Theory and practice I: beyond theory  A widely held view of science assumes that theory is fundamental not only to basic or "pure" research, in which the aim is theory, but also to applied science and expertise, in which the aim is practice. In this second part of my reflections on critical pragmatism, I would like to question this prevalent view of science from the perspective of critical pragmatism and its concern for reflective practice. As the topic is rather complex, I will limit this edition of the Bimonthly to some preliminary considerations. In the next Bimonthly, I will then examine the way in which mainstream contemporary science theory tends to ignore these considerations, in a way that works against reflective practice. These considerations should in the end help us to appreciate what difference a view of applied science and expertise grounded in critical pragmatism might make for our notion of research competence.

The pragmatic test of clear thinking  One of the basic tenets of all pragmatist thinking is that we cannot really appreciate the meaning and validity of ideas, opinions, beliefs, and evaluations without trying to gain clarity about the difference they make in practice. There is no such thing as an abstract meaning removed from any context of practical action; hence, clear thinking requires that we always ask ourselves what difference a claim (an idea, opinion, belief, or evaluation) will make if we let it guide our actions. Likewise, there is no such thing as an abstract and unconditional truth removed from any context of practical action; truth is always a claim that is conditional on some practical context in which the claim can prove its worth.

Clarity of meaning and of validity are two different but interdependent aspects of pragmatic reflection:
Pragmatic test of clear meaning: A necessary (but, to the critical pragmatist, insufficient) test is furnished by the question: How does this idea change our views, that is, the ways you and I and everyone else concerned see or experience a situation or issue of mutual interest? A more sufficient test will moreover ask whether all those concerned can be moved argumentatively to see it in the same way, if they don't agree in the first place. (I say "more sufficient" rather than "sufficient" because any such test depends on appreciations of anticipated consequences and of what they mean to all those effectively or potentially affected; only practice itself can show whether the test was properly done.)

Pragmatic test of clear validity: A necessary (but, to the critical pragmatist, insufficient) test is furnished by the question: Are you and I and everyone else concerned by this claim prepared to act upon it? Again, a more sufficient test will moreover ask whether all those concerned can be moved argumentatively to approve such action.

For the pragmatist, all claims to meaningfulness and validity must stand this double test of clear thinking. If a claim fails either test, the pragmatist will assume that a claim's meaning and/or validity are unclear and may be controversial. The critical pragmatist will of course apply the "more sufficient" version of each test, but even so will refrain from ever taking meaning and validity for granted.

Unfortunately, in the popular reception of philosophical pragmatism, such pragmatic reflection has often been misconstrued in merely subjective, psychological and utilitarian terms, as if it were ever sufficient for a claim's worth (meaningfulness and validity) that some people like it or find it useful for their individual purposes, whatever other people may object. Of course this is not so; no serious pragmatist philosopher will subscribe to such an understanding of pragmatism, for it would run counter to all notions of responsibility and ethics. For a critical pragmatist, it is therefore important that the questions of clarity of meaning and validity are always understood as philosophical questions, that is, in the terms of epistemological, methodological, and ethical argumentation and critique. As soon as we
accept the philosophical nature of any claims to clear meaning and validity, it is obvious that the standard reproach leveled at pragmatism – that it avoids rather than answers the questions of truth and rightness – hits a mere caricature of pragmatism. Critical pragmatism cannot avoid the philosophical issue of how in the practice of research and professional intervention we can make sure that our findings and conclusions are clear and valid, and what we mean by such claims in the first place.

Far from reducing such philosophical to merely psychological and utilitarian questions, critical pragmatism in fact expands the universe of epistemological, methodological and ethical discourse. It no longer conceives of knowledge as a matter of empirical data and theoretical explanation only but accepts that knowledge has something to do with the way we understand and handle the relationship between theory and practice.

**Beyond empiricism and rationalism** As compared to previous empiricist and rationalist conceptions of knowledge, it seems to me that a pragmatist conception of knowledge involves at least *three essential shifts of perspective*:

- **In distinction to empiricist conceptions of knowledge**, philosophical pragmatism examines claims to knowledge from an *agent's rather than observer's perspective*. That is, it involves – whether explicitly or implicitly – an action-theoretic frame of reference rather than a merely theoretical-empirical frame of reference.

- **In distinction to rationalist conceptions of knowledge**, philosophical pragmatism examines claims to knowledge with a view to *concrete contexts of action rather than abstract conceptions of nomological (law-like, universal) truth*. That is, truth for the pragmatist comes in the form of "concrete truths in the plural" rather than of some abstract and unconditional "truth with a big T" (James, 2000, p. 102).

- **In distinction to both empiricist and rationalist conceptions of knowledge**, philosophical pragmatism looks at claims to knowledge not only with regard for *factual and theoretical assumptions* (e.g., are our observations correct, and how well do they support our findings
and conclusions?) but equally for assumptions about the relationship between theory and practice (e.g., how do we translate this knowledge into rational action?).

