On operationalizing critical pragmatism for professional practice:

An open letter to Werner Ulrich by Richard J. Ormerod, Guest Author

Dear Werner,

I have read your recent Bimonthly on pragmatism and professionalism, titled "Philosophy for professionals: towards critical pragmatism" (Ulrich, 2016). This was the seventh in your series of "Reflections on Critical Pragmatism." It took me back to the dialogue we had on the topic of critical pragmatism in 2006 and 2007, after the publication of my paper "The history and ideas of pragmatism" (Ormerod, 2006). In my paper I was trying to understand pragmatism and draw conclusions for my particular profession, operational research (OR). When I look back on our collaboration since, including our joint paper on "Operational research and ethics" (Ormerod and Ulrich, 2013), it has been highly productive from my point of view, particularly as I was able to witness your intellectual struggles and gain a little insight into the difficulty of advancing philosophical ideas with a view to supporting practice. Despite the inevitable difficulties involved when a philosopher's and a practitioner's views and interests meet, I found this exchange relevant as it was based on a shared belief that pragmatic philosophy and professional practice can learn from one another.

Working together and trying to build a stronger bridge between philosophy and practice is thus a meaningful, if difficult, endeavor. With this open letter, I would like to take up the challenge and contribute some ideas on it that are based in my professional experience as an operational researcher. My focus will be on your observation, in your recent essay, that a lack of operational concepts and tools has hindered the practical reception of pragmatic philosophy in the past, and that one of the methodological challenges in advancing critical pragmatism must therefore be to pragmatize philosophical pragmatism by developing operational tools for critically pragmatic practice.
Building a bridge between pragmatic philosophy and professional practice

One phrase in your last Bimonthly struck me particularly. Following the discussion of two examples of concise application of pragmatic thought by two of its pioneers, Oliver Wendell Holmes (1881) and John Dewey (1938), you say this on the uncompleted task of operationalizing pragmatism:

... the difficulty remains Still, I would maintain that the tradition of pragmatism as a whole, despite such occasional highlights of concise application, has hardly managed to work out and operationalize its essential methodological ideas so that they would be sufficiently accessible to practitioners and to students. Counter to what pragmatist thought is often accused of, its allegedly being too simple and superficial, the core difficulty in its reception history until today in fact appears to be that the way its originators described it is rather too sophisticated and perhaps too philosophical or too differentiated, but hardly too plain or even commonsensical. Whatever the diagnosis – in the end, pragmatically speaking, the issue remains the same: there is a lack of operational concepts and guidelines, checklists, and similar tools that could systematically orient and monitor reflective practice and also would help to teach it to students and practitioners. (Ulrich, 2016, p. 7)

A striking statement indeed! Can it be that pragmatism is not sufficiently pragmatic for practice? In order to follow your train of thought and try to understand why the difficulty remains, I decided to read the previous six Bimonthlies dedicated to reflections on critical pragmatism.1) I had previously read them one at a time, but in order to make it easier to follow the plot, I took the opportunity to read them all in sequence over a few days (like binging on a boxed set of DVDs). The seven Bimonthlies make a fine collection, easy to read and reasonably easy to follow given our previous interactions. My mind naturally turned to addressing the "remaining difficulty" which relates to providing methods and tools for practitioners, particularly because you invited contributions from others including practitioners. Despite spending the last ten years of my career as an academic, I still consider myself to be at heart a practitioner and I offer the following contribution as an OR practitioner. First, let me remind you about the nature of OR.

As you know OR is a profession that evolved out of the assistance given during WW2 by scientists (of various hues) to the military on how to make...
the best use of the means at their disposal (for, instance how to deploy radar, how to search for submarines and so on). The scientists would use a mixture of scientific inquiry, mathematical analysis and common sense. From these beginnings OR has developed into a professional practice (usually in the form of internal and external consultancy) and is now deployed in a range of commercial industrial, governmental and not-for-profit as well as military contexts. OR consulting activities range from developing mathematical algorithms (for instance, for assessing the risks of lending to a particular consumer) to designing and facilitating participative processes to evaluate proposed infrastructure projects with social, economic and environmental impacts. Algorithmic work is similar to engineering; evaluative work is akin to policy analysis. In between these two extremes, OR practitioners might be engaged to investigate issues perceived to be problems by managers and explore the options using quantitative and qualitative analysis as appropriate. Overall, OR practitioners are generally in the business of helping managerial decision-makers and their advisors take decisions or, less usually, helping non-managers take or influence managerial decisions. OR offers practical advice to people taking decisions in practice.

