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Patron of the Respected World
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Patron of the Sacred World
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Evidence-Based Management: A Business Necessity for Hispanics

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Evidence-Based Management (EBMgmt) is a movement to integrate best-available evidence, manager's judgment and stakeholder values in business decision making. Money is being "left at the table" whenever a manager makes a decision that is not consistent with the best evidence made available by business research. To the extent that Hispanic managers—especially females—may be affected by "tokenism" phenomena such as increased visibility, heightened differentiation, and distortion of their individual characteristics so they fit stereotypes (Kanter, 1977a; 1977b), it is crucial for their careers that their decisions be informed by the best-available evidence. This article synthesizes current developments in EBMgmt within the context of minority status that many Hispanic professionals hold and offers suggestions aimed at making EBMgmt a reality.

Informed decisions supported by methodically collected data will generate better results for any manager. Evidence-Based Management (EBMgmt) is a new initiative to help managers make better decisions which integrates various data collection processes including research evidence, clinical expertise and patient values (cf. Sackett, Strauss, Richardson, Rosenberg & Haynes, 2000; Evidence-Based Management Conference, 2007). This emerging scientific approach to business decision-making has been criticized from several perspectives that are summarized in this paper, but it continues to show great promise, in particular for Hispanic managers, whose minority status may place them under the spotlight in ways that non-minorities can disregard.

The business world is not making good use of scientific social research (cf. Pfeffer & Sutton 2006a, 2006b; Rousseau, 2006a; Rynes, Brown & Colbert, 2002; Rynes, Giluk & Brown, 2007). Resources are not optimized and money is being "left at the table" whenever a manager makes a decision that is not consistent with the best evidence that has been made available by business research. As Pfeffer and Sutton (2006a, 2006b) recently summarized, organizations of all sizes and in a variety of industries make bad business decisions—e.g., botched mergers and acquisitions, inadequate use of incentives, failed change management initiatives and talent acquisitions gone awry—overlooking existing published studies recommending specific actions or practices that have stood scientific scrutiny. All too

often, business decisions are made based on “gut feelings,” tradition, bandwagon pressures, superficial “best practices,” and even political pressure. Pfeffer and Sutton (2006a) have named the following “substitutes that managers [...] use [in lieu of] the best evidence—obsolete knowledge, personal experience, specialist skills, hype, dogma, and mindless mimicry of top performers” (p. 67). Table 1 identifies and illustrates some of the problematic business decision models that tend NOT to be based in the best available scientific evidence. It is not hard to imagine how the use of such flawed decision making models will often lead to sub-optimal solutions that “leave money at the table” and put their organizations at risk of being overcome by their competitors. Also, the managers who champion such decisions are at risk of creating inefficiencies in the organization under their watch, with potentially disastrous consequences for their careers.

To compound the problem for Hispanic managers in particular—women probably in a more acute way—minority managers seem to run an even higher risk of being called out after making a bad or even a sub-optimal decision. Kanter’s (1977a, 1977b) research on the dynamics of tokenism¹ suggested that, when a member of an organization represents a demographic category found in a proportion that is lower than 15% (about one of every six individuals), they tend to experience phenomena such as increased visibility, heightened expectations, and encapsulation into stereotypical roles. Coincidentally, nation-wide, Hispanics compose close to 15% of the workforce (Blancero, DelCampo & Marron, 2007). Said differently, minority managers—especially if their demographic group has a lower status than the majority group (McDonald, Toussaint & Schweiger, 2004)—are more likely to be highly noticeable in their firms; their performance is probably going to be measured with a higher standard, and the smallest disappointment in their work may become a stigmatizing incident for the rest of their careers. Therefore, I

TABLE 1.
Business Decision Models NOT Based in Best Available Scientific Evidence

Problematic model	Illustrations
Individual preferences such as gut feelings, obsolete knowledge, personal experience, and specialist skills	<ul style="list-style-type: none"> ▪ “I <i>feel</i> that we should...” ▪ “What I learned in school (30 years ago) is that...” ▪ “This has always worked in the organizations I have been...” ▪ “I can help with the following tools in which I specialize...” ▪ “To a hammer, everything looks like a nail” (Pfeffer & Sutton, 2006a, p. 65)
Tradition	<ul style="list-style-type: none"> ▪ “This is the way things are done around here.” ▪ “If it ain’t broke, don’t fix it!”
Bandwagon, dogma, ideology	<ul style="list-style-type: none"> ▪ “The industry leader started this project several months ago!” ▪ “All of our competitors are starting this too!” ▪ “Our company’s first and foremost obligation is toward...”
Superficial “best practice,” mimicry of top performers, hype	<ul style="list-style-type: none"> ▪ “If this practice worked for HP [or Citi, or any other highly respected firm, regardless of industry], why wouldn’t it work here?” ▪ “I just found a report/attended a conference/read a book that convinced me that we should...” ▪ “Dr. So-and-so from Most Prestigious University (or consulting firm) just wrote this in her latest book...”
Political pressures	<ul style="list-style-type: none"> ▪ “Well, you will be on your own if you don’t consent to this initiative...” ▪ “The boss is really sold out on this; you better choose other battles...”

suggest in this article, for minority managers, the use of best-available evidence in their day-to-day work is not a luxury or an option, but a business necessity.