**Beyond, not against theory** Unlike what is often assumed, a pragmatist conception of research need not be inimical to theory and to promoting the kind of theoretical and methodological competence that science can contribute to sound practice (e.g., understanding of relevant facts and causal or statistical relationship as well as corresponding means-end relationships). However, it will try to avoid the kind of excessive claims to theoretical knowledge and competence that researchers often tend to raise with regard to practical issues, for instance, when they equate their theoretical competence with an advantage of competence in defining what is “the” problem to be solved or what constitutes “the” right solution.

Pragmatism does not deny that empirical and theoretical knowledge is necessary for rational action; it only denies that such a knowledge basis represents a sufficient condition for rational action or even constitutes its essential quality. The point is that there is an important asymmetry between theory and practice: while good theory does not automatically lead to good practice, bad theory (in the form of incorrect assumptions of fact and causal or means-end relationships) does lead to poor practice. This is what we mean when we say that sound theory is necessary but not sufficient for sound practice. Examples are not difficult to find; one may wonder, for instance, whether current management theories furnish an adequate basis for management education and practice (Ghoshal, 2005). Once again we thus find that a standard charge leveled at pragmatism, its allegedly being inimical to theory, hits at a mere caricature of what a pragmatist conception of research is all about.

**Embedding theoretical in practical reason: the critically pragmatic imperative** For a critical pragmatist, theoretical and empirical knowledge are of limited value unless they are embedded within practical-normative reasoning, that is, go along with systematic reflection on the normatively conditioned nature of all claims to knowledge and rationality. To be sure, the extent to which this requirement applies may vary with the specific context.
of research, depending on whether we are looking at a context of predominantly basic or applied research, and on whether eventual contexts of application are more or less controversial regarding appropriate ends and means. But since all knowledge may eventually lend itself to some practical use (at least we can never exclude that this will be so), and since its meaning and validity can only be judged against some context of application (a matter of choice), critical pragmatism holds that the normative element is always present.

The requirement of "embedding" theoretical within practical-normative reasoning may at first look more abstract and remote from practice than it actually is. In fact, this basic tenet of critical pragmatism translates into an easily understood, practical recommendation:

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To understand what a knowledge claim means and how valid it is, consider its possible consequences in alternative contexts of application. Then ask yourself what these consequences mean for the different parties concerned (test 1) and whether, if you were in their place, you would approve them (test 2).

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I will refer to this recommendation as the critically pragmatic imperative. It is the critical pragmatist's equivalent to Peirce's (1878) well-known pragmatic maxim; in distinction to Peirce's maxim, our criterion asks not only for clarity of meaning but also of validity, and to this end considers alternative contexts of application. This reformulation of the pragmatic maxim means that ethical reasoning becomes an intrinsic and mandatory part of pragmatic reflection, although in other ways than in Kant's (1785, 1788) "categorical" moral imperative. I will deal with the ethical implications of a thus reformulated pragmatic maxim – as I see it, a cornerstone of critical pragmatism – in a future contribution to this series; for the time being, the interested reader may find a fully worked-out argument elsewhere (Ulrich, 2006).

At this point of introducing critical pragmatism, it is quite good enough for us to note that it relies on a fundamentally two-dimensional concept of rationality. More than other version of pragmatism of which I am aware, it adopts a Kantian conception of reason, according to which claims to
rationality are inextricably rooted in theoretical and in practical assumptions. That is, the quest for rationality always involves empirical claims (i.e., factual assertions: What is the case?) and normative claims (i.e., ethical assertions: What ought to be the case?). Clarifying our underlying concept of rationality is important, for neither in research nor in practice can we avoid raising or implying claims to rationality (i.e., to the argumentative defendability of our propositions, assumptions, or actions); but such claims always lead us beyond the reach of theoretical questions into the realm of practical-normative questions.

I would argue that this two-dimensional understanding of rationality is at the heart of what distinguishes a critically pragmatist conception of research not only from other forms of pragmatism but also, and more importantly, from mainstream science theory. Science theory tends to move in the theoretical-empirical dimension of reason only, for it lacks the methodological means for dealing systematically with the other, practical-normative dimension of reason.

In the next Bimonthly, we will consider a major representative of mainstream science theory, Karl R. Popper's (1959, 1963, 1972) critical rationalism, and see what difference the kind of critically pragmatist considerations we have formulated thus far might make.

To all my readers I wish a happy last few weeks of the year. Thank you for having occasionally visited my site and spent a few moments with me. Hope you will be back next year!

Werner Ulrich

References


Picture data  Digital photograph taken on 21 November 2004 around 5 p.m. near Bern, exposure time 1/500 seconds, aperture f/3.2, ISO 50, focal length 9.63 mm (equivalent to 43 mm with a conventional 35 mm camera). Original resolution 2272 x 1704 pixels; current resolution 700 x 525 pixels, compressed to 116 KB.
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Last updated 19 Nov 2006 (first published 12 Nov 2006)