
EDITORIAL

THE SCIENTIST-PRACTITIONER CONSULTING PSYCHOLOGIST

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This article identifies issues relevant to the scientist-practitioner model espoused by consulting psychology. It asks what it means to be a scientist-practitioner in more than aspirational or superficial terms and notes the frequent gap between science and practice and between practice and science. These gaps, it is argued, call for changed behavior on the part of both practitioners and of researchers. It is argued that the scientific-practitioner model can be differentiating in a highly competitive area of practice, that science can make its research more relevant to practice, and that practitioners have an important role to play in assuring the linkage of practice with research and theory. A recent publication (Nowack, K. M., & Mashihi, S., 2012) is used to illustrate a positive example of the scientist-practitioner model in which practice recommendations derive from scientific findings.

Keywords: scientist-practitioner model, consulting psychology, professional practice guidelines, ethics

The training guidelines for consulting psychology *Guidelines for Education and Training at the Doctoral and Postdoctoral Levels in Consulting Psychology/Organizational Consulting Psychology* (American Psychological Association [APA], 2007) lay claim to consulting psychology (CP) training embracing a scientist-practitioner model. Specifically, these guidelines state:

Consistent with the orientation of the SCP (Division 13 of APA), these guidelines assume that CP/OCP is guided by the *science* of psychology in evaluating and assessing the effectiveness of interventions and assessment methodologies used in the *practice* of OCP (p. 982, italics in original).

Concern with the scientific basis of our practice is more than something that is expected. It is also an ethical obligation. The code of ethics of the American Psychological Association (2002) states, in relevant part:

2.04. Bases for Scientific and Professional Judgments: Psychologists' work is based upon established scientific and professional knowledge of the discipline (p. 1064).

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Psychologists are also ethically obligated to minimize harm associated with their interventions:

3.04 Avoiding Harm. Psychologists take reasonable steps to avoid harming their clients/patients, students, supervisees, research participants, organizational clients, and others with whom they work and to minimize harm where it is foreseeable and unavoidable.

Yet, the field of CP has not fully articulated what that means and how CP practice should be consistent with this easily espoused (but not so easily implemented) values assertion.

Science in Practice

Now comes [Nowack and Mashihi's \(2012\)](#) "Evidence-Based Answers to 15 Questions about Leveraging 360-Degree Feedback" with a provocative example of the scientist-practitioner model illustrating, by implication, what being a scientist-practitioner means in the case of one widely used consultation technique, 360-degree feedback. These authors raise hard hitting questions such as: "Does 360-feedback do more harm than good?" (short answer: the process definitely can cause harm, especially when it ignores how people handle too much negative feedback, which may be worse than no feedback at all). Or again, "does 360-degree feedback work (for whom and under what conditions)?" (short answer: yes it can work, but mainly when best practices and research are followed and eight dimensions are taken into account).

[Nowak and Mashihi's \(2012\)](#) article also illustrates the complexity of translating the scientific literature into practice. Their complex review of an assortment of findings and meta-analyses demonstrates that the process of converting knowledge to practice is complicated. Nonetheless, they demonstrate that 360s can be made more effective, useful and valid when scientific evidence is followed and can be destructive and inappropriate when it is not. Psychologists thus have the opportunity to serve their clients and others affected by their work well by knowing the literature and properly translating it into practice.

Yet 360-degree feedback, like coaching, is used by a wide number of practitioners, many if not most of whom are not psychologists, and in a wide array of applications (see, e.g., [Richardson, 2010](#); [Robertson, 2008](#)). Indeed the provision of 360 products and services has become a big business and is not infrequently misused. [Toegel and Conger \(2003\)](#) reported, for example, that 360-degree feedback was not infrequently being used instead of performance appraisals. Others (e.g., [Eckert, Ekelund, Gentry, & Dawson, 2010](#)) have provided evidence that ratings discrepancies between various rating groups may be associated with cultural differences. [Tosti and Addison \(2009\)](#) noted that the measures provided by some vendors may do more harm than good.

The Road to Science-Based Practice

Tensions have been present in the implementation of the science-practitioner model almost since its inception, in clinical psychology, in 1949. [Rupp and Beal \(2007\)](#) provided a useful discussion of some of these tensions in a series of articles published in *The Industrial-Organizational Psychologist*. They cited the Society for Industrial & Organizational Psychology past president Jeff McHenry's three-prong approach to the industrial-organizational (I-O) scientist-practitioner version of this model in identifying ([Rupp & Beal, 2007, p. 38](#)) the need to:

- Work with issues that are important,
- Measure outcomes that are important (at multiple levels of analysis), and
- Share knowledge effectively.

