The scientist–practitioner model as a framework for coaching psychology

Sarah Corrie & David A. Lane

The scientist–practitioner model has been proposed as a viable basis for the development of coaching psychology, despite proving to be a controversial ideal in other forms of applied psychology. This article examines what is meant by this term and how it can contribute to the development of coaching psychology and proposes a redefinition of the model that is fit for the purposes of contemporary coaching practice.

Keywords: scientist–practitioner model, coaching psychology, science, identity, applied psychology.

The scientist–practitioner model and psychology: A brief history

The scientist–practitioner model was originally conceived in 1949, for the then emerging profession of clinical psychology. Since that time, it has received wide official endorsement as the basis for a distinctive professional ‘brand’ (British Psychological Society, 2005; Kennedy & Llewellyn, 2001; Woolfe & Dryden, 1996).

In simple terms, the scientist–practitioner model proposed that psychologists should be trained as both scientists and practitioners. In their historical review, Lane and Corrie (2006) highlight that there were compelling political reasons for endorsing this emerging profession with the hallmark of scientific respectability. However, implementation of the ideal has proved problematic and the scientist–practitioner model has been hotly debated and subject to severe criticism. The debates have spanned whether it is feasible – and indeed possible – to train psychologists to operate as both scientists and practitioners, whether the model equips practitioners with the prerequisite skills for responding effectively to social need and whether the scientist–practitioner model can truly promote the systematic development of psychological knowledge more broadly.

Some have argued that the scientific identity of the practitioner is ‘fraudulent’ (Jones, 1998) and that the divergent priorities of scientist and practitioner lead to an
inevitable and irreconcilable rift in purpose and activity (Rennie, 1994; Williams & Irving, 1996). Others have claimed that a significant proportion of research conducted in academic settings lacks relevance to the needs of practitioners (see Bergin & Strupp, 1972), with doubts about the extent to which the model equips trainees with the necessary competences for effective clinical practice (Sheehan, 1994). Evidence in support of these claims has come from a number of sources. Nathan (2000) and Head and Harmon (1990), for example, have observed that at post-qualification, relatively few psychologists conduct research whilst Allen (1985) found that professional psychologists rank research as a lower priority than service-related commitments.

As Shapiro (2002) observes, the original definition gave relatively little consideration to how science and practice would be integrated in routine clinical practice, thus fuelling an underlying tension between science and practice that persists today. However, despite the difficulties associated with its implementation, support for the scientist-practitioner model has remained. Stoltenberg et al. (2000), for example, argue that psychologists cannot be competent in the delivery of their practice unless they possess the skills to evaluate it. The ability to conduct research is an essential starting point for understanding and making use of the published research literature in an informed way.

Belar and Perry (1992) have also proposed that the scientist-practitioner model provides an important framework for theory-building whereby, through a systematic approach to enquiry, random observations can be shaped into hypotheses that presage the development of new theories and interventions. A similar argument was made by Stricker (1992) who advocates that the impact of research on practice often occurs through an indirect ‘meta effect’ whereby the research questions of one generation tend to presage the professional developments of the next.

The issue of definition would also appear to be critical to the debate. Milne et al. (1990), for example, found that when a wider definition of scientific activity is adopted – one that encompasses publishing in non-refereed journals, compiling service evaluation reports and undertaking small-scale research projects – a closer approximation to the ideal begins to emerge.

Corrie and Callanan (2001) found marked variations amongst practitioners in terms of how the scientist-practitioner model is defined and also observed that idiosyncratic definitions were related to perceptions of its value. Different interpretations could be placed on a continuum of closed to open definitions, where: (1) the most ‘closed’ related to a model of science that was essentially concerned with traditional experimental testing; and (2) the most ‘open’ definition conceptualised the scientist-practitioner model as a spirit of enquiry whereby psychological evidence could be used in a more holistic way according to the needs of a particular practice-based enquiry. These findings led Corrie and Callanan (2001) to conclude that it is no longer justifiable to define the scientist-practitioner model as a single way of working, but rather to interpret it as a framework that encompasses a broad range of more idiosyncratic models of practice and systems of values which should become a focus of enquiry in their own right.

These debates have important implications for coaching psychology which are considered next.

**The coaching psychologist as scientist-practitioner**

Short and Blumberg (2009) highlight that one of the central aims of the SGCP is to encourage research that can inform the development of coaching psychology in the variety of contexts in which it occurs. The fact that a section of *The Coaching Psychologist* is now devoted to sharing ideas about, and facilitating the undertaking of, research attests to the central importance of underpinning coaching psychology with a strong
evidence-base and developing its knowledge through recourse to science. The scientist-practitioner model is promoted as a viable and valuable framework in this context. However, if the discipline is to avoid the pitfalls faced by other forms of applied psychology, then it will be necessary to consider what this terms means and how we conceptualise its aims and function, as well as the definition of science contained within it.

