Why Evidence-Based Practice in I–O Psychology Is Not There Yet: Going Beyond Systematic Reviews

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In acknowledging at the outset the importance of the four major defining characteristics of evidence-based practice in equal measure, Briner and Rousseau (2011) offer a balanced portrayal of the requirements for its successful uptake in industrial–organizational (I–O) psychology. Unfortunately, however, the remainder of their article is devoted almost exclusively to an analysis of just one of these characteristic features, namely, how best to critically evaluate the best available research evidence.

The critical evaluation and synthesis of scientific developments as an input to organizational decision processes is undoubtedly a worthy cause. However, it is unlikely that the application of systematic reviews as advocated by Rousseau and Briner will generate the sorts of creative insights that the I–O psychology field needs so badly to continuously innovate high-quality evidence-based solutions to the problems besetting the modern enterprise. Although in evidence-based medicine, medical decision makers seeking to avoid error (allegedly) privilege evidence and standardization in their practices, decision makers in contemporary organizations more typically value innovation and differentiation. Accordingly, the push to evidence-based practice will only have the impact on the wider I–O psychology profession envisaged by its growing body of advocates—myself included—if we first engage in a more considered reflection on the fundamental nature of the complete package of information sources enumerated by Briner and Rousseau.

Unlike conceptual knowledge acquired through advanced academic study, the expertise underpinning the professional judgments of skilled practitioners takes many years to acquire through judicious supervision by suitably experienced mentors. How to accelerate the development of such expertise, much of which is tacit in nature, and incorporate it more explicitly into our education and continuing professional development programs is a far more urgent and pressing priority than the introduction of systematic review techniques.

Rejuvenating the Scientist–Practitioner Model

As Briner and Rousseau readily acknowledge, evidence-based practice is but one of a series of important developments over the past decade in I–O psychology (and its sister field management and organization science) that have sought to enhance the robustness of interventions through collaborative working among practitioners, policy makers, and professionally trained academic researchers. Although
these developments have generated a number of well-documented “success stories” (for recent overviews see Hodgkinson & Rousseau, 2009; Van de Ven, 2007), a number of strategic imperatives confronting the I–O psychology profession demand a significant step change in our attempts to rejuvenate the scientist–practitioner model that has been the bedrock of its distinctive identity from its inception (Hodgkinson & Herriot, 2002; Ryan & Ford, 2010).

The key to accelerating the required progress is not to be found in yet further technical refinements to the evaluation and synthesis of the extant scientific evidence base. Rather, the time has come for the profession to embark on a much deeper and more considered analysis of the actual processes underpinning the decisions of I–O psychology professionals and those affected by their interventions. In the absence of research evidence pertaining directly to the question of how I–O psychology professionals currently go about making their intervention decisions and the reasons why, it is instructive to consider developments in the psychology of strategic management (Hodgkinson & Healey, in press; Hodgkinson & Sparrow, 2002), which draw in turn on a wider body of work on cognition in organizations (Hodgkinson & Healey, 2008a). A number of pertinent insights emerge from these literatures:

1. Almost invariably organizational strategizing takes place in the context of a sociopolitical arena; virtually all significant organizational decisions are the product of a negotiated order; that is, the conflicting views of the various politically significant stakeholders must somehow be reconciled.

2. A host of cognitive, affective, and emotional factors intermingle in the shaping of actors’ mental representations of the organization’s external environment and its internal capabilities.

3. In cases where “cold” cognitive beliefs are in conflict with visceral and affective reactions (hot cognitions), typically the latter overpower the former in the shaping of choice preferences.

4. Hence, decision-aiding technologies predicated on the cold cognition logic of conventional information processing theories are unlikely to yield the expected benefits and, in some circumstances, may actually exacerbate extant biases or even generate new ones.

5. There is also evidence that hard-pressed decision makers, particularly senior executives and professionals, base important decisions on expertise manifest as intuitions and recent developments across a number of branches of psychology and the management and organization sciences (reviewed in Dane & Pratt, 2007, 2009; Hodgkinson & Healey, 2008a, in press; Hodgkinson, Langan-Fox, & Sadler-Smith, 2008; Hodgkinson, Sadler-Smith, Burke, Claxton, & Sparrow, 2009; Salas, Rosen, & Diaz-Granados, 2010) lend credence to the validity of intuition and several closely related, yet distinct, nonconscious cognitive-affective processes. It is important, however, to stress that intuition can only be of benefit in high validity environments, that is, where the cues are identifiable and reliable and there is an underlying body of expertise (Kahne-man & Klein, 2009, 2010). It is for precisely this reason that relying on intuitive judgments in personnel selection and assessment decisions often leads to poor outcomes (cf., Highhouse, 2008). Part of our duty as advocates of evidence-based practice, therefore, must be to assist clients in the identification of valid and reliable cues and in knowing when such cues and accompanying expertise are likely absent, a vital precursor to the
skillful blending of scientific evidence with expert judgment.\footnote{Elsewhere, citing Dane and Pratt (2007), Briner, Denyer, and Rousseau (2009) observe that}

6. In seeking to manage uncertainty, senior managers and other influential organizational stakeholders do not typically read scientific research; rather, they adopt industry recipes, shared mental models of ‘‘what works and what doesn’t,’’ acquired through participation in interorganizational social networks (Spender, 1989); this is probably also true of many practitioner I–O psychologists. Over time, the insights and practices acquired in this fashion, suitably adapted to meet the particular contingencies confronting the individual enterprise, much as a chef adapts a given recipe to the ingredients at hand, become institutionalized and legitimated through the cultural norms and formal requirements of professional bodies and regulatory agencies, in turn stifling further innovation (Abrahamson & Fombrun, 1994).