This article is organized as follows. First, a definition and history of Evidence-Based Management (EBMgmt) are presented, along with illustrations that justify its need. Then, a contribution to the EBMgmt literature is offered by identifying some of the criticisms that have been leveraged toward EBMgmt. In the second section, I present the case that minority managers' careers are at risk if they do not use EBMgmt and offer suggestions that are intended to help make EBMgmt a standard practice among Hispanic managers—and non-Hispanics as well!

What is Evidence-Based Management?

Evidence-Based Management can be thought of as an adaptation of Sackett et al's (2000) definition of Evidence-Based Medicine (EBM) for Management. They state that EBM is "the integration of best research evidence with clinical expertise and patient values" (p. 1) in making decisions. Three major components are identified: (a) the practicing professional (the clinical expert for EBM, the manager for EBMgmt), (b) scientific or "best research" evidence informing the profession, and (c) the focal entity for the practitioner (patients for EBM, employees and their organizations for EBMgmt). Championing this theme in the business world, a combination of a recently published *Harvard Business Review* article and book (Pfeffer & Sutton, 2006a, 2006b) has acquired a life of its own via a website, with practitioners, consultants, and academics adding commentary, research briefs and other forms of engaged participation (see Pfeffer & Sutton, 2007a). In academic circles, an Evidence-Based Management Conference (2007) has been meeting to identify the ways in which EBMgmt can be made a reality, fueled by publications from highly influential voices (cf. Learmonth, 2006; Rousseau, 2006a, 2006b, 2007; Rousseau & McCarthy, 2007; Rousseau, Manning & Denyer, 2008; Rynes et al., 2007; Tranfield, Denyer & Smart, 2003). Together, these publications prove how managers from small to large companies in all management fields have been making sub-optimal (when not completely wrong) decisions by neglecting the best available scientific evidence. From human resources to strategy, including

change management and managerial leadership, billions of dollars are "left on the table" or even wasted when managers use any of the decision models illustrated in Table 1 instead of business practices tested by business researchers.

A skeptic's interpretation of these developments might be that they are signs of a fad that will last only until the next management book *du jour* comes along. However, it is instructive to notice that actual practice of evidence-based medicine has recently become possible in an important part due to Internet-based repositories of scientific evidence such as the "Cochrane Collaboration" (2007). In the social, behavioral and educational fields, a sister organization, the "Campbell Collaboration" (2007) has been formed more recently, ostensibly with the purposes of generating systematic reviews as well as disseminating its results online. More relevantly for the business disciplines, influential members from the Academy of Management (arguably the most prominent group of management professors, researchers, and consultants) have recently convened a series of meetings with the purpose of forming an Evidence-Based Management Collaboration:

...a community-of-practice to make evidence-informed management a reality. [Its] mission is to close the gap between management research and the ways practitioners make managerial and organizational decisions and educators teach organizational behavior, theory, strategy and human resources management. (Evidence-Based Management Conference, 2007).

Not only has this conference been able to bring together highly influential researchers (including several past-presidents of the Academy of Management, representatives from several of its divisions, journal editors and professors that have adopted early the evidence-based perspective in their teaching and research), but also practicing managers and even the publisher for the Cochrane Collaboration. To sum up, if a group like this one is unable to create the infrastructure and momentum necessary to launch an Evidence-Based Management Collaborative to aid managers in the way that the Cochrane or the Campbell Collaborations are doing for Health and Behavioral practitioners, it is unlikely that another organization will be able to do it—at least in the short term.

¹In this article, the terms "solo" and "token" are used interchangeably, although for some researchers, "token" implies that the individual has been selected because of the characteristic that makes them different from the rest of the group, not because of the individual's task-related merits. In addition, solo implies that, in a given group, there is only one representative of the focal individual's demographic classification, whereas token allows for several representatives as it is the ratio or proportion of individuals that hold such classification that define the status.

The Need for EBMgmt

As stated above, Pfeffer and Sutton's (2006a, 2006b) work has been showing convincingly that many managers are making many business decisions without adequate inclusion of well-established research findings. Their writings include examples of sub-optimal decisions in business disciplines like strategy, change management, leadership, and human resources (compensation, motivation, selection, and work-life balance). Even if a few of their statements, such as their purported low importance of pay as a motivational tool, have been found to show weaknesses (Olivas-Luján, 2007; Rousseau et al., 2008), most of the evidence they marshal drives the point that indeed, there are many business decisions made sub-optimally, to the detriment of the incumbents' careers, their organizations, and society at large.

