary theorizing about these constructs allude to the fact that the adaptation process involves returning to a normal state (i.e., bounce back or return to a preexposure level of functioning; Smith, et al., 2008). Hence, we identify recovery as a distinct dimension of both resiliency and resilience.

To summarize, we distinguish between resiliency and resilience, and we define the core dimensions of these constructs as follows:

- Adaptation refers to an individual's capacity to *adjust* to challenging and/or threatening conditions.
- Recovery refers to an individual's capacity to *pull through or overcome* challenging and/or threatening conditions.
- Growth refers to an individual's capacity to *develop and evolve* from challenging and/or threatening conditions.

Is Significant Adversity Required?

As noted by Britt and colleagues, the literature often considers "significant adversity" as a necessary condition for resilience to emerge (Luthans, Vogelgesang, & Lester, 2006; Meredith et al., 2011). However, the literature is not exactly clear on what constitutes significant adversity, and how to measure it remains a mystery. Definitions of resiliency and resilience specified above imply that experiencing significant adversity may involve the presence of a challenging and/or threatening condition (sometimes referred to as turbulence and discontinuities; Bhamra, Dani, & Burnard, 2011; Meredith et al., 2011). Linkages between significant adversity and challenging and/or threatening conditions are consistent with theories and research on stress and coping (e.g., Lazarus & Folkman, 1984)—which, contrary to Britt and colleagues, we believe are very informative for theory and research on this topic (Tusaie & Dyer, 2004). Such approaches allow us to view significant adversity along a continuum of challenges and threats that can range in terms of acuteness and chronicity or in terms of frequency, intensity, and duration, as noted by Britt and colleagues.

Chronic challenges/threats may consist of "enduring and pervasive incidents that require... a response across a period of time," whereas acute challenges/threats may be characterized by "more isolated incidents that focus on relatively more proscribed coping efforts" (Bonanno & Diminich, 2013, pp. 380–381). The importance of viewing significant adversity along a continuum of challenging and/or threatening conditions is that the responses to these conditions may occur immediately (as in the case of an acute stressor) and/or over a course of time (as in the case of a cumulative chronic stressor). Leveraging these criteria to assess significant adversity will be impor-

tant to advance research on resilience and move forward. Hence, we concur with Britt and colleagues that both theory and research on resiliency and resilience need to assess significant adversity independently.

What About Context?

Our conceptualization has thus far omitted discussion about the context in which resiliency or resilience is supposed to emerge. Britt and colleagues allude to the fact that a good portion of research on resilience has been carried out in military organizations, raising questions about limitations of this research to other contexts. Hence, the question of whether context matters is one that bears some consideration. We agree with Britt and colleagues that extant theory and empirical research bearing on this topic have been carried out in a vacuum, and this state of affairs continues to hamper conceptual and methodological progress within the literature. We need to integrate across domains and contexts to fully explicate the conceptual space for these constructs. Where and for what purpose (i.e., job or condition) does resilience matter? Is it the case that resilience is most relevant for some, but not all, jobs and/or conditions? Not every job or situation may provide for challenging/threatening conditions of the sort that may trigger resilience to emerge. In addition, it is worth noting that resilience may not be as important in all job situations; hence, simply widening the lens of inquiry to different populations of employees may not necessarily lead to an increase in our understanding of the construct. Why does context matter? Under what conditions does context play a role for resilience emergence? Identifying some of the contextual differences prior to the initiation of research can help mitigate some of the limitations that revolve around the generalizability of findings.

Implications for Theory, Research, and Practice

Given points noted by Britt and colleagues and comments advanced in this article, we see several implications for future research. First, at the risk of stating the obvious, we believe that measures of resilience need to be improved. Although Britt and colleagues described various approaches used to measure resilience in the literature, to include personality and trajectory based approaches, their discussion did not acknowledge that many of these approaches assess resilience indirectly—that is, resiliency versus resilience. Hence, they confound the measurement of factors thought to influence resilience (i.e., resiliency) with resilience itself. Unfortunately, this is an all too common occurrence in the literature (Estrada & Severt, 2014). We conducted a methodological review of measures of resilience and found that 89% of instruments measured resilience indirectly (Estrada & Severt, 2014). That is, antecedents, outcomes, and covariates closely related to resilience were measured and presumed to align perfectly with resilience. Hence, we

recommend that direct measures of resilience that align with our conceptual definition be developed and refined in the future.