Each of the above lines of theory and research contribute to a multilevel, multicausal explanation as to why it is misguided to seek to advance the cause of evidence-based practice through a particular emphasis on the critical evaluation of the science base via systematic reviews. The truth of the matter is that the most successful I–O psychology practitioners, as in the case of medical practitioners and practitioners in any other profession, are those who have learned to blend the insights of the formal curriculum with years of accumulated wisdom gained in the field: art and science in harmony. Reflecting this more complex depiction of the scientist–practitioner model, as observed by Hodgkinson (2006), it is important to recognize that although there are occasions when the findings and recommendations of scientific journal articles in I–O psychology can be mapped readily on to the specific circumstances of practitioners’ assignments with a 1:1 correspondence, more typically the benefits for practicing I–O psychology professionals are less tangible, taking the form of critical reflections on,

how a range of analogous situations encountered in past work might be approached differently (and perhaps more effectively) in future, thus reinforcing their working knowledge of established theories, principles, and tools and techniques, while updating their practices from time to time, as and when appropriate (Hodgkinson, 2006, p. 177; cf., Locke, 2009).

There are many situations in which an absence of a well-defined body of evidence pertaining directly to the problem at hand precludes the direct application of systematic review techniques. Here, conventional reviews of the basic research literature pertaining to relevant aspects of the problem, with a view to creatively generating actionable design principles and propositions, are far more insightful, potentially circumventing the need to undertake years of primary research. Hodgkinson and Healey’s (2008b) development of design propositions for improving the practice of scenario planning demonstrates the power of conventional reviews used in this context (see also Romme & Endenburg, 2006).
Before concluding, it is also worth reflecting further on the extent to which systematic reviews can be useful for generating implementable robust solutions in situations where a sufficient body of evidence has accumulated that specifically addresses the problem at hand. I maintain that even in such circumscribed contexts of application, unless the review findings can be integrated meaningfully with the other three sources of information identified by Briner and Rousseau, it is highly unlikely that they will have much impact on the worlds of policy and practice, as aptly demonstrated in respect to the welter of evidence that has accumulated in connection with personnel selection practices. Survey after survey has demonstrated over many years that the frequency of usage of particular selection methods is inversely proportional to their reliability, validity, and utility, a finding that generalizes across different types of organizations, applicant groups, and countries (see, e.g., Hodgkinson & Payne, 1998; Robertson & Makin, 1986; Shackleton & Newell, 1994; Zibarras & Woods, 2010). This state of affairs persists despite a copious amount of high-quality primary studies that have been the subject of numerous meta-analyses, each demonstrating that structured interviews, assessment centers, and cognitive ability tests outperform other selection techniques by a considerable margin.

What the above case of personnel selection and assessment further highlights is that focusing on technical solutions to complex behavioral problems in the workplace, without first addressing more directly the inherently cognitive-affective, social, cultural, and political dimensions of those problems, is not going to achieve the step changes so urgently required at this critical stage in the evolution of our field as a science-based profession. In summary, the need to integrate more effectively the insights of the scientific literature with the complex realities of organizational decision processes and gain a more detailed and systematic understanding of why the demand for nonevidence-based practices and solutions so often outstrips the demand for evidence-based ones are problems that far outweigh the need to further refine techniques for research synthesis.

Concluding Thoughts

Like any radical innovation in its early stages of development, the notion of evidence-based practice constitutes a potentially major threat to the identities of practitioner I–O psychologists as skilled, autonomous professionals (Ryan & Ford, 2010). Extrapolating from Hodgkinson and Healey (in press), given that the mechanisms underpinning much of the bias against strategic change initiatives stem from automatic social categorization and stereotyping processes controlled by the reflexive system (Amodio, 2008; Dovidio, Pearson, & Orr, 2008), encouraging the conscious monitoring and adjustment of prejudices through reflective processes is an insufficient basis for overcoming them. Accordingly, the most pressing priority facing those of us seeking to promote evidence-based practice is not the training of researchers and practitioners in systematic review procedures but rather how to convert such “cold cognition” enhancing technologies (i.e., tools and processes aimed at mental model change in the absence of emotionally supportive mechanisms) into “hot cognition” enhancing technologies (i.e., tools and processes aimed at mental model change underpinned by emotionally supportive mechanisms). The failure to adapt our tools in this manner to the complex realities of the worlds of policy and practice can only serve to further divide the scientific and practitioner wings of the I–O psychology profession to the mutual detriment of both parties. In the final analysis, however, as noted at the outset, the ultimate remedy to the problems identified by Briner and Rousseau lies not in the refinement of tools and procedures for the critical evaluation and synthesis of research evidence but in the blending of such evidence with the requisite expertise (gained over many years in the field) to make appropriate
judgment calls, an exciting but challenging prospect that demands closer cooperation between university departments and skilled I–O psychology practitioners.

References