In parallel, in academic circles, there is a growing discomfort with how business research is currently used by practitioners (AACSB International, 2007; Skapinker, 2008). Rynes et al. (2002), Pfeffer and Fong (2002), and Van de Ven and Johnson (2006) have expressed their strong reservations about the present use of business research. Rynes and her colleagues report seven human resource practices for which a sample of 959 HR professionals had beliefs that actually contradict research findings. Pfeffer and Fong (2002) lament the fact that very few books written by academics have made it to the *Business Week's Best Business Books* lists in the 1990s; most top selling business books were written by CEOs, journalists, and consultants, but not business *researchers*. Finally, Van de Ven and Johnson (2006) recognize that there is a failure in the transfer of knowledge in business disciplines such as Human Resources (Rynes et al., 2002), and general management (Rogers, 2003; Tranfield et al., 2003).

Three very concrete examples can be found in a survey of HR managers (Rynes et al., 2002; Rynes et al., 2007). A majority of respondents in the study either disagreed with or showed lack of knowledge of research findings that have been supported by recent research. Among these neglected findings are: (a) that *intelligence* is a better predictor of employee performance than *conscientiousness*, (b) that *personality* (including integrity tests) is related to job *performance*, and (c) that *goal setting* is a highly effective motivational tool (Rynes et al., 2007). To make the case even more pressing, a substantial number of subject matter experts had identified these (along with a few others not included in the report) as "most fundamental findings from human resources research that all practicing managers should know" (p. 989). Clearly, the implication is that there

are professional managers who may be basing their day-to-day hiring and goal setting decisions on unsubstantiated beliefs, and their companies are probably paying the cost of those decisions through a workforce that could have been more adequately chosen—had the best-available selection tools been used—and is probably not as motivated as they could be—had the best, evidence-supported motivational tools been prevalent. Hard to quantify as the cost might be, it is clear that business owners and customers deserve a more professional use of their resources by the agents that are hired to make the organizations as competitive as possible.

Nevertheless, before EBMgmt can be a reality the way EBM (Medicine) already is, it has to overcome several obstacles that, to date, can only be found in a wide variety of sources. The following section contributes to the EBMgmt, research-practice gap and related literatures by offering a summary of the obstacles that must be overcome to make it an actionable tool for managers.

Main Problems with EBMgmt Identified in the Extant Literature

In the short time that EBMgmt has been contemplated as a potential solution to bridge the research-practice gap, a number of warnings have been published in a variety of sources, including academic journals, business publications, and conference proceedings that I summarize here. There are three overarching themes weaving along these commentaries: (a) The business disciplines are not ready to offer actionable advice; (b) It is not practical for managers to include research findings in their daily work; and (c) There are business situations for which scientific evidence simply cannot offer advice. Without claiming to be exhaustive, the following section details these warnings, also depicted in Table 2. Four problems may be included in the first overarching theme, dealing with readiness of the business disciplines.

Overarching Theme (a): Business Researchers are not ready to Offer Actionable Advice

1). EBMgmt cannot be put into practice

The first EBMgmt problem is whether it can be put into practice at all (Baack, 2007; Miller, 2007; Williams, 2007). The purest form of EBMgmt would entail managers that are familiar with the process, language and techniques of management research, frequently accessing the most recent and relevant scientific publications in the domain of their concern, to inform their decision-making process with research findings of the highest

TABLE 2.

