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Research, Practice, and Research Practice

◀ **Previous** |

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"Research practice" My writings often are about "research and professional practice," meaning the practice of research and of professional intervention. I am interested in *research as a practice,* that is, in the question of how practical circumstances shape the ways research is understood and used. Among the practical circumstances in question are the aims researchers pursue; the conditions under which they work (e.g., financial limitations, institutional pressures, and professional standards); the roles and responsibility researchers assume or are expected to assume in different societal and cultural settings; and others.

In addition, there is also a deeper, more philosophical (but by no means less influential) dimension of research that I associate with its "practical" side. I often refer to it in my writings as the "other" dimension of reason (or of rationality), the *practical-normative dimension of reason,* which in my understanding of good research practice must go hand in hand with its usually dominating dimension, the theoretical-instrumental dimension. I have recently dedicated an entire *Bimonthly* essay to the question of what *practical reason* is and why it matters**:** it responds to the normative core of all practice (see Ulrich, 2011b).

What is good research practice? All these aspects come together in the central question that interests me in my current work**:** *What is good research practice?* The question interests me particularly in "applied" contexts of research such as they are given in scientific advice to politics or research-based professional intervention in general. It then translates into a closely related question**:** *What is good professional practice?* The crucial issue remains the same**:** What does it mean to be proficient or "competent" in the production and use of knowledge or any other form of special expertise? (By expertise I mean all forms of proficiency regardless of whether they are acquired through research training and practice or through other forms of

practice and experience.) In short, how can we become *competent research practitioners* or professionals?

The question, of course, aims at the deeper connection between "research" and "practice." My impression is that the connection between research and practice is not well understood. I suspect this is why there is so little secure knowledge and agreement about what *good research* (often also referred to more specifically as "sound science," meaning competent practice of scientific research) and *good practice* (or sometimes more specifically, "best practice," meaning competent professional practice) mean. Accordingly little help is offered to research practitioners who turn to the literature on *philosophy of research* and philosophy of science on the one hand, and to the literature on *philosophy of practice* and on professionalism on the other hand. The two bodies of literature – research theory and theory of practice – appear to suffer from the same kind of illness**:** authors usually focus on one side while neglecting the other. As a result, there appears to be widespread disagreement and confusion about both concepts, "research" and "practice."

Good research To begin with *research,* it has become a rather overused designation for any kind of knowledge work (particularly paid work), regardless of how well-founded and relevant its results may be. The circumstance mirrors both the prestige of research and the lack of a general, yet operational theory that would explain how research has to be done and what criteria it needs to meet. The philosophical difficulty behind this lack of theory is that the validity and relevance of knowledge is hardly ever entirely independent of the issue or situation for which it is to be valid and relevant. This is so because validity and relevance are *pragmatic,* not logical categories. What we consider as knowledge, and what not, has consequences that different parties will tend to assess differently, depending on the different ways these consequences may affect or concern them. Chances are that claims to knowledge get contested as soon as they really *matter* for some real-world context of decision-making or action, which is to say they make a difference to what counts as a rational way of handling the situation.

Except when claims to knowledge move within a merely analytical universe (as is the case with mathematics and deductive logic), the question of what is valid and relevant knowledge thus always raises the *pragmatic issue:* What

do the different parties involved or interested *want* to consider as valid and relevant knowledge? Hence, as a further consequence, it also implies the *ethical issue:* What *should* count as knowledge? It is to these pragmatic and ethical dimensions of knowledge that the two knowledge sociologists Berger and Luckmann (1966) implicitly refer when they assert that *all knowledge is socially constructed.* These pragmatic and ethical implications explain why non-analytical knowledge cannot be understood and justified in abstraction from the contexts within which it is produced and used (I will not further consider merely analytical claims here, as no kind of practice can be justified on the basis of merely analytical reasoning).

What claims to knowledge mean and how valid they are is thus in most cases a function not just of theory but also of practice – another way to say that it makes sense, and indeed is philosophically necessary, *to understand and improve research as a form of practice.* To be sure, theoretical considerations and questions still matter; but so do the practical considerations and questions that are associated with claims to knowledge, in the everyday sense as well as in the philosophical sense of the word "practical." Well-understood research must consequently deal carefully with both the theoretical-instrumental and the practical-normative presuppositions and implications of its own claims to knowledge, that is, the claims it associates with its procedures and results. Accordingly demanding is the quest for good research. It is no surprise, then, that to date we do not have a clear and operational – much less a generally accepted – theory of research.