**From life to logic to practitioner methods and tools** In developing pragmatism, Charles Peirce (1878) and later John Dewey (1938), two of the originators of pragmatism, started from a naturalist perspective. They depict man as an inquiring animal which developed the habit of understanding its immediate context to inform its actions to ensure the food and safety necessary for survival. As signs and grunts between members of the family and between hunting partners developed into spoken language, the possibility evolved of discussing and reflecting on what they were already in the habit of doing. Eventually logical theory developed from this discussion. Thus inquiry and action gave rise to theory, not the other way round. Dewey (1938) expands on this in his book *Logic: The Theory of Inquiry*. It was this emphasis on inquiry (along with the excitement of the story of the emergence of pragmatism in the intellectual ferment in 18th century America) that motivated me to write my paper on pragmatism.

Not surprisingly, I found that pragmatism fitted the practice of OR very well; after all, OR is a profession dedicated to conducting inquiries. One conclusion could be to just carry on as usual, as we were already, in effect,
pragmatists. But as you have frequently pointed out OR may well be quite sophisticated in developing and testing theories, but has been relatively slow to develop to the same level when it comes to handling (ethical) values. This imbalance stems from OR’s roots in natural science rather than social science; its emphasis consequently is on things rather than people, on the quantitative rather than the qualitative. I hope you would concede though that over the last 30-40 years, as a result of your efforts and those of like minded people, the level of awareness of such issues in OR has improved somewhat: from the direction of science, multi-criteria decision analysis ensures that cost minimization or profit maximization objectives are now frequently considered in conjunction with other values arising from ethical and environmental concerns; from the direction of social science and philosophy, "soft" OR methods (based on the understanding that different people see things differently and need to be involved in the process of inquiry and decision making) have been developed and have, at least to an extent, become part of the OR practitioner's tool kit and have affected the way that some practitioners think about problems. Your CSH and its twelve boundary questions have been welcomed as part of the OR academic debate but have not as far as I know made much headway in achieving OR practitioner take-up – perhaps there has been some at the policy end of the profession, but little or none at the algorithmic end where the weight of OR activity lies.

You will note that I keep talking about OR practice whereas you target a much wider group of professionals. But, of course, by definition a practitioner is always rooted in a particular profession. I presume the spread of interest in CSH across other professions is rather similar, ranging from plenty of interest among planning and evaluation professionals to practically none among civil and mechanical engineers. You (and your readers) are in any case stuck with the problem that in order to listen to the views of a practitioner one has to accept that he or she will prefer to talk about the particular, rather than the abstract universal principles, particulars that are based on experience, which is usually gained in one particular profession. I am no different in that respect. Quite apart from the burden that this places on your readers and your good self, it points to the fact that the very practitioners whom we want to adopt critical pragmatism will judge it by the ease with which they can understand the general orientation and can imagine
the potential use to which the methods and tools could be put – *in their particular context as they perceive it*. Of course, continued use, and a deep understanding of the methods, only come from the experience of using the approach. For this to happen the basic ideas need to be theoretically sound (your department), the presentation – the packaging – needs to appeal (practitioners might be able to help here), and the experience of use needs to be good (only practitioners or perhaps academics in consulting mode can help).

It is worth considering why one approach, that of Peter Checkland (1981), your collaborator in your Lugano Summer Schools and one of the originators of "soft OR," has been so successful in doing something very similar.

Soft systems methodology (SSM) as example of successful dissemination

SSM has now been widely taken up by various practice disciplines including OR and software engineering. Of course, there are several factors that led to the success of SSM, not least the basic ideas and way of thinking it encapsulates, the dissemination via an MSc programme and the many published case examples of assignments he and others undertook. However, I think something can also be learnt from SSM in terms of format and presentation.