Summary of Identified Problems in the EBMgmt Literature

Problem	Literature that Identifies the Problem
Overarching theme (a): The business disciplines are not ready to offer actionable advice	
1). EBMgmt cannot be put into practice	<ul style="list-style-type: none"> ▪ “Pfeffer and Sutton’s most important conceptual contributions can be also very difficult to put into practice” (Baack, 2007; p. 139) ▪ [E]vidence for decision making is often contradictory, not always easy to make sense of (...), overwhelming, and subject to subjective interpretation” (Miller, 2007; p. 142) ▪ Pfeffer and Sutton’s book “does not provide the reader with the complete knowledge regarding evidence-based management” (Williams, 2007; p. 144)
2). What is evidence?	<ul style="list-style-type: none"> ▪ There is no consensus regarding what the “best logic and evidence” (Baack, 2007; p. 139) is ▪ “[T]he troubling status of evidence is not questioned here” (Miller, 2007; p. 142)
3). EBMgmt will likely be biased toward “statistically significant” findings	<ul style="list-style-type: none"> ▪ “What concerns me more than the lack of a comprehensive review is the inability of these authors (or any author) to examine the manuscripts that did not get published” (Williams, 2007; p. 143). ▪ “We need a public outlet for those manuscripts sitting in our filing cabinets because the null hypothesis was not rejected—especially when these manuscripts provide evidence supporting management practice” (Williams, 2007; p. 144).
4). EBMgmt will be valid mostly in “Western” contexts	<ul style="list-style-type: none"> ▪ “There is a single reference to this in <i>Hard Facts</i> when, on page 208, ... authors note that there is a ‘Western cultural stereotype of leadership.’ Apart from this, there is no allusion to the debate about cultural differentiation....” (Miller, 2007; p. 142)
Overarching theme (b): It is not practical for managers to include research findings in their daily work	
5). EBMgmt may be misused by managers or external agencies as a way to impose their beliefs, preferences, or ideologies	<ul style="list-style-type: none"> ▪ “It can be used as a club (the kind with a nail in it) to force compliance with a standard that may not be universally applicable” (Rousseau, 2006a; p. 267); she reports that the Cochrane collaboration’s recommendations have been enforced inappropriately by the British health care system (2006a, citing Eysenbach & Kummervold, 2005; Rousseau, 2006b).
6). In Evidence-Based Medicine, the patient’s values and preferences are to be taken into account; what about EBMgmt?	<ul style="list-style-type: none"> ▪ EBM is “the integration of best research evidence with clinical expertise and patient values” (Sackett et al., 2000; p. 1; emphasis added).
Overarching theme (c): There are business situations for which scientific evidence cannot (or should not) offer advice	
7). EBMgmt excludes managerial idiosyncratic strengths	<ul style="list-style-type: none"> ▪ No provisions are made for “the value of intuition and experience, and the relationship between judgment and fact. How do we, in fact, assess and understand the value of gut feeling, intuition, or experience that may not necessarily be directly tied to ‘hard facts?’” (Baack, 2007; p. 140)
8). “Logic and careful analyses” are offered as substitutes when “Evidence” is insufficient	<p>Compare:</p> <ul style="list-style-type: none"> ▪ “Fact gathering... doesn’t necessarily lead decision makers to use social science knowledge... in interpreting [sic] these facts” (Rousseau, 2006a; p. 260). <p>with the following two:</p> <ul style="list-style-type: none"> ▪ “In the absence of empirical data the use of logic to examine a particular organizational ill can serve as the ‘evidence’ in evidence-based management” (Dierdorff, 2007; p. 144). ▪ “Thoughtful consideration of the assumptions that underpin interventions is often sufficient to reproduce the insights gained from piles of empirical research... sometimes careful analysis can get you almost to the same place” (Pfeffer & Sutton, 2006a; p. 24; emphasis added).
9). EBMgmt may be misused by researchers to favor certain epistemological approaches	<ul style="list-style-type: none"> ▪ “We are all entitled to our own opinions, but not to our own facts” (Sherman, 2002; p. 223, cited in Rousseau, 2006a; p. 258) ▪ “Evidence-based management... is not a ‘new’ way of making decisions but the privileging of a particular form of evidence – research, and specifically quantitative research” (Arndt & Bigelow, 2007; p. 5) ▪ “It seems that in evidence-based management some research traditions get written out so that ‘the evidence’ can be presented in ways deemed useful for decision making” (Learmonth, 2006; p. 1090)

quality. Rousseu (2006a) offers examples of managers that make frequent use of libraries and other forms of dissemination of scientific knowledge (John Zanardelli of Asbury Heights) and Pfeffer and Sutton (2006a) name CEOs whose companies customarily and systematically run practical experiments to fine tune their management practices (e.g., Gary Loveman of Harrah's Entertainment, Kent Thiry of DaVita). Offering a more generalizable argument, Rynes et al. (2002, p. 93) report that "Terpstra and Rozell [1997] found that companies whose HR professionals read the academic research literature have higher financial performance than those that do not."

Still, even when managers have the time, resources, and motivation to find access to and scour the most recently published research addressing issues they have to solve, scientific evidence tends to be offered in a way that is not easily understandable

no other incentive or motivational technique comes even close to money with respect to its instrumental value" (Rynes et al., 2002, p. 100).

On the other hand, Pfeffer and Sutton (2006a) dedicate a chapter in their book to show that financial incentives are not a major driver of company performance. Their argument appears to be that an organizational emphasis on salaries and wages is more costly than beneficial. Among their strongly-defended contentions: money might attract the wrong kind of employees; variable pay may lead to pay dispersion and this to lower performance; money signals what is important for an organization in too blunt a manner; and, while incentives motivate, they often foster the wrong behavior (for details, see chapter five in Pfeffer & Sutton, 2006a). This example takes us to the next problem.

"...scientific evidence tends to be offered in a way that is not easily understandable but with rigorous, scientific training. Journal articles tend to be written using heavy doses of specialized jargon that is not easy to interpret, let alone use."

but with rigorous, scientific training. Journal articles tend to be written using heavy doses of specialized jargon that is not easy to interpret, let alone use. To compound the problem, decision makers might sometimes find that management research sometimes is equivocal on very substantial issues, as might be the case of the importance of pay (cf. Rynes et al., 2002; Pfeffer & Sutton, 2006a; Olivas-Luján, 2007; Rousseau et al., 2008). One of the seven HR practices for which Rynes and her colleagues found a gap between managers' beliefs and research findings deals with how important pay is for them—fifty-six per cent of participants in their study agreed with the statement "Surveys that directly ask employees how important pay is to them are likely to overestimate pay's true importance in employees' actual decisions" (2002, p. 99). These researchers state that *under-reporting* pay's importance is more frequent than *over-reporting*, in the process of asserting that pay is a crucial factor in HR management. They marshal several indications that include studies and even a meta-analysis to back Locke et al. (1980)'s assertion that "Money is the crucial incentive..."

2). What is Evidence?

