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Scientist-practitioner?

Bob Dick (1996) Is it time to revise the scientist-practitioner model?. An unpublished discussion paper.

Revised in 1996 from an earlier draft.

For some years now it has been accepted as an article of faith that the appropriate model for learning psychological practice is that of the *scientist-practitioner*. The assumption is that good psychological training includes extensive and rigorous training in empirical research.

It is interesting to examine the research evidence. That evidence suggests that the model has done little to enrich teaching. Barlow, Hayes and Nelson (1984) reviewed the available evidence in North America. They listed the following observations ...

- Research paradigms are inadequate for researching psychological issues.
- The training does not result in practitioners doing research.
- Practitioners do not even make much use of research findings.

- Research has little influence on practice.

And Barlow et. al. are supporters of the scientist-practitioner model.

Their comments addressed clinical psychological practice, and in the United States. A somewhat more recent study showed similar results for clinical psychology in Australia. Martin (1989) questioned Australian and UK clinical psychology programs. All who responded reported that their program was based on the scientist practitioner model. Yet the majority of clinical psychologists didn't publish articles. For that matter, they didn't present conference papers, prepare manuscripts, write research papers for internal circulation, or write reviews. I suspect this is still true.

There is other local evidence from a study done at about the same time as that by Barlow et.al. Johnston (1984) evaluated the four year psychology program at the University of Queensland. The most common complaint at that time, from graduates of one, three and five years standing, was of an overemphasis on research and statistics and an underemphasis on practitioner skills.

Regular evaluations were carried out of the University of Queensland coursework masters program in organisational psychology (for example Dick, 1992). Regularly, graduates, students and employers commented favourably on the emphasis on skills over conventional research methods, and the inclusion of qualitative research methods.

To return to the Barlow et. al. study... Barlow and his colleagues recognised the need for methods more suited to practice. It was on this basis that they were able to argue that the scientist-practitioner model still deserved our allegiance. They seem to assume that the scientist-practitioner model integrates theory and practice.

I want to suggest, however, that there is a profound difficulty with this view.

The difficulty, I suspect, is that there are two scientist-practitioner models — the one we use to justify the way psychologists are trained, and the one we act out in our academic institutions. Argyris and Schön (1974, 1996; Argyris, 1993) would call these our espoused theory and theory in use respectively. And as Argyris and Schön reiterate often, people have trouble recognising the gap between what is preached and what is practised.

The espoused version of the model supports what one might call *sceptical empiricism*. It values evidence which is used for a sceptical evaluation of methods of practice. The in-use version teaches primarily those approaches to research which are appropriate to laboratory-experimental studies when all variables can be controlled and the experimenter can be a dispassionate observer.

The results are what one would expect. As Barlow and his colleagues have already noted, there is a gap between research and practice. The gap has closed little since the scientist-practitioner model was first adopted in North America.

Closer to home, the 1986 Annual Conference of the Australian Psychological Society adopted as its theme "Bridging the gap between theory, research and practice". In the light of the preceding discussion, this is a laudable aim.

It just so happens that there is a research paradigm in which there is little gap to bridge. It is action research, where theory, research and practice happen at the same time. Curiously, as far as I know, no paper given at the conference acknowledged action research. Certainly, only a few of the studies reported there were done within a framework resembling action research.

Action research is a practitioner-developed methodology. It was apparently due in the first instance to Lewin (e.g. 1946, though some attribute it to Collier, 1945, who published before Lewin). It is also the theoretical base chosen by French and Bell (1985) for the standard text (and handbook) in the field of organisation development.

(Unlike positivist research, action research does not depend upon the choice of a precise research question and method before a study begins. Question, method and answer are refined progressively as the research proceeds. It is therefore admirably suited to use by practitioners, who most often do case study research—that is, when they do any at all.)

Action research is entirely consistent with the *sceptical empiricist* version of the scientist-practitioner model. It is an approach which pursues the dual goals of action and research. As the practitioner carries out her interventions, she simultaneously refines her understanding of the situation and the theories and methods she is using. Theory and practice develop simultaneously and within the same procedure.

This makes for good learning, good practice, and useful theory. And I think that it is the way many effective practitioners already operate. At least informally, it characterises the work of many of the more effective practitioners I have worked with.

I hasten to add two caveats. Firstly, I have nothing against other research methods. Secondly, I have no wish to hold up action research as an ideal.

For the first of these, action research is very poor at researching causal models. It yields results which accumulate slowly. While it suits practitioner research, it can be complemented by the more focussed but less "ecologically valid" approaches in the laboratory. Its approach, usually qualitative, does not make for easy replication.

As for action research being any kind of ideal, that is clearly nonsense. The field of organisation development, for example, is as much characterised by ideology and contradiction as any other human endeavour.

The point I *do* wish to make is this... there is available a methodology which is designed to address the very issues which the scientist-practitioner model has

dealt with unsuccessfully. It is consistent with the espoused scientist-practitioner ideology. It just happens to be rather different from what actually happens in much of psychological training.

It also assumes that practice leads theory rather more often than theory leads practice. This may go against the current ideology in psychology. But as Barlow et. al. acknowledge of clinical practice, that is the reality.

The time has come, perhaps, for a renaming of the dominant paradigm. Action research works within what might be called a problem-solving approach. The sceptical empiricism which scientists value is part of it. Practical outcomes, however, are also valued. It may be that through the adoption of such a model in psychology, theory, research and practice might become closer than they presently are. We might actually turn out graduates who use their practice to inform theory, and theory to inform their practice.

It may be that here is a way for psychology to capture the spirit of the scientist-practitioner model—by abandoning its terminology and adopting instead that of the practitioner as sceptical problem solver and action-researcher.

There are changes occurring in the scientific and psychological community. The evaluation literature (including Lee Cronbach and his colleagues, 1980) increasingly argues that qualitative data have an important place. There are exciting new qualitative methodologies which promise to have immediate and fruitful application within psychological practice, especially outside clinical psychology. I would include here the "action science" of Argyris, Putnam and Smith (1985) and the soft systems methodology of Checkland (1981, 1992). It is of interest that Checkland began in operations research, but found that to apply systems methods in organisational settings required that he move to the use of qualitative data. Cook and Shadish (1986), in a major review of evaluation, decided that reality had pushed evaluation methodologies in the same direction. There are

the more rigorous versions of action research pioneered by Kemmis and his colleagues (for example Carr and Kemmis, 1986) at Deakin University.

— Bob Dick
(Revised March 1996)

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