## RESPONSE TO EDITORIAL BY BRYAN AND RAFFERTY

# RICHARD WOLFE, PATRICK M. WRIGHT, AND DENNIS L. SMART

he commentary on our article "Radical HRM Innovation and Competitive Advantage: The *Moneyball* Story" by Drs. Dick Bryan and Michael Rafferty provides a welcome opportunity to further explore the ideas we originally presented. The purpose of our article was "to investigate the *Moneyball* story to glean what lessons are contained therein . . . concerning innovation, resistance to change, and competitive advantage" (p. 112). The commentators' points focus on the particular innovation that was implemented by the Oakland A's—sabermetrics. Our response, therefore, also focuses on this aspect of our article.

While Dr. Bryan's and Dr. Rafferty's points were not laid out in a point-by-point manner, our reading indicates that they focus on three areas: generalizability, the criterion problem, and pricing. We address each of these independently.

## Generalizability

An underlying theme that runs through the Bryan and Rafferty commentary addresses the important issue of the generalizability of sabermetrics to the practice of HRM. The commentators question:

whether sabermetrics is useful or just a diversion in HRM. Certainly, the clean lines of competition in sports make for clear data. . . . These repetitions are not so obvious or consistent in many other workplaces.

Drs. Bryan and Rafferty are certainly correct that baseball, both as sport and as industry, differs greatly from the competitive environment and HRM issues faced by most organizations. It is important to note, however, that generalizability concerns often constrain radical innovation. Consider the Moneyball story, wherein those working within the established paradigm used the generalizability/applicability criticism to ignore the value of an outside perspective. Sabermetrics resulted from challenging baseball's extant paradigm by providing significant evidence that (1) the extant paradigm focused on the wrong player statistics and (2) different statistics and characteristics could be used for price and team performance advantages. Those within the establishment, however, ignored sabermetrics. Their criticism could easily be construed as arguing that the logic of derivatives could not be generalized to baseball. Obviously, this criticism among the baseball establishment was wrong.

The same basic logic that underlies derivative pricing is now being applied to strategic decision making through "real options" theory (Bowman & Hurry, 1993; Dixit & Pindyck, 1994, McGrath, 1997, 1999; Kogut & Kulatilaka, 2001). Real options logic is now also being generalized with regard to human resource investments (Bhattacharya & Wright, 2005; Cottom-Clark, Badders, & Wright, 2005). These applications generalize the logic of real options to HRM decisions.

Correspondence to: Richard Wolfe, Associate Professor, Sport Management, Division of Kinesiology, University of Michigan, Ann Arbor, MI 48109-2214, tel.: 734.615.5218, e-mail: wolfer@umich.edu



#### The Criterion Problem

A more specific question related to generalizability raised by Bryan and Rafferty deals with what industrial/organizational (I/O) psychologists have termed "the criterion problem." The authors write:

it is one thing to find new measures of performance, but if an employee rates well by some criteria and less well by others, what is the appropriate weighting?

We address this question from two perspectives. First, while the multidimensionality of performance is a legitimate concern, multidimensional performance can be measured in work organizations. Early research within I/O psychology frequently used measures of "overall performance," often ones that focused on a number of traits or attributes. Most often, performance was defined by having subject matter experts generate a list of the tasks, duties, and responsibilities (TDRs) and the knowledge, skills, and abilities (KSAs) necessary to perform the job. Resultant performance-appraisal techniques involved rating the TDRs and KSAs and summing for an overall performance measure.

Certainly, this approach presented initial difficulties in (1) properly weighting the various aspects of performance, (2) accounting for aspects of performance that did not fit neatly into a predetermined category, and (3) truly accounting for the multidimensionality of performance. Vast gains have been made in this area. For instance, the Army's Project A provided a number of examples of how to define, assess, and predict a multidimensional model of performance (Campbell, Ford, et al., 1990; Campbell, McHenry, & Wise, 1990). Also, within the utility literature, the Cascio-Ramos estimate of performance in dollars (CREPID) method emerged as an approach to assess the value of different aspects of performance (Cascio & Ramos, 1986).

Second, we certainly acknowledge that the *Moneyball* approach, whether applied within baseball or other settings, is not perfect. However, even in situations where the multiple aspects of performance cannot be

assessed and/or appropriately weighted, identifying and exploiting undervalued characteristics of employees can still result in improved performance. For instance, Ployhart, Weekley, and Ramsey (2005) provide data suggesting that retail stores possessing human capital with a higher level of "service orientation" display significantly higher performance than those with lower levels. In spite of the lack of specific attention to the multidimensionality of performance, this research demonstrates that performance can be improved by attending to at least one dimension of that performance. Returning to Moneyball and sabermetrics, "The solution wasn't perfect, it was just better" (Lewis, 2003, p. 135).