What is a manager to do when some recent and relevant research of the highest reputation is contradicted by other well supported studies? While some of the "evidence" offered by Pfeffer and Sutton is more consistent with Rynes et al. than initially meets the eye (i.e., the questions are asked from different perspectives), this example shows the second criticism that has been leveraged toward EBMgmt: quite often, available evidence is hard to find or even equivocal; it may point in more than one direction. Another example comes from the e-HRM literature, which studies the use of information technologies for Human Resource management; Strohmeier (2006) has also found contradictory consequences of implementation of technology for HR purposes. In some cases, costs are lowered, in others augmented; decision authority as a result of automation is centralized sometimes, others decentralized. To sum up, there are problems for which the business disciplines do not currently have a final answer—but they do have systematic methods to shed light on the issues.



Alfredo Arreguin

Some types of arguments are favored over others. To begin, Pfeffer and Sutton advocate peer-reviewed studies as “the gold standard of mainstream science because the results have been reviewed and critically read by experts” (2006c, p. 19). Rousseau and McCarthy (2007, p. 91) state that “meta-analyses and systematic literature reviews are important not only to advance science but also to support evidence-based textbooks and management practice.” Also, while Rousseau acknowledges that “cause-effect connections in organizational research are not as readily subject to controlled experiment” (2006b, p. 1091), she discounts “experience, wisdom, or personal credentials as a basis for asserting what works” (2006a, p. 258) and provides guidance by invoking “rules of scientific inference, where before-and-after comparisons are stronger than simultaneous correlations—randomized, controlled tests stronger than longitudinal cohort analyses.” This anticipates the next criticism.

3). EBMgmt will likely be biased toward “statistically significant” findings

As Williams states, studies that take managerial practices to the test and do not disprove that they are more efficient than an alternative may end up “sitting in our filing cabinets because the null hypothesis was not rejected” (2007, p. 143). To illustrate, say that a researcher finds no difference in the motivation that two different incentive systems exert on a company’s sales force. Because the study found no support to state categorically that Incentive System A is more effective than B, most journals will not publish the report. Of course, this problem is prevalent in positivistic science in general, not just in the business disciplines. An EBMgmt movement should actually provide a strategy to ameliorate this problem. An ideal repository of EBMgmt products should include reports of rigorous studies in which the null hypotheses could not be rejected, with the twin objectives of advancing knowledge in a positive manner (i.e., a manager would feel confident in implementing such a practice) and preventing wasting resources that repeat research for which a causal relation does not receive support (i.e., management researchers will be enabled to ask questions that build upon such results instead of finding on their own what others already had tested but never reported due to the lack of outlets for such results). The responsibility for including this possibility in the design of the systematic reviews or other vehicles for dissemination of EBMgmt results rests upon the Collaborative or similar efforts. The next problem deals with how generalizable those findings might be.

4). EBMgmt will be valid mostly in “Western” contexts

A most important problem identified in the extant literature relates to the “Western bias” present in EBMgmt. As Miller found, “there is a single reference to this in *Hard Facts* when, on page 208,... authors note that there is a ‘Western cultural stereotype of leadership.’ Apart from this, there is no allusion to the debate about cultural differentiation...” (2007, p. 142). Indeed, most management research is done in the U.S. and some European countries, and even the work that takes place in non-Western contexts is frequently performed by or evaluated with Western standards. To the extent that managerial practices are socially constructed by their local societies (Hofstede, 2001), this may be a particularly perturbing problem, in light of the dearth of research production originating in non-Western countries.

Many changes in national priorities and ways to support management research need to take place—especially in emerging economies—to make realistic the possibility of having solid, robust evidence that would be applicable in non-Western contexts. Yet, to the extent that EBMgmt is able to accelerate scientific progress in the business disciplines, the possibility of “leapfrogging” or “catching up” by leveraging what has been learned by Western business science also becomes more likely!

Overarching Theme (b): It Is not Practical for Managers to Include Research Findings in their Daily Work

The second overarching theme deals with managers’ readiness to adopt EBMgmt by including the habitual search of research findings to inform their daily activities. I have identified two arguments in the extant literature.

5). EBMgmt may be misused by managers or external agencies as a way to impose their beliefs, preferences, or ideologies

This form of misapplication of EBMgmt is likely to occur only to the extent that the underlying philosophy is neglected or overlooked. Rousseau stresses that evidence-based practice is “the best current evidence coupled with informed expert judgment” (Rousseau 2006a, p. 267; emphasis added). It might be tempting for managers or even to external stakeholders like government agencies or activist groups to point to EBMgmt recommendations and attempt to impose them on particular organizations or groups, without regard to the judgment calls that the manager in charge is responsible for making.

On the positive side, the scope of “coercible decisions” is narrowed by the use of EBMgmt—if a manager’s preferred choice has no basis on EBMgmt, then coercing it is, by definition, not practicing EBMgmt! Said differently, if a manager or an external agency has an unsubstantiated belief or preference that has been disproved by business research, they cannot claim that they are using EBMgmt as their argument to force compliance.

6). In Evidence-Based Medicine, the patient’s values and preferences are to be taken into account; what about EBMgmt?