Related to the measurement concerns above, we note the preponderance of cross-sectional studies that characterize this literature. While crosssectional measurement approaches are helpful for understanding simple relationships between resilience and resilience-related constructs, causal relationships between significant adversity and resilience cannot be determined without incorporating the effect of time into future research designs. This is particularly important if we assume that (a) resilience is exhibited in response to significant adversity and (b) resilience is characterized by a person's ability to adapt, recover, and grow as a result of adversity. As noted by Britt and colleagues, cross-sectional designs do not account for the time lag necessary for all of these events to unfold. Moreover, retrospective cross-sectional measurement procedures artificially compress adversity and resilience processes into short length timeframes, making it difficult to study the timedependent nature of the relationships often hypothesized in resilience research. Hence, we concur with Britt and colleagues' call for greater emphasis on the use of longitudinal designs to study resilience.

Next, the discussion above reinforces the need to measure significant adversity independently of resilience and resilience-related constructs. Often times, particularly when resilience is measured cross-sectionally, the measurement of resilience is contaminated because significant adverse events are measured as part of the resilience process itself. We recommend that significant adversity be measured by documenting the frequency, intensity, and duration of adverse events. By narrowing measurement focus to just the characteristics of adverse events, resilience and resilience-related constructs are subsequently more likely to be measured in isolation, reducing the chances of introducing measurement contamination. This strategy will increase the probability that significant adversity and resilience are measured independently, enhancing the ability to make causal inferences regarding these phenomena.

Finally, before advocating for the development of training programs designed to increase employee resilience, we need to establish an empirical base that substantiates the impact of resilience on theoretically meaningful outcomes to ascertain whether efforts to enhance resilience have their intended effects. Though Britt and colleagues describe the limitations of several resilience training programs, they miss the opportunity to raise the more immediate question of whether enhancing employee resilience matters for most jobs. As described earlier in this commentary, resilience may not be necessary for all occupations or it may be more or less relevant to certain occupations. Hence, advocating for training programs to increase resilience will do little more than waste organization and employee resources.

In this commentary we sought to elaborate on the conceptual underpinnings of employee resilience. Though much work remains to be done, we believe that distinguishing between resiliency and resilience will be critical in enabling advances in theory, research, and practice. Likewise, assessing resilience directly and independently from significant adversity will yield more reliable and valid measurement and enable advancement in our understanding of this construct. Finally, the myriad of contexts in which resilience is measured and applied should be considered in order to more effectively integrate findings across distinct occupational domains. We hope that the comments articulated within this article help to bring about a more integrated and theoretically parsimonious body of research on employee resilience.

References

- Bhamra, R., Dani, S., & Burnard, K. (2011). Resilience: The concept, a literature review and future directions. *International Journal of Production Research*, 49(18), 5375–5393.
- Bonanno, G. A., & Diminich, E. D. (2013). Annual research review: Positive adjustment to adversity—trajectories of minimal-impact resilience and emergent resilience. Journal of Child Psychological Psychiatry, 54(4), 378–401.
- Britt, T. W., Shen, W., Sinclair, R. R., Grossman, M. R., & Klieger, D. M (2016). How much do we really know about employee resilience? Industrial and Organizational Psychology: Perspectives on Science and Practice, 9(2), 378-404.
- Estrada, A. X., & Severt, J. B. (2014, August). A critical review of instruments measuring resilience. Paper presented at the Annual Convention of the American Psychological Association, Washington, DC.
- Jacelon, C. S. (1997). The trait and process of resilience. Journal of Advanced Nursing, 25, 123-129.
- Lazarus, R. S., & Folkman, S. (1984). Stress, appraisal, and coping. New York, NY. Springer. Luthans, F., Vogelgesang, G. R., & Lester, P. B. (2006). Developing the psychological capital of resiliency. Human Resource Development Review, 5(1), 25-44.
- Meredith, L. S., Sherbourne, C. D., Gaillot, S., Hansell, L., Ritschard, H. V., Parker, A. M., & Wrenn, G. (2011). Promoting psychological resilience in the U.S. military. Santa Monica, CA: RAND.
- Smith, B. W., Dalen, J., Wiggins, K., Tooley, E., Christopher, P., & Bernard, J. (2008). The brief resilience scale: Assessing the ability to bounce back. International Journal of Behavioral Medicine, 15, 194-200.
- Tusaie, K., & Dyer, J. (2004). Resilience: A historical review of the construct. Holistic Nursing Practice, 18, 3-10.
- Wald, J., Taylor, S., Asmundson, G. J. G., Jang, K. L., & Stapleton, J. (2006). Literature review of concepts: Psychological resilience (Report No. DRDC Toronto CR 2006-073). Toronto, Canada: Defence Research & Development Canada.
- Windle, G., Bennett, K. M., & Noyes, J. (2011). A methodological review of resilience measurement scales. Health and Quality of Life Outcomes, 8, 1-18.