In their examination of how the scientist-practitioner model can add value to coaching psychology, Cavanagh and Grant (2006) point out that there is not, as yet, a robust coaching-specific scientific literature that can systematically guide the development of its knowledge base. This is a particular challenge given both the rapid growth of interest in coaching and its applications within a highly diverse range of settings. As coaching psychology is distinguished from other forms of applied psychology by the breadth of its knowledge base rather than by its uniqueness (Cavanagh & Grant, 2006), it has inevitably drawn upon theories and techniques from across the spectrum of psychological sciences. But which model of science and which forms of scientific activity best fit the range of investigative questions with which coaching psychologists are most concerned?

Kwiatkowski and Winter (2006) argue that to intervene effectively, scientist-practitioners must be able to navigate the worlds of industry and commerce, in addition to the world of science. They make the important distinction between sophistication and impact and how, when it comes to producing impactful research, the small scale project may be preferable to an elegantly designed and rigorously controlled study. Indeed, Kwiatkowski and Winter (2006) suggest that an over-attachment to sophistication and rigour may actually hinder the ‘take up’ of psychological science.

Any redefinition of the scientist-practitioner model must, then, be considered in relation to what we hope that our science will achieve for us. Science is a marketable product (Corrie, 2010). We must consider carefully who gets to define what counts as ‘evidence’, the most appropriate way to use the results obtained and their potential impact – for good and ill (Sturdee, 2001). Appreciating the more contextual positioning of our science is what we believe lies at the heart of a more sophisticated interpretation of the scientist-practitioner model. As Miller and Frederickson (2006) comment, we do not become scientist-practitioners solely by conducting large numbers of measurements, but through being able to examine our epistemologies, science and practice in the context of the multiple social systems in which we operate. Coaching interventions are embedded within domains that require non-linear thinking and creative solutions.

Psychology’s traditional allegiance to the empiricist model as the epitome of scientific credibility, and the hypothetico-deductive method that has dominated much of its research, may not prove adequate to address the majority of questions with which coaching psychologists are faced. Cavanagh and Grant (2006) propose that in order to achieve a robust scientific basis for the development of coaching psychology, a preferable model is one that draws on complexity theory in which human systems are seen as open systems that interact in non-linear and adaptive ways. The coaching relationship is part of a complex system that exists within, and forms part of, a network of other complex systems. As the interactions and responses governing a coaching session are determined by an almost infinite and unpredictable causal field, they cannot be predicted or controlled in the way that the experimental method favours.

However, this is not seen as a reason to abandon the quest for a scientific foundation. Indeed, Cavanagh and Grant (2006) propose that it is precisely in such contexts that the scientist-practitioner model makes its most significant contribution. Specifically, they propose that the nature of the coaching intervention needs to be continually renego-
tiated as each party comes to better understand the critical issues involved. This ability to work towards a shared case conceptualisation depends upon the coach’s knowledge of, and ability to use, a wide range of evidence to meet the needs of the enquiry at hand. It is precisely the training in the production and interpretation of research that they argue enables the coach to operate effectively within the wide spectrum of psychological knowledge and which enables them to develop the skills to collect data, form and test hypotheses, evaluate the findings and infer conclusions that are relevant to the individual client. As they suggest:

“The strength of the scientist-practitioner model is not in developing prescriptive models of psychological intervention which can be applied with unquestioning confidence in their scientific veracity. Rather, its strength is that it provides both information and methodological rigour that the practitioner can use to negotiate the ever-changing waters of psychological intervention” (p.157).

‘Revising’ the scientist-practitioner model for the future
The skills required of the psychologist operating in today’s complex world are sophisticated and diverse and the contexts in which coaching psychologists operate will entail a wide range of approaches to research and enquiry. In a previous volume (Lane & Corrie, 2006), we proposed that the prerequisite skills for effective practice fall within four main domains which can provide an overarching framework for exploring what it means to be a modern scientist-practitioner. These are: (1) the ability to think (judge, reason, make decisions and problem-solve); (2) the ability to weave data from different sources into a coherent formulation or case conceptualisation; (3) the ability to act effectively (that is, to devise and implement specific interventions strategies, design solutions and innovate creatively on a case-by-case basis); and (4) the skills to evaluate and critique our work (including the use of psychological science and evidence in addition to relevant reading, personal audits and use of supervision and training).

However, the scientist-practitioner model may also represent a distinct type of professional identity. Abrahamson and Pearlman (1993) have observed an emerging consensus that the scientist-practitioner model is a distinctive inner professional ‘compass’ which carries with it a moral injunction to distinguish between sources of knowledge on the basis of their origins. This echoes Singer’s (1980) earlier argument that the relationship between research and practice should be elevated to the realms of ethical responsibility.