The extant EBMgmt literature has focused on the science, to the detriment of considering the practitioner’s judgment (the cites above being a welcome exception) and even more regarding

the entity that will be affected—the organization, firm, or group within it. Sackett and his colleagues in evidence-based medicine (EBM), in contrast, have been careful to include “patient values” in their definition and work. It follows that an implementation of EBMgmt that is respectful of the principles that inspire EBM should include the focal organization as its “patient” (i.e., the manager’s company is EBMgmt’s “patient”).

Still, while application of EBM (medicine) has direct impacts on individuals, the impact of EBMgmt is not physiological but psychological and social. Said differently, while a patient’s consent (or that of their guardians or closest relatives) may be indispensable for treatment in EBM, organizational consensus for EBMgmt might not. Consideration of organizational culture, professional norms, founder’s values, idiosyncratic preferences and the like is definitely a must for any practicing manager, yet some managerial decisions will not be easily accepted by a majority of members in an organization, or they might be the prerogative of its founders or owners. Clearly, more conceptual work is needed to explore and resolve the tensions and implications that stem from this problem.

Overarching Theme (c): There Are Business Situations for which Scientific Evidence Simply Cannot Offer Advice

The third and last overarching theme is about business situation for which science cannot (or in some cases *should not* attempt to) offer advice. I have identified three arguments in the extant literature.

7). EBMgmt excludes managerial idiosyncratic strengths

A manager’s idiosyncratic strengths such as intuition or experience are likely to be excluded by EBMgmt. Of course, a major advantage of EBMgmt is that it should help get rid of idiosyncratic weaknesses (e.g., wrong intuitions or incomplete or irrelevant experience) as well! Still, recent work that highlights the value of intuition has been growing in popularity—consider for example, Gladwell’s (2005) bestseller *Blink!* or Klein’s (2004) book highlighting the “power of intuition.” While Pfeffer and Sutton (2007b, p. 155) lament that “management, the business press, and consultants frequently have emphasized experience and practice at the expense of data and activities that have the potential for actually learning in ways that improve theory and practice over time,” they do not directly address the intuition argument. Still, work on managerial decision making and human cognitive biases such as Bazerman’s (1998)

or Kahneman, Slovic and Tversky's (1982) seems both more convincing—indeed, more evidence-based—and more supportive of the EBMgmt argument. Yes, using intuition in management decision making might sometimes be more practical, but the risk of neglecting available evidence will probably be more costly for all involved.

8). “Logic and careful analyses” are offered as substitutes when “Evidence” is insufficient

As illustrated above, at least for some questions, scientific evidence

“Many changes in national priorities and ways to support management research need to take place—especially in emerging economies—to make realistic the possibility of having solid, robust evidence that would be applicable in non-Western contexts.”

might offer equivocal answers. Even when it is not, there might be a need to differentiate between decisions made informed exclusively by tenuous evidence (like local facts) and decisions informed by robust, generalizable scientific evidence. Dierdorff (2007) finds that Pfeffer and Sutton (2006a: 24) suggest that using “logic and careful analyses” might be sufficient.

What would then be the difference between EBMgmt and “conventional” management? The need to differentiate between decisions based on robust evidence—stemming from controlled randomized trials, meta-analyses, and systematic reviews—and “temporary” or “ad hoc” evidence (local experiments, best-available information, decisions made under pressing or extenuating circumstances, etc.) becomes apparent. Rousseau (2006a) calls “Big E Evidence” that which stems from generalizable knowledge informed by the scientific method and “little e evidence” to the facts that are local or specific to a particular organization.

9). EBMgmt may be misused by researchers to favor certain epistemological approaches

Indeed, like any other tool, EBMgmt may be misused. Learmonth (2006) and Arndt and Bigelow (2007) have recently expressed their concern that EBMgmt may be a concealed way to strengthen the current bias that the business sciences have toward an even more positivistic, quantitative epistemological approach. The latter express their concern in particularly forceful terms: “Evidence-based management... is not a ‘new’ way of making decisions but the privileging of a particular form of evidence—

research, and specifically quantitative research” (Arndt & Bigelow, 2007, p. 5). This charge might be hard to avoid, since EBMgmt does seem to prefer empirical evidence or facts. It is firmly rooted upon a positivistic tradition of knowledge generation. For certain business disciplines like accounting, finance, operations management, etc. this might not be an important concern, but for other disciplines such as business ethics or strategy, this factor can be of great consequence.

In contrast, recent work by Rousseau et al. (2008) made an explicit effort to include non-quantitative research in systematic reviews, an emerging style of scientific report that has its origins in EBM. They have developed a typology of systematic reviews that does not privilege empirical work but includes qualitative research as acceptable evidence. Ultimately, the responsibility might have to be assigned to researchers, so that their work is not just rigorous but the nature of their findings is carefully qualified and calibrated to avoid misinterpretation, and to managers—so that their use of available evidence is as free of ideology and personal preferences as possible. To illustrate the first point, an online EBM service offered by the publisher of the Cochrane collaboration includes a ranking system to indicate the “strength of the evidence.” It is likely that a similar system could be profitably adopted by an equivalent EBMgmt service.

