

# Predicting Unit Performance by Assessing Transformational and Transactional Leadership

Bernard M. Bass  
Binghamton University

Bruce J. Avolio  
University of Nebraska—Lincoln

Dong I. Jung  
San Diego State University

Yair Berson  
Polytechnic University

How do leadership ratings collected from units operating under stable conditions predict subsequent performance of those units operating under high stress and uncertainty? To examine this question, the authors calculated the predictive relationships for the transformational and transactional leadership of 72 light infantry rifle platoon leaders for ratings of unit potency, cohesion, and performance for U.S. Army platoons participating in combat simulation exercises. Both transformational and transactional contingent reward leadership ratings of platoon leaders and sergeants positively predicted unit performance. The relationship of platoon leadership to performance was partially mediated through the unit's level of potency and cohesion. Implications, limitations, and future directions for leadership research are discussed.

The pace of change confronting organizations today has resulted in calls for more adaptive, flexible leadership. Adaptive leaders work more effectively in rapidly changing environments by helping to make sense of the challenges confronted by both leaders and followers and then appropriately responding to those challenges. Adaptive leaders work with their followers to generate creative solutions to complex problems, while also developing them to handle a broader range of leadership responsibilities (Bennis, 2001).

Bass (1985) labeled the type of adaptive leadership described above *transformational*. The literature accumulated on testing transformational leadership theory has provided general support for the hypothesized relationships between transformational leadership, transactional leadership, and performance (Avolio, 1999; Bass, 1998). For example, ratings of transformational leadership

were positively correlated with supervisory evaluations of managerial performance (Hater & Bass, 1988; Waldman, Bass, & Einstein, 1987), recommendations for promotion (Waldman, Bass, & Yammarino, 1990), research and development project team innovations (Keller, 1992), and percentage of financial goals achieved in strategic business units (Howell & Avolio, 1993).

Meta-analyses conducted by Lowe, Kroeck, and Sivasubramaniam (1996) and Patterson, Fuller, Kester, and Stringer (1995) have confirmed the positive relationship between transformational leadership and performance reported in the literature. Yet most of the studies included in these two meta-analyses were based on leadership and performance data collected at the same point in time, and typically from the same source. Lowe et al. reported that the effects of common source bias inflated the relationship between transformational leadership and performance reported by many previous authors. Although the estimated true score correlation was still positive, Lowe et al. indicated that it was considerably lower when ratings of leadership and performance were collected from different sources.

DeGroot, Kiker, and Cross (2000) completed a third meta-analysis of the transformational and transactional leadership literature, reconfirming the positive relationship between ratings of charismatic–transformational leadership and performance reported earlier. They also reported that the relationship between charismatic leadership and performance varied when leadership and performance were examined at an individual versus group level, concluding that “results show an effect size at the group level of analysis that is double in magnitude relative to the effect size at the individual level” (DeGroot et al., 2000, p. 363).

Although the literature on transformational and transactional leadership has grown rapidly over the past 15 years, only a handful of studies have examined how transformational and transactional leadership predict performance. For example, Howell and Avolio (1993) reported that transformational, but not transactional, leadership of financial managers positively predicted unit performance

---

Bernard M. Bass, Center for Leadership Studies and School of Management, Binghamton University; Bruce J. Avolio, Department of Management and College of Business Administration, University of Nebraska—Lincoln; Dong I. Jung, Department of Management, San Diego State University; Yair Berson, Institute for Technology and Enterprise, Polytechnic University.

Bernard M. Bass and Bruce J. Avolio served as co-principal investigators in a project (Contract DASW01-008) sponsored by the U.S. Army Research Institute for the Behavioral and Social Sciences that supported the collection of data used in this study. We thank retired Lieutenant General W. F. Ulmer and Colonels M. Shaler and W. M. Snodgrass for their active consultation in all phases of the project, as well as Wendy Clark. We also express our appreciation to the generals in command of the 10th Mountain and the 82d and 101st Airborne divisions for their cooperation and the officers and enlisted men. Finally, we thank Mike Drillings, who was our contract monitor at the Army Research Institute.

Correspondence concerning this article should be addressed to Bruce J. Avolio, Department of Management, 209 College of Business Administration, University of Nebraska, Lincoln, Nebraska 68588-0491. E-mail: bavolio2@unl.edu