

Educating New Management Specialists From an Evidence-Based Perspective: A Proposal

GEORGE BEAR GRAEN
Professor Emeritus, University of Illinois

Rousseau and McCarthy (2007) performed a significant service to management education by outlining the history of and current circumstance for the use of evidence-based management (EBM) by U.S.-educated and trained managers: "EBM means managerial decisions and organizational practices informed by the best available scientific evidence" (84). Although these authors contrast practices in medicine and education with those in management, they also might have contrasted management with some of the so-called functional areas of business in the same college or school, namely, finance (economics), and operations (industrial engineering), or even industrial organizational psychology (applied psychology), and electrical engineering (physics and chemistry) that are all guided by sets of principles derived from a body of empirical evidence. Compared to these professions, management does a poor job of educating students in the scientific method or training them to employ evidence generated by this method to inform their decisions. Why is this the case? What do specialists have that generalists lack in professional education?

Our management graduates, who hold either a BS or MBA, from even the elite business programs have too little exposure to either the scientific method or EBM, and they tend to avoid any courses that may touch on what they consider "doctoral subjects" (Walshe & Rundall, 2001; Rousseau, 2005, 2006a,b; Rousseau & McCarthy, 2007; Pfeffer & Sutton, 2006). We, as management educators, have failed to insist that before graduation a rigorous course on the scientific method and EBM in addition to modern applied statistics be completed (Barnett, 2007; Goldstein & Hazy, 2006). Consequently, we have certified as qualified to begin their careers in management generations of "EBM-challenged" people. Our graduating students of management are at a disadvantage relative to those in applied science, medicine, engineering, applied psychology, and the above functional areas of business (Pfeffer & Sutton, 2006). These future competitors to management graduates learn evidence-based professional practices and understand how to use them along with professional libraries and the Internet search engines that can reinforce evidence-based practice.

Part of this failure is due to the fact that we, as management faculty, demurred to total quality

control theory, which directed us to treat our students as our "knowledgeable customers" and to assume that such customers were always correct (Ferris, 2002). In sum, we shirked our primary responsibility to convince students that our courses were evidence-based and designed to prepare management students to understand EBM well enough to use it in their organizations to earn their pay as professionals. Instead, we allowed them to believe that any famous manager or consultant is to be believed when he or she pontificates about an "ego-based" management theory and the false assertion that their firsthand experience is better than EBM (Mintzberg, 2004, 2005). Blind faith in management gurus may have its own intrinsic rewards for our students, but seldom does pure ego-based theory serve their organizations or their careers very well in the long run. We, as management faculty, have to bear most of the blame for being led astray by listening to our students pleas to avoid EBM and to require course readings of the popular management gurus even though we knew that their so-called popular research was flawed, for example, Herzberg, quality groups, job enrichment, MBO, etcetera, etcetera, etcetera. After

TABLE 1
Comparison of Professions of General Management and I/O Psychology and Electrical Engineering

Features	General Management	I/O Psychology Electrical Engineering
Ancestry . . .	DIY lists by retired executives.	EB science of psychology and electricity applied to organizations.
Decision Constraints . . .	Low control over practice. EB is optional.	High control over practice. EB practice is normative.
Professional Training . . .	Weak scientific method or data analysis training.	Strong scientific method and data analysis training.
Code of Ethics Certification . . .	No threat/No license or expulsion for cause.	Loss of license and expulsion from professional societies.
Evidence-Based Culture . . .	Often absent.	Reinforced in many ways, through in-service education, research involvement.
Updating/On-Going Access to Research . . .	Often limited.	Numerous sources, including on-line collaboration, journal, etc.
Participation Research . . .	Limited today.	Long established and on-going part of practice.
Professional Identity . . .	Generalist: Jack of all trades.	Specialist: Master of one.

Note. Adapted from Rousseau & McCarthy, (2007).

all, we received better course evaluations for this.

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A COMPARISON

Let us compare our management profession to that of industrial and organizational psychology (IOP) and electrical engineering (EE). In reference to Rousseau and McCarthy (2007), IOP and EE are positioned somewhere between education and medicine in terms of evidence-based teaching. Therefore, management can be expected to show poorly compared to IOP and EE; however, we cannot throw up our hands and stop trying to make management a respected professional specialty. It is clear that we cannot simply change our teaching of management by adopting something like the psychology or engineering professional schools.

Some of our challenges in promoting evidence-based management are shown in Table 1, which compares management and IOP and EE on eight features. Let's go down the list of features. First, ancestries are quite different. Management education grew out of a need to justify the hierarchy in large organizations or giving orders to lower level employees (Leavitt, 2007). This certification was given for recalling the "principles" and accompanying "war stories" of retired managers who often served as early business school faculty.

In contrast, applied psychology grew out of need first by the military and then by industry to select, train, motivate, and lead employees at all levels and all kinds of jobs. Psychologists were posted in the military during both WWI and WWII to apply their evidence-based methods to solve emerging problems. Gradually, organizations of many kinds began to hire applied psychologists for human resource decision support and later for executive decision support. Today we have one of the finest militaries in the world, partly due to the EB-decision support of applied psychologists.

EE grew from a demand in industry for professionals who could harness the potential of electric power. Such power can be dangerous if handled without understanding the principles of science and their proper applications. Today we are a leader in advanced use of this power.