The creation of research that can be translated into practice is not a simple matter. What goes into creating integrative, practice-focused articles such as [Nowack and Shahihi's \(2012\)](#) is a large number of individual studies that were aggregated both by these authors and by prior reviewers of this literature (e.g., [Morgeson, Mumford, & Campion, 2005](#)). The metaphor of a funnel connotes the

idea that many studies need to be conducted before distillable practice-related knowledge can be generated. Practitioners, in turn, need to (a) be aware of, (b) read the literature as it is generated, (c) change practices based on consistent and reliable findings, (d) help contribute to practice-relevant literature, and (e) proceed with caution when knowledge from practice exceeds that from research.

Concerning the last point, the APA Ethics Code (APA, 2002) notes:

2(e) In those emerging areas in which generally recognized standards for preparatory training do not yet exist, psychologists nevertheless take reasonable steps to ensure the competence of their work and to protect clients/patients, students, supervisees, research participants, organizational clients, and others from harm (p. 1064).

In professional practice, applications do not always fit readily into the extant literature. Yet, to some degree practice will always be ahead of, or at least somewhat divergent from, science. The needs of clients do not necessarily derive from what research has chosen to study nor does the path of science always focus on practical applications. Additionally, applications do not always neatly fit into the categories that can readily or practically be researched. The issues relevant to a particular application may be complex combinations of issues for which guidelines do not exist or they may require the combining of multiple assessment tools and interventions, or profiles of scores, for which little scientific evidence yet exists (see, e.g., Latham, 2001; Schmitt, Arnold, & Nieminen, 2010, p. 63).

All that said, this does not mean that consulting psychologists can simply do what is popular or what makes sense to them, picking and choosing eclectically from the literature or ignoring relevant studies or findings or their responsibility to derive practice from science. When science reliably shows a specific basis for practice, that must generally be followed. When the knowledge base is lacking or insufficient, the need is to proceed in a disciplined, theory- or conceptual-model-based, thoughtful way, integrating what is known and relevant theory and making appropriate use of knowledge deriving from practice—one's own and that of others—particularly that deriving from the literature. The need is to develop conceptual plans that draw on the best research, that build on collective experience, and that evaluate assessment and intervention outcomes.

The science of psychology, in turn, if it wants to make its research relevant for practice, must be engaged with practice and with practitioners. Simply because research is "science" does not mean that it is without flaw or is practice-relevant. Research designs in our field are too often nonexperimental and atheoretical, providing more circumstantial than definitive evidence. The questions science can most easily address are not necessarily highly related to practice, which must consider multiple variables and contexts at the same time. There can also be method bias in CP-relevant research in that dependent variables too often are included that are the easiest to measure rather than variables that may be multimodal, more abstract, and measured over time. For research to influence practice more readily so that it can result in validity for practice, it needs to assess variables that are of central importance in organizational life, even when they are difficult to assess. Good science requires both inductive *and* deductive reasoning.

Commoditization Versus Rarer Skills

The practice of consulting psychology, like that of I-O psychology, exists in a highly competitive environment. Few of the tools and techniques, even the ones the fields invented, are uniquely owned by psychology. Corporate and organizational consumers of our products and services do not necessarily conclude that psychologists have unique value in implementing techniques and products that are widely available. Indeed, products such as 360-degree tools are widely offered by vendors who assert that they can provide them more cheaply and efficiently, and psychologists may be unlikely to compete effectively when the competition is based solely on faster and cheaper. Consulting psychologists may therefore feel pressure to adapt measures or methods that are in common use rather than those validated based on a body of accumulated evidence. They may forget that the responsibility of psychologists is to assure the validity of the inferences made, for example, by particular assessment tools (Putka & Sackett, 2002). Their responsibility as scientist-based

practitioners is also to resist pressure that may result in the use of problematic measures or methods, to assure that they have read the relevant (and current) literature in their respective areas of practice, and to be able to articulate to clients why their approach is more likely to result in desired outcomes than those that may be popular but unvalidated or poorly validated.

Indeed, insistence on an evidence-based approach to professional practice can differentiate consulting psychologists by assuring that their work is based on what is reliably known, even (or perhaps especially) when that knowledge is not widely diffused. In the case of the 360-degree feedback, for example, there are at least 15 ways in which such processes can be delivered in a scientifically supported manner (which, in some cases, may mean not at all). Even with such evidence, however, practitioners must consider, in reviewing the scientific literature, such issues as effect sizes because “statistically significant” findings accounting for little variance may not be robust enough to directly apply in practice.