Aspenson et al. (1993) also found this to be an important feature of psychology trainees’ attitudes towards the scientist-practitioner model. In particular, those with positive attitudes towards the model also held a belief that ethical and effective practice was dependent upon practitioners keeping themselves informed about theoretical and empirical advancements within the field. Over time, these attitudes appeared to become internalised suggesting that for some, commitment to the scientist-practitioner identity is consistent with the commitment to a particular set of values.

Of further relevance here, is Crane and Hafen’s (2002) developmental perspective. They propose that practitioners travel through a series of scientist-practitioner stages. In the earliest stages, as fundamental competencies are acquired, the focus is on becoming an evidence-based practitioner (that is, implementing the knowledge and methods established by others). In the next stage, practitioners can be taught how to use research through evaluating the contribution of different studies, which enables them to determine what has meaning in an applied domain. Practitioners then learn to collect data from clients which introduces them to specific scientific methods they need to conduct their own research. Finally, they become ‘translators’ of research for other practitioners in the field.
Thus, novice practitioners may prefer a more concrete definition of what it means to be a scientist-practitioner as this offers a clear framework in which specific skills can be systematically developed. In contrast, highly experienced practitioners may favour the flexibility to determine how they define and implement the model. This would appear to be consistent with the literature on professional development more broadly, whereby it is recognised that practitioners’ relationship with diverse sources of knowledge, both formal and informal, acquires different meanings at different stages in their careers (Skovholt & Rønnestad, 1995).

Elsewhere (Lane & Corrie, 2006) we summarised a vision of the scientist-practitioner model as a distinct approach to enquiry rather than the undertaking of any specific activity. We proposed that the scientist-practitioner model can no longer be defined as the application of psychological science to practice in any simplistic fashion, but is rather a framework in which the discipline of psychology becomes personalised so that we can: (1) respond optimally to the dilemmas experienced by the clients who seek out our services; and (2) reflect upon and enhance our practice in systematic ways. As we view it, the coaching psychologist as scientist-practitioner is someone who has embarked upon a never-ending search for new approaches that facilitate increasingly helpful ways of working with clients to make sense of the puzzles that we, and they, are attempting to solve. In addition to identifying these approaches we search for ways through which they might be validated and refined.

In choosing the identity of the scientist-practitioner, coaching psychologists will be committed to holding in mind a framework for distinguishing between different forms of knowledge and a general set of psychological principles for informing the creation of a systematic approach to professional decision-making. Likewise, when investigating their own practice or when examining or conducting research, we would expect the scientist-practitioner to be able to justify their decision to rely on one model of science rather than another. In this way, the scientist-practitioner model becomes a system through which coaching psychologists can both evaluate the limitations of their chosen model and be clear about the functions it can fulfil (Lane & Corrie, 2006).

Ultimately, there are many ways of being a scientist and multiple ways in which being a scientist-practitioner might manifest itself. As coaching psychologists and scientist-practitioners, we are not solely interested in how effective our interventions are, but also concerned with the process of enquiry itself. In this sense, we concur with Stoltenberg et al.’s (2000) view that the scientist-practitioner model is essentially an integrated approach to knowledge. A new vision is viable but will necessitate the promotion of multiple narratives, representing a broad approach to enquiry that embraces a multitude of purposes, myriad perspectives and a wide variety of processes.

**Conclusion**

Coaching takes place alongside other offers in the market place and so we need to consider what we offer that adds value and how our position as scientist-practitioners contributes to that value. In this paper we have argued that the scientist-practitioner model does indeed add value, but only if we look beyond a 60-year-old definition of what it means to be a professional psychologist. The scientist-practitioner model conceived of in 1949 had key advantages for the embryonic profession of clinical psychology but does not meet the needs of the emerging discipline of coaching psychology.

We concur with Short and Blumberg’s (2009) view that we need to ‘...increase the credibility of our profession through the sharing of scientific- and enquiry-based practice’ (p.44) and strongly endorse the view that our practice must indeed have a scientific foundation. However, the wide range of activities, professional contexts and interest in positive and constructivist approaches that coaching psychology embodies has major
implications for our understanding of ourselves as scientists. We must remain open to exploring, questioning and critiquing the versions of science to which we subscribe if we are to avoid what Salkovskis (2002) has termed the ‘…unthinking application of scientism’ (p.4).

The challenge facing coaching psychology is how to look beyond the authorised version of the scientist-practitioner model in order to engage with a sophisticated consideration of the range of models of science and practice encompassed within it. This article is one response to what we would see as a pressing need and an area in which we would welcome further discussion and debate.

References

Correspondence
Sarah Corrie
Postgraduate Training Programmes in CBT, CNWL Foundation Trust, Royal Holloway University of London.
E-mail: sarah.corrie@nhs.net

David Lane
Professional Development Foundation, 21 Limehouse Cut, 46 Morris Road, London E14 6NQ.
E-mail: david.lane@pdf.net
The scientist-practitioner model as a framework for coaching psychology