Decision constraints imposed by higher management produce low control by practitioners (see, e.g., Enron and Associate cases). EBM is usually employed at the whim of the higher ups. The societies of IOP and EE maintain higher control on organizational practice, and EB practice is required by case law. Professional education and training must cover the legal context. In addition, the APA and SIOP codes of ethical behavior call for the investigation of any apparent violation and provide penalties. Also, state licensing and published criteria of proper professional behavior have proven enforceable in the courts (Landy, 2005).

Acceptance of an evidence-based culture must be carefully established to include ethical standards enforceable in a court of law, recognized specialist education and training, evidence-based

decision support activities, a professional society, and required periodic professional updating and research involvement. On all these features, the management profession is deficient. The professional identities of the IOP and EE practitioners are well defined as valuable specialists, but that of the management graduate is as a jack of all trades and master of none. If management is to be more than the major that is considered the default for those who drop out of the more rigorous specialties in the business school, it must drop the soft courses and require the difficult specialist courses, such as data analysis for management decision support, scientific methods applied to management studies, critical networking and modeling analysis of research evidence, use of search engines and databases, project management, and applying EBM to new problems. Management can be made into a respectable profession, but we must develop a plan and collectively make it happen. If this drives away the lower tail of the student distribution into easier majors, this is part of the price of establishing a new profession.

Returning to the opening question of why we should demand evidence-based understanding by our management majors, one answer is that we are tired of graduating young people with a degree in management who are naive enough to believe they have a profession, when they possess little EB knowledge and skills that are worth professional-level compensation (Pfeffer & Fong, 2002; Pfeffer & Sutton, 2006).

Isn't it time that we admitted that without a strong evidence base all theories are pure speculation and that it takes a lot of work by independent researchers to develop a strong evidence base for a single theory? Once it has been established it needs to be applied in preference to Joe Schmo's completely untested ego theory (Ghoshal, 2005). We know that theories in management are easy to write, but validating them is difficult (Barnett, 2007). Let us teach our management students that EBM is the way to solve management problems in organizations and that the "theory of the month" does not deserve to be taken as seriously as EBM (Van de Ven & Schomaker, 2002).

Management by objectives (MBO) is an example of an underspecified ego program by Locke and Latham, (1991), that fails to integrate the EBM theory of goal acceptance. What often seems obvious to practicing managers about goal acceptance turns out upon testing to be underspecified. Klein and Kim (1998) found in retail sales that high LMX people can commit to either hard or easy goals, and subsequently, achieve their objectives. It is clear that the department managers' leadership

behavior made a context difference. Although the retail store managers assumed that their sales incentive system was working, it was being mediated by their department heads and their salespeople for reasons of properly rewarding the stars when the incentive system failed them. This is a good example of field research informing managers regarding a systemic change to make it more productive.

Finally, great evidence bases have been developed in the leadership area, as witnessed by the EBM, prescriptive contingency theories presented at the Global Leadership Conference at West Point, in April 2007. One difficulty with the application of this validated knowledge is that a manager must be educated to understand research-derived principles and EBM to use it effectively (DeAngelis, 2005). Unless the manager was educated in science, engineering, or the above functional areas of business, the manager has no ticket for the fast track. Let's change our system to take advantage of EBM for the sake of our students, who may be missing a critical piece of their education.

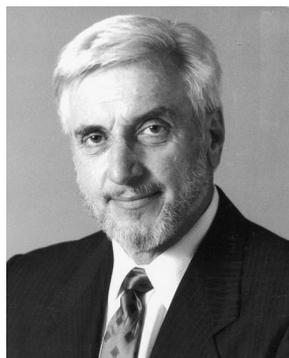
CONCLUSION

In conclusion, it would be unfortunate if the evidence-based management literature that is based on empirically tested practices would continue to benefit primarily the established professions and not a profession of EBM. We foolishly let "scientific management" slip through our grasp and into those of industrial engineering. We in the "EBM as a profession" interest group understand that this is improbable until we define our specialty. I propose that we carve out the most fruitful domain from the present domain of general management and leave the rest to the generalists. Maybe this would convince our best graduates to make a career commitment to making a difference by way of modern management. My crystal ball suggests that in the near future top management teams will be seeking management assistants trained as specialists in implementing major changes by applying EBM relevant to overcoming resistance to change (see Graen & Graen, 2003–2009). Finally, I agree with Leavitt (2007) that we have a moral obligation to serve the future welfare of our young charges above self.

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George Graen began his career at the University of Minnesota (Minneapolis), where he received his PhD in organizational psychology. In 1967 Graen joined the Psychology and Industrial Relations Faculty of the University of Illinois (Champaign). During his tenure at Illinois, he received a Distinguished International Exchange Professorship and spent 1972 at Keio University in Tokyo. He left the University of Illinois in 1977 to found the University of Cincinnati Center, continuing his research in Japan after receiving the first Johnson's Wax Fulbright Research Fellowship in 1984. For the last 9 years he and his cross-cultural research and consulting team have been engaged in projects to understand joint venture businesses in China, Hong Kong, and Taiwan and to help them build effective local "third cultures" to enhance their competitiveness. In 1997 he was named the Gene Brauns Endowed Chair Professor of International Management at the University of Louisiana.

Graen is a Fellow of the American Psychological Society and enjoys membership in other professional societies including the Academy of Management, the International Association of Applied Psychology, the American Association for the Advancement of Science, the Society of Organizational Behavior, and the Association of Japanese Business Studies (President, 1992–1995).

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