Good practice Perhaps even deeper goes the lack of generally accepted and operational theory – or, to phrase it in a way that may be more adequate, the lack of philosophical clarity – with regard to *practice.* I suspect this lack of clarity is one of the deepest sources of our contemporary mess; of the disastrous state of the world in terms of justice and fairness, equality of chances, human rights and dignity, social security, intercultural understanding, environmental sustainability, and rights of animals, to mention just a few major issues. Good practice would clearly be *moral practice;* that is, we would need to be able to demonstrate that its implications (including its long-term consequences and possible side-effects) alleviate rather than exacerbate existing deficits of justice, cooperation, and

sustainability.

Once again we encounter the deep connection between research and practice: the search for relevant knowledge and the quest for responsible action cannot be separated. Because good practice raises moral issues, it also puts correspondingly high demands on our cognitive abilities to understand and foresee what may happen in the future and what it takes to handle things responsibly, within and outside the current context of practice. Nobody can really claim to have all the necessary knowledge that others don't have, just as nobody can claim to be the moral arbiter for all others. In the complex and interconnected world we live in, the boundary between cognitive and moral requirements has become slim and difficult to draw. Accordingly demanding is the quest for good practice. Not surprisingly, again, we do not have to date a clear and widely accepted notion of good practice, much less one that would not only be well grounded theoretically or philosophically but would also lend itself to being practiced.

Yet without a clear and arguable notion of good practice, it is indeed difficult to secure adequate action, including adequate use of available knowledge and production of new knowledge, so as to *improve* things – the ways we cooperate and compete with other people, run our institutions and societies, and strive to improve our lives as well as the human condition in general. In almost any field of research and professional practice of which I can think, ensuring *good* practice is a real challenge. Even where a group of people agrees about their notion of improvement and about the means to achieve it, one can hardly ever claim to achieve it in a sufficiently comprehensive manner so as to do justice to everyone's concerns, including the concerns of those who may be affected without being involved. Nobody can get things right for everyone, here and now, there and in future. *Practice is unavoidably selective* with regard to the concerns it serves and others which it cannot equally serve. Accordingly precarious are any practical claims to securing improvement.

The quest for improvement All improvement that we can realistically hope to achieve will be of this selective kind. Selectivity is the fate of even the best practice we may hope to achieve. In this circumstance originates the *genuinely normative core that is inherent in all practice.* Research-based

practice makes no exception; for research practice, like any other practice, has no way of avoiding selectivity. Even the most carefully "rational" practice, research-based *and* morally considered as it may be, will raise issues such as whose problems should be taken up and whose not; whose concerns should matter and whose not; and consequently**:** whose rationality counts and whose not. Whatever the prevalent identification of the rational with the scientific may suggest to the contrary, there is no way to avoid or eliminate the normative implications of even the most rational practice. We need to face this *normative core of research practice* no less than that of any other practice, or we will fail to improve it in ways that are conducive to improving the human condition.

This normative core expresses itself, among other "practical" issues, in the earlier-mentioned question that always comes up with the quest for valid and relevant knowledge and thus also for "good" research that can secure it**:** *What should count as relevant knowledge?* And a determining factor for answering it will be the ensuing question**:** *What should count as improvement?* Note that the second question cannot be reduced to a question of ends only, in the sense that once the aims of a research effort have been chosen in an avowedly subjective (because value-based) way, researchers and professionals could then take over and secure good and rational practice on the basis of sound research. Rather, the normative resides in all the aspects of rational practice, including its basis of research and knowledge (ranging from "theoretical hypotheses" and "empirical data" to "research methods" and "findings and conclusions"). A symptom of this pervasively normative character is the frequency with which *scientific advice to politics* in virtually all domains of public policy, from educational to environmental and energy policy, leads to hot debates not only about the basic ends that such policies should serve but also (and more often) about the specific means that researchers and experts propose for reaching those ends and the knowledge basis they rely upon. How could this be so if it were not because the normative content in question indeed inheres not just in the ends but resides in the midst of what, once the ends have been defined, researchers and professionals are traditionally supposed to determine in impartial and value-neutral (if not value-free and "objective") ways, based on "sound" science rather than on subjective views and values**:** the means and

knowledge that permit achieving the ends?