All in all, even though EBMgmt is still in an early stage and not without concerns, there seems to be cautious optimism regarding its potential (cf., Cascio, 2007; Cohen, 2007; Guest, 2007; Latham, 2007; Lawler, 2007; Roussau, 2007; Rynes, 2007; Saari, 2007). In fact, a recent issue of the *Academy of Management Journal*—arguably the most influential academic

publication in the field of management—focused specifically on how EBMgmt may be a most useful strategy to make research closer to practicing managers. Evidently, this will not happen without managers’ cooperation and active participation. In the following section, based on research on tokenism, I suggest that minority managers ought to be particularly concerned to make their practice evidence-based.

Evidence-Based Management as a Business Necessity for Hispanics and other Minorities

A central purpose of this paper is to propose the notion that EBMgmt is a business necessity for managers who are members of demographic minorities in their organizations. To support this concept, I now summarize Kanter’s (1977a, 1977b) work on “tokenism.” Recall that this theory suggests that, when an individual represents a demographic category found in about one of every six individuals (15% or less), they tend to experience increased visibility, heightened differentiation, and role encapsulation to fit stereotypes. It is interesting to notice that, nationwide, Hispanics compose approximately 15% of the existing workforce (Blancero et al., 2007); this does not mean that even a majority of Latinos will experience token status as this depends on the specific organization or work group composition. Indeed, there are geographic areas in the United States in which Hispanics have historically been a demographic majority (e.g., some regions in Texas, New Mexico, Arizona, etc.) and non-Hispanics may actually find themselves in the token position within a particular organization. However, research on gender ratios (Crocker & McGraw, 1984; Yoder, 1991) has found that it is not only the numerical proportion that counts, but societal expectations regarding the individuals’ roles in the majority or minority positions.

Early work on the effects of tokenism empirically focused on women but theoretically tried to apply the numeric proportions definition to any demographic minority (e.g., African Americans in mainstream organizations, males in female professions). As Williams (1992) contended, “token status itself does not

diminish men’s occupational success. Men take their gender privilege with them when they enter predominantly female occupations: this translates into an advantage in spite of their numerical rarity” (p. 265). Her qualitative research found that males in nursing, librarianship, elementary school teaching, and social work actually encountered preferential treatment, perhaps as a result of their membership in a socially enhanced group—males vis-à-vis females. As her work included mostly white males, she suggested further research be carried out on different races. The work of Zimmer (1988) also suggested that being female may present a stronger disadvantage than being a numeric minority, as did an experimental project by McDonald et al. (2004). On the other hand, Atwater and Van Fleet (1997) found substantiation of discrimination against males for a female managerial position in a laboratory experiment, a finding that may indicate that high-status group members

“To sum up, minority managers whose ethnic group has a lower status than the majority group are more likely to be highly noticeable in their firms; their performance is likely to be measured up to a higher standard, and even small failures in their work could mean stigmatizing categorization for the rest of their careers.”

might experience negative outcomes when societal expectations of gender appropriateness are challenged; this effect was also expected by Yoder (1991).

An implication is that female Hispanic managers might actually suffer from a double handicap (i.e., being token women and token Hispanic) when working in traditional corporations numerically—and hierarchically—dominated by White males. Grzywacz et al. (2007), based on the cultural gender division of labor among Latino immigrants, theorized and found support for the notion that Hispanic female workers would exhibit higher levels of work-family conflict. Even though their sample differs in many ways from Hispanic female managers, cultural ideals that place family responsibilities primordially on women, coupled with having to challenge double token status might put minority women (Hispanics, African Americans, even Asians)



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under amplified risks. Supporting this notion, experimental research carried out by Sekaquaptewa and Thompson (2002) found that African American women in solo positions performed worse than White women in similar contexts.

Unfortunately, I could not locate studies that examined tokenism in the context of Hispanic managerial minorities, and this is clearly a topic that is urgently requesting scholarly attention. In the only retrievable study focused on another highly educated Hispanic population, Foley, Kidder and Powell (2002) found that, among Hispanic law associates, the perception of a glass ceiling was negatively related to the proportion of Hispanic associates, to perceptions of promotion fairness and career prospects, and positively related to intentions to leave the firm.

To sum up, minority managers whose ethnic group has a lower status than the majority group are more likely to be highly noticeable in their firms; their performance is likely to be measured up to a higher standard, and even small failures in their work could mean stigmatizing categorization for the rest of their careers. Unfortunately, Hispanic managers in many work contexts in the United States do have a lower status than the majority group; they are often perceived as members of a group that, in the words of Gallegos and Ferdman (2007, p. 29), is “stealing valuable jobs from ‘Americans.’” This combination of being a minority that is perceived by many as a threat might be one of the mechanisms that contribute toward the concerns reported by Blancero et al. (2007) who, in a “sizable minority” of a sample of highly educated Hispanics, found experiences

that include isolation, discrimination, less-than-ideal mentoring encounters, and psychological contract breaches of fairness (cf. Rousseau, 1995).