The Other Side of the Hyphen: Practice

The scientist-practitioner model contains two words and the practice side of the hyphen should not be neglected or underestimated as to its complexity or its usefulness in learning/understanding, nor should the limits of science be ignored. In the case of CP, practice is the art of both (a) translating from the knowledge base—the science and research—of the discipline into the specific problems and issues that are before the psychologist and (b) applying judgment derived from both science and knowledge gained from experience (especially when science is lacking or minimal), to be helpful to clients in solving or preventing/mitigating problems and addressing challenges and/or opportunities. How to do so validly is neither obvious or simple.

To continue with the 360-feedback example, the scientist-practitioner consulting psychologist does not begin by asking: “Is Measure A better than Measure B for conducting 360s?” Nor does it rely on anecdotal data of which practitioner prefers which technique as the primary or sole basis for making decisions. Rather, the initial questions to be asked concern the client’s goals and what the most effective strategy(-ies) and methodology(-ies) are for achieving the best outcomes with minimal intrusiveness and maximal cost–benefit ratios. Scientist-practitioners read and follow the literature and are able to advise their clients on the basis of what is known to work and what is not, not on the basis of opinions shared on in response to a quick post on a listserve. They educate their clients about these issues, and they do not allow themselves to be seduced into a competition with providers who may offer to provide services more cheaply and more efficiently but who know little—and are concerned less—about the efficacies, limitations, and liabilities of their methods. Science-based practitioners also do not rotely follow their competitors’ practice of trying to sell a product or canned intervention rather than a more complex process-based approach tailored to a particular context that may be more likely to generate change that can be sustained over time.

However, there are also aspects of the science-practitioner linkage that practitioners, rather than scientists, are uniquely qualified to do. Unlike the scientist who creates or synthesizes new knowledge but does not have to translate the findings into day-to-day practice, the science-informed practitioner can be an expert, to continue with the 360-degree feedback example, in knowing how to provide feedback in a way that is sensitive to the cognitive, emotional, and motivational states of individuals that affect their understanding and processing of feedback—particularly when there are negative perceptions to relay. Effective practitioners are aware of their own impact on the process and with the particular client, and they use that information to adjust their approach to manage their impact effectively for the best outcomes. They use their scientifically grounded and experience-honed knowledge to differentiate those who are likely to change and to maintain change from those who are not. They can help both those being assessed and their coworkers and supervisors to help support change, and they can know how the particular constellation of abilities and personality characteristics found in the assessment can be used to leverage change.

Practice also is the context in which some of the limitations on the use of particular techniques or methods can be learned. For example, in the case of 360-feedback processes, practitioners, not researchers, are likely to be the first to learn that the practices in this area can become litigious,

including, e.g., demands by unhappy assesseees who file suit to discover the specific source of data collected under promised terms of anonymity. Practitioners also learn the idiosyncrasies and practical limitations of particular methodologies and processes that, when aggregated, supplement the scientific literature establishing what works and what does not. They are also more likely than the scientists to have real-world data on the cost–benefit ratios of using one applied approach versus another within a well-validated arena of practice. (Of course, practitioners may also overly rely on such experiential information and data, which are not substitutes for science and research but rather additions to such evidence.)

Practitioners are also uniquely positioned to create experientially based knowledge. Research that is anchored in, and responsive to, the phenomenon it is trying to address is more likely to be knowledge that is used in practice. CP's recently lost hero, Harry Levinson (see [Lowman, Diamond, & Kilburg, in press](#)), wrote in a way that anchored his theories and views about consultation in the rich reality of actual experience doing consultation with a wide range of practice situations. His work was consistent with theory, but it was largely practice driven. Levinson's work helped elevate the value and relevance of practice-derived knowledge not as an evidence source inferior to knowledge derived from science but one to be considered in parallel, and to be integrated, with it.

Although practitioners may experience frustration with articles that appear to be peripheral to practice and that lack distillable practice utility, they do not typically contribute to the published literature. This makes it more difficult to create practice-based knowledge or to integrate research with practice. Those practitioners who do take the time to write up their practice-based findings as case studies or as testable hypotheses contribute to the integration of science and practice.

Conclusion

In CP, we are far from the day, as now is the case with medicine, in which choices made that are not aligned with evidence-based science can be grounds for law suits or malpractice charges. Perhaps that is not a bad thing, but as [Nowack and Mashihi \(2012\)](#) demonstrated in the case of 360-degree feedback, we have ample evidence of many aspects of scientifically defensible practice (and that which is not).

We will not, I argue, be taken seriously as a profession until we accelerate our attention to practicing explicitly on the basis of science and research and to creating science and research that are practice relevant. Not only is this the ethical thing to do, it is also what is most likely to be effective in differentiating our practice from the many competitors using our techniques and methods but without making the link between practice and science.

In short, we need both good practice *and* good science to create a science-practitioner-driven discipline. We need both evidence-based practice *and* practice-based evidence to create and sustain that discipline.

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