The normative is inherent to the scientific at its very heart: it affects and pervades the very "technical" competence that Parsons (1939, p. 38) identified as the specific function and source of authority of researchers and professionals in our society (see the discussion in Ulrich, 2011a, esp. pp. 4-11). Necessary as technical competence is, it has no grasp of the normative core of "good" practice. It is a hopeless undertaking, therefore, to ground the quest for good research practice – and indeed the quest for "improvement" in any field of practice – in technical competence alone. Theoretical-instrumental reasoning can ensure good practice only inasmuch as it goes together with, and is guided by, practical-normative reasoning. To be sure, there is nothing wrong with theoretical and instrumental rationality, so long as we do not mistake it for all there is to rational practice – which is precisely the trap into which most conventional science theory falls in its accounts of "applied" science and research. A still influential example of such a theoretical-instrumental conception of applied research and hence, of research-based practice, can be found in the work of Karl R. Popper (e.g., 1961, 1963, and 1972; for critical discussion compare Ulrich, 1983, ch. 1, and 2006b).

Towards new research practice: two basic models If by "good research practice" we mean a practice of research that promotes improvement not only in the world of research itself but also in the world of practice outside the research community, it becomes important indeed that we understand the relationship between research and practice well. It is then hardly sufficient to ask what it takes to *improve research* on the one hand (the traditional preoccupation of research philosophy and science theory) and, separately, to *improve practice* on the other hand (the traditional preoccupation of practical philosophy). Rather, we must ask how research and practice can *improve one another*. I have argued why this is so: attempts to ground good research in research only, and good practice in practice only, fail to do justice to the *deep link between the two notions of quality involved*. We cannot understand well what it means to improve the quality of either without understanding what it takes to improve the quality of the other. This interdependence makes it understandable why in the past, neither research theory nor practical

philosophy have been particularly useful sources for researchers who try to improve their practice.

There appear to be basically *two options* for bringing the two sides closer together. We may start from a proven model of research such as science and can then attempt to expand its central notion of *observational quality* (controlled observation, resulting in high-quality experience and knowledge) so as to include other, non-observational forms of experience. Are there new forms of systematic inquiry that might help us achieve good practice? (Participatory observation, action research, and user involvement come to mind as examples.) Or we may start from a proven model of practice such as discursive resolution of conflicts and can then attempt to expand its central notion of *communicative quality* (undistorted communication, resulting in high-quality argumentation and mutual understanding) so as to include other, pragmatically and critically oriented forms of argumentation. Are there new forms of communication and discourse that might help us improve research? (Reflective practice, practical discourse models, boundary critique and what I call the "critical turn" of our notions of competence and rationality come to mind.)

As an example of the first, research-centered approach, my appreciated colleague at Lincoln University in England, Gerard de Zeeuw, has focused much of his work under the name of *second-order research* (or "research on research," R^2) on the idea of renewing our notion of science by working from the inside out, as it were, and in this way to encourage new models of systematic inquiry (Zeeuw, e.g., 1992, 2001, 2005, and 2011). As an example of the second, practice-centered approach, much of my work on *critical systems heuristics* (Ulrich, e.g., 1983, 2003; Ulrich and Reynolds, 2010) and, related to it, on "reflective practice" (e.g., 2000) and "critical pragmatism" (e.g., 2006a, 2007a, b), can be understood to focus on the idea of renewing our notions of competent research and professional intervention by challenging them from the outside, in the light of practical philosophy rather than science theory, and in this way to encourage new models of good practice.

De Zeeuw's perspective leads him to work at the limits of contemporary notions of scientific research so as to expand them towards new forms of

science**:** "Let us try and see whether we can render science applicable to new domains of inquiry and practice," is its motto. Conversely, my perspective works at the limits of contemporary notions of rational practice so as to expand them towards a new, critically-pragmatic access to the normative core of practice**:** "Let us try and see whether we can bring back in the normative dimension in a rationally practicable way," is its motto.