I realize that unnecessarily “upping the ante” for minority managers also runs the risk of promoting unjustified paranoia or creating a “self-fulfilling prophecy” for members of such groups, and that is certainly not my intention in this article. By identifying documented consequences of tokenism or solo status, I attempt to reassure potential victims that uncomfortable situations they might be experiencing have less to do with their personal performance than with the structural demographic context in which they have found themselves. Well-grounded theories do suggest that the expectations of professionalism for Hispanics will be greater than for mainstream individuals or for members of other minorities whose societal status is not as threatening. In the following, last section of the article, I complement Pfeffer and Sutton’s (2006b, chapter 9) suggestions for practicing EBMgmt with the explicit intention of helping managers take advantage of the current developments. While

Table 3 shows my suggestions in a concise manner, further information may be found in the full book chapter, as well as in Rynes (2007).

Four Suggestions for Practicing EBMgmt

1). **Actively seek EBMgmt-themed or evidence-shaped literature.**

As described above, a developing initiative—the EBMC or EBMgmt Collaborative—by an elite group of academics is in the process of developing literature and services that have the explicit purpose of making EBMgmt a reality. In the coming months, systematic reviews of scientific evidence will start appearing in various business disciplines. Also, look for meta-analyses (studies that aggregate scientific evidence to estimate what is the strength of a certain business principle, while simultaneously squelching the error or “noise” that may come from individual studies) and reports of experiments that may generalize to your specific work domain.

TABLE 3.
Suggestions for Practicing EBMgmt

Suggestion	Illustration
Seek EBMgmt-themed or evidence-shaping literature	<ul style="list-style-type: none"> ▪ Read systematic reviews as they appear ▪ Look for meta-analyses (aggregate analyses of research studies) to find some of the most robust studies in the business disciplines ▪ Look for publications and services that can be traced to the EBMgmt Collaborative (2007)
To the extent possible, use the scientific method in your daily work	<ul style="list-style-type: none"> ▪ If your firm distributes computer-mediated services (or other instances that are amenable), run experiments or quasi-experiments to pilot innovations before “going live” ▪ Track, compile, analyze and (whenever possible) share or publish the results of your trials with the scientific and professional communities
Nurture your own curiosity and systematically question your own assumptions	<ul style="list-style-type: none"> ▪ Don’t be satisfied with trade books, consultants’ reports or even “expert opinions” ▪ Read the original studies (even if your years in graduate school are long gone) whenever the topic is strongly related to your work
Actively seek to read the “fine print,” contra-indications, and limitations	<ul style="list-style-type: none"> ▪ Especially when a vendor is your main source of information regarding a specific solution, don’t just seek to find the strengths! ▪ Keep a “devil’s advocate” near—a confidante, a mentor, a sounding board, a role model—who actively helps you see the issues from different perspectives.

2). To the extent possible, use the scientific method in your daily work.

For example, if your firm distributes computer-mediated services (or other instances that are amenable), run pilot experiments to test innovations before “going live.” Also, try to track, compile, analyze and—whenever possible—share or publish the results of your work with the scientific and professional communities. Professional associations (e.g., NSHMBA) often provide venues for sharing experiences in ways that advance their members and their employing organizations³. While a certain degree of confidentiality is required in many cases, a balance should be found so that we can collectively help advance our organizations as well as society at large.

3). Nurture your own curiosity and systematically question your own assumptions.

As it has been mentioned above, there is a high risk of making suboptimal decisions by being satisfied with trade books, consultants’ reports or even “expert’s opinions.” Practicing EBMgmt will often require reading the original studies, even if your years in graduate school are long gone, but especially when the topic is strongly related to your work. As Pfeffer and Sutton (2006b) phrase it, “being a ‘master of the obvious’ may not sound exciting and won’t get you labeled as genius, but it can make and save your company a lot of money” (p. 223).

4). Actively seek to read the “fine print,” contra-indications, and limitations, getting help whenever possible.

In particular, when a vendor is your main source of information regarding a specific solution, don’t just seek to find the strengths! Keep a “devil’s advocate” nearby—a mentor, a role model—who can help you see the same issues from different perspectives. Again, Pfeffer and Sutton’s (2006b) work reminds us that “having a blunt friend, mentor or counselor can help you see and act on better evidence” and that a “trusted counselor” in the team made a huge, favorable difference in a study of successful versus failed start-ups in Silicon Valley (p. 224). Hopefully, more and more academic researchers—especially those actively participating in the EBMgmt Collaborative or

similar endeavors—will be willing to help you, since you would be very likely to provide questions and situations that would better inform their research as well.

Concluding Thoughts

In this article, I have outlined the case for why it is of great importance for minority managers to base their decisions using the best-available scientific evidence, identifying several knowledge gaps in the process. Also, I have described the most salient problems so far identified in the EBMgmt literature given the early stage of development in which this movement currently is. Finally, I have included four suggestions that should be helpful to gradually make EBMgmt more useful for practicing managers, for researchers, and for society at large. Let’s work together to make EBMgmt a reality for Hispanic and non-Hispanic managers alike! ■

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³ NSHMBA’s Inaugural Research Forum is, at the time of this writing, scheduled for the 2008 Annual Conference and Career Expo, to be held in Atlanta in October. Such initiatives should be applauded and supported.

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