### **Pricing**

Drs. Bryan and Rafferty suggest that for derivative pricing to have applicability, one must not only be able to separate out the different dimensions of performance, but also to accurately price those dimensions:

[The Oakland A's] have the right collective characteristics at the right price. In order to achieve this correct combination, it is necessary to have a metric to measure exactly the relative values of the various performance attributes.

While *Moneyball* describes some specific techniques used by the A's to attain a high level of performance at an even higher level of efficiency, the value of *Moneyball* to HRM practitioners is not to provide point estimates of values to produce a particular level of profitability. Rather, the value stems from the demonstration that more precise, not perfectly precise, identification and measurement of undervalued attributes can provide competitive advantage.

The seminal question that we invite others to consider is not whether we can perfectly measure the attributes that lead to performance in modern workplaces, but whether the logic of *Moneyball* can improve such measurement over current practice. We believe that the answer is yes.

RICHARD WOLFE is an associate professor and the director of the Michigan Center for Sport Management in the Division of Kinesiology at the University of Michigan. He holds a PhD from the Michigan Business School. Research that Professor Wolfe is currently involved in includes: Managerial Efficiency in Major League Baseball; The Turn-Around of Sport Franchises; The Application of the Consumer Satisfaction, Loyalty, Profitability Model to Sport; and Professional Sports and Corporate Social Responsibility. Related research has focused on organizational innovation and stakeholder management. His publications have appeared in journals such as Organization Science, Human Resource Management, the Journal of Management, the Journal of Sport Management, the Academy of Management Executive, the Journal of Applied Behavioral Science, the Journal of Management Inquiry, the Journal of Management Studies, and Business and Society.

**PATRICK M. WRIGHT** is a professor of human resource management and the director of the Center for Advanced Human Resource Studies (CAHRS) in the School of Industrial and Labor Relations at Cornell University. Professor Wright teaches, conducts research, and consults in the area of strategic human resource management. He has published over 60 research articles and book chapters and serves on seven editorial boards, as well as on the board of directors for the Society for Human Resource Management Foundation. He has done executive development and consulting work for more than 50 corporations.

**DENNIS L. SMART** is an associate professor of management in the McCoy College of Business at Texas State University–San Marcos. He received his PhD in strategic management from Texas A&M University. His current research interests include the identification and development of competitive advantages through innovation and entrepreneurial activities in large organizations, organizational restructuring/diversification strategies, leadership, and sport management–related issues. Previous research has been published in a variety of journals including the *Academy of Management Journal*, *Advances in Strategic Management*, the *Journal of Management*, the *Journal of Management Inquiry*, and the *Journal of Sports Management*.

#### **REFERENCES**

- Bhattacharya, M., & Wright, P. (2005). Managing human assets in an uncertain world: Applying real options theory to HRM. International Journal of Human Resource Management, 16, 929–948.
- Bowman, E. H., & Hurry, D. (1993). Strategy through the options lens: An integrated view of resource investments and the incremental-choice process. Academy of Management Review, 18, 760–782.
- Campbell, C., Ford, P., Rumsey, M., Pulakos, E., Borman, W., Felker, D., et al. (1990). Development of multiple job performance measures in a representative sample of jobs. Personnel Psychology, 43, 247–276.
- Campbell, J., McHenry, J., & Wise, L. (1990). Modeling job performance in a population of jobs. Personnel Psychology, 43, 313–334.
- Cascio, W., & Ramos, R. (1986). Development and application of a new method for assessing job per-

- formance in behavioral/economic terms. Journal of Applied Psychology. 71, 20–28.
- Cottom-Clark, L., Badders, B., & Wright, P. (2005). Uncertainty and human capital decisions: Traditional valuation methods and real options logic. Working paper. Center for Advanced Human Resource Studies, School of Industrial and Labor Relations, Cornell University, Ithaca, NY.
- Dixit, A., & Pindyck, R. (1994). Investment under uncertainty. Princeton, NJ: Princeton University Press.
- Kogut, B., & Kulatilaka, N. (2001). Capabilities as real options. Organization Science, 12, 744–758.
- Lewis, M. M. (2003). Moneyball: The art of winning an unfair game. New York: Norton.
- McGrath, R. G. (1997). A real options logic for initiating technology positioning investments. Academy of Management Review, 22, 974–996.
- McGrath, R. G. (1999). Falling forward: Real options

reasoning and entrepreneurial failure. Academy of Management Review, 24, 13–30.

Ployhart, R. E., Weekley, J. A., & Ramsey, J. (2005). A

longitudinal examination of human capitals consequences. Symposium presented at the Annual Conference for the Academy of Management, Honolulu, HI.