When I first encountered de Zeeuw's work in the mid 1990s, I found it difficult to understand; but as I begin to appreciate it more and more, I learn that his and my concerns, however different our starting points and our language may be, are really in a deep sense complementary and are ultimately bound to meet in some richer, integrated notion of good (or at least, improved) research practice. In one way or another, the two sides *have to* move closer, if only because there is no good alternative. Fortunately, as so often, the theorists are lagging behind what is actually happening out there in the real-world of research practice. For example, it is more and more becoming an accepted if not mandatory part of good practice in an open and enlightened society to involve all the parties concerned – the so-called "stakeholders" – and to give them a voice in defining what in a specific situation should count as improvement and/or as rational practice (e.g., by institutionalizing new forms of participatory practice such as citizens' juries, planning cells, and hybrid fora of communication between researchers and citizens). Likewise, though often indirectly via the institutionalization of new forms of participatory practice, it is also becoming quite normal that citizens have a voice in defining what should count as valid and relevant knowledge in matters that concern them (e.g., by drawing on the expertise of those who may be affected by the consequences that some claim to knowledge or improvement may have, or by bringing in multiple and critical perspectives through outside monitoring and evaluation research).

In sum, I believe that recognizing and deepening the link between our notions of good research and of good practice is key to making both stronger. If this assumption is not entirely misguided, a basic step towards improvement is surely to see and promote *research as a form of rationally motivated practice;* that is, as a force that shapes (and can improve) mutual understanding and deliberation on what is to count as rational action both

within and outside the world of research. Simultaneously, it will help our understanding of the quest for improvement if we always see and promote *practice as a form of critically considered inquiry,* that is, a force that shapes (and can improve) mutual understanding and deliberation on what is to count as relevant knowledge.

"Mode 2" research? I have mentioned, along with the two basic suggested options for developing a new understanding of research practice, a few examples of change as it is already occurring in real-word research contexts everywhere and which may be understood to point towards a gradual strengthening of the link between research and practice. The good news is that it happens; the not so good news, that it finds us unprepared. It happens before we fully understand its implications for "good research" as well as for "good practice." Research theory is lagging behind all those many practicing researchers who sense that change is needed and who therefore are prepared, for example, to experiment with new forms of user involvement. This situation – a lack of adequate theory meeting with a felt need for practical change – may explain the wide-spread attention and discussion that *"Mode 2" research* (Gibbons et al., 1994) has received. To be sure, it remains a matter of dispute whether and to what extent the proclamation of Mode 2 research relies on well-established facts, but such a state of the matter is quite normal for a gradually emerging change. Of greater concern to me is that the current hype around Mode 2 research appears to owe its prominence not so much to a *philosophically* well grounded proposal for improving research practice (something its authors, to be fair to them, do not claim to offer) than to a carefully observed *sociological* statement of gradual changes in the ways we produce and use knowledge. Let me explain.

The central tenet of *The New Production of Knowledge* is that it happens in the *context of application,* a concept that is also central to my understanding of research and professional practice in *Critical Heuristics* (see, e.g., Ulrich, 1983, pp. 20n, 67n, 74, 134, 198 and passim; 1984, pp. 326-328; 1987, pp. 276, 278, 281f; 1993, pp. 592-594, 598; etc.). To observe empirically that the context of application is indeed gaining in importance is certainly encouraging; but it is not sufficient. It is equally vital to explain, as I tried in *Critical Heuristics,* its theoretical and methodological implications for the

pursuit of high-quality research and professional practice, otherwise we cannot control and improve its quality.

Without proper philosophy, we can do little to improve research practice as we observe it or desire to see it. There is, I would argue, *no way round grounding the new research practice in new research philosophy.* The latter can at best be said today to exist in fragmentary form (compare the two models outlined above). One thing seems clear**:** an adequate research philosophy for our epoch will need to overcome the current split between, on the one hand, a research theory that attends to the theoretical-instrumental dimension of reason only and, on the other hand, a philosophy of practice that attends to the practical-normative dimension only. Instead, it will need to be grounded in and promote a genuinely two-dimensional concept of adequate research practice, a concept that will take the practical-normative dimension of rational practice as seriously as its theoretical-instrumental dimension. Only thus, it seems to me, can we "reasonably" expect to bring the two sides together in a productive, mutually supportive way. The new production of knowledge implies a far-reaching *Challenge to Reason* (Churchman, 1968b).

Some personal efforts and opportunities In the past I have pursued my personal quest for an adequate understanding of research practice – and for meeting the challenge to reason that it implies – by engaging myself both as a research practitioner and as a research philosopher. My practical engagement has included many years of practice as evaluation researcher, policy analyst, and poverty researcher in the public sector, as well as efforts to teach good research and professional practice to future professionals and decision-makers along with some engagement in the area of adult education. These efforts have certainly taught me a lot about the difficulties (and indeed, the challenge to reason) involved, but they have not left me hopeless. Philosophically speaking, it is obvious after what I have said that I believe there is room for improvement; practically speaking, my years as a chief policy advisor suggest to me it is equally obvious that decision-makers and practically engaged people today need and are demanding better support from "the experts" than they have received in the past. The pressing problems of our epoch, both in the public sector and in the corporate world,

leave us no choice.

As to my theoretical and methodological engagement, I have referred to some examples of my work above and there is no need to repeat these hints; interested readers may in addition want to compare my three series of bimonthly essays available in this web site, on "The greening of pragmatism" (beginning with Ulrich, 2007a), "Reflections on reflective practice" (beginning with Ulrich, 2008), and "What is good practice?" (beginning with Ulrich, 2011a).

I would like to conclude this essay with a hint at an opportunity I recently had to specify some of my ideas about "good research practice" for practitioners in the field of *operational research* (OR). OR is a field of applied research and professional practice that has been home to the development of the "systems approach" (Churchman et al., 1957; Churchman, 1968a, 1971, 1979) and to many subsequent developments in applied systems thinking, among them the efforts of my "systems" colleagues Peter B. Checkland (e.g., 1981, 1985; Checkland and Holwell, 2001; Checkland and Poulter, 2006, 2010) and Mike C. Jackson (e.g., Jackson and Keys, 1984; Jackson, 1990, 1999, 2000; Flood and Jackson, 1991) and others. To readers who would like to gain an up-to-date overview of the scope of contributions to this discussion and the "systems thinkers" involved, I recommend consulting the two excellent collections by Ramage and Shipp (2009) and Reynolds and Holwell (2010).

The field continues today to be open to lively and innovative discussions of methodological issues. This has motivated me to try and outline a critically oriented framework for applied systems thinking in OR, a framework that would take seriously the concerns formulated in the present essay regarding the neglected "other," practical-normative dimension of research practice. Taking up the challenge, a two-part essay forthcoming in the *Journal of the Operational Research Society* examines what "good research practice" might be understood to mean in OR and in related areas of applied research and professional intervention (see Ulrich, 2012a and b)

Yet another recent opportunity to try and develop new ways of supporting research practice arose as a result of my engagement as a co-editor of the

Journal of Research Practice (JRP). I have reported about this initiative in one of my last *Bimonthlies* (see Ulrich, 2011c).

To be sure, my work on the notion of good research and professional practice goes on. In the near future I hope to complete my two uncompleted series of reflections on "Reflections on reflective practice" (the first essay being Ulrich, 2008) and on "What is good professional practice?" (the first essay of which was Ulrich, 2011a), whereby completing the latter is to help me complete the former. This is how I hope to continue my way, step by step and with some inevitable detours, towards the long-term vision of a *philosophy for professionals* that would be grounded in practical philosophy and pragmatized through "critical pragmatism" (see Ulrich, 2007b) and in this way would breathe life into the "new research philosophy" of which I have been speaking here. It's a long and partly steep way to go, but without daring to take some small steps at least, no progress can occur. Thanks for sharing with me the present, small step.

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Picture data Digital photograph taken on 27 April 2010 around 5 p.m. ISO 100, exposure mode aperture priority; aperture f/5.0, exposure time 1/800 seconds, exposure bias -0.70; focal length 64 mm (equivalent to 128 mm with a conventional 35 mm camera); metering mode center-weighted, contrast soft, saturation high, sharpness soft. Original resolution 3648 x 2736 pixels; current resolution 700 x 525 pixels, compressed to 140 KB.

March 2012

Su	Mo	Tu	We	Th	Fr	Sa
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

April 2012

Su	Mo	Tu	We	Th	Fr	Sa
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22	23	24	25	26	27	28
29	30					

March-April, 2012

Research practice involves selectivity (e.g., of focus)

March April

Research practice involves selectivity…

„What claims to knowledge mean and how valid they are is a function not just of theory but also of practice – another way to say that it makes sense to understand research as a form of practice."

(From this *Bimonthly* reflection)

◄ **Previous Picture**

Personal notes:

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