In its initial conception SSM had seven steps: (1 and 2) understanding the context (tool: rich pictures representing the actual); (3) developing system root definitions (acronym: CATWOE); (4) drawing an idealized model of the system (tool: conceptual modeling); (5) identify potential improvements (method: compare ideal in step 4 with actual in step 2); (6) evaluate potential improvements (method: debate the desirability and feasibility of the proposed improvements); (7) take action to improve structures, procedures and/or attitudes. At any stage iteration can and usually does take place as some part of the previous analysis is found to be inadequate. After implementation in step 7, reality is changed and one is back into steps 1 and 2. The whole process is iterative and flexible; steps are generally revisited as new information (including viewpoints) comes to light. You can see the advantage of supporting debate with very simple methods and tools which the practitioner can easily remember and apply; CATWOE in particular is an easy to remember checklist of the elements that are needed to define a
system (Customers, Actors, Transformation, Weltanschauung, Owners and Environment). These items are to be debated by participants, usually resulting in several different points of view. The issues are often intellectually complex yet supported by a very simple tool. The result is that Checkland’s formulation for inquiring into the problem is elegant and helpful in stimulating relevant conversation. In my view it sets the standard for which we should strive.

The difficulty of providing methods and tools for pragmatism Part of the difficulty as I see it lies in the fact that the classical pragmatists argued that there should be no set method of inquiry; each investigation depends on the circumstances as they are understood at the time. In the past you have finessed the problem, not by laying down a method of inquiry but by suggesting questions to be debated as the inquiry unfolds; I am referring, of course, to the twelve boundary questions of your Critical Systems Heuristics approach (Ulrich, 1983). These struck a chord with me when I was an active practitioner. However, you now want to go further and provide help to the practitioner to “operationalize” critical pragmatism. I have no doubt that practitioners would take more interest in critical pragmatism if some such guidance was given in the form of “what steps to take and how.” There is a demand for frameworks, methods and tools even though as pragmatists we would want practitioners to adapt them to suit their circumstances and needs. In other words, it should be made clear that the methods and tools that you eventually settle on carry no authority, they are only suggestions. I think it is possible that such an approach consistent with critical pragmatism could be developed. In the end it is the responsibility of a practitioner to design a suitable intervention for his or her particular investigation.

The philosophical theory, with which Checkland underpins SSM, was developed from his experience of struggling with problems as a practicing manager; the theory followed the practice. Therefore, like the originators of pragmatism and Checkland, I will start with what practitioners actually do (in my experience) and see how the logic evolves from there.

The experience of conducting OR projects in practice In general, there are three steps in an OR project. First, a proposal has to be written, which, if accepted by the prospective client, results in a contract. Second, once the
contract has been agreed, the intervention is designed in detail; the result is a plan. Third, the plan is put into operation until the envisaged end point is reached or whenever either the client or the consultants decide to bring it to a close. Within each phase there are a number of activities to be undertaken; typically each step involves the following:

**Step 1, writing the proposal** The opportunity to submit a proposal to a client may come about in many ways, from having a personal contact to receiving a formal invitation to tender. At one extreme you start with a blank piece of paper, at the other the client supplies you with a brief. Either way, to submit a proposal you need to get to understand the client’s requirements, produce an initial project plan and estimate the costs. To understand the client’s requirements involves talking to the client (and maybe others) about the context, the scope of the envisaged engagement, the aims and values of the client, and the competences that from your side can be brought to bear. As the conversation proceeds, both parties may want to change their initial views; for instance, when clients realize the cost of some of their requirements they sometimes decide to reduce the scope, or in other cases the consultant may decide to offer something radically different from the client’s original conception. It may take a few iterations before agreement is reached. All costs during this stage become part of the development costs of the consulting group (business or internal department). Output: proposal/contract including the aim, means, resources and costs and an outline project plan.

**Step 2, designing the intervention** Assuming the contract has been won, a detailed plan has to be drawn up to guide and control future activities. Of course, at this point there is already a preliminary plan in the proposal, but that would have been based on a fairly limited inquiry because there would have been no guarantee that the proposal would be successful and there would be no return on the costs incurred (for external consultancies, it generally takes 4-6 bids to win one job). The plan would need to break the project into phases with the tasks to be carried out within each phase, the resources that will be needed, and the expected output at the end of each phase (to be carried forward to the next phase). Methods and tools (for overall use or for individual phases) would need to be selected (some of which might be publicly available, some propriety, some personal, others...
might be invented there and then to meet the particular requirements of the project. Within each phase the activities or tasks are organized in series, parallel and in loops to achieve the phase’s aims. To carry out this design activity, more would have to be learnt about the context, the client’s intentions, the scope, and who needs to involved/consulted. This may be a matter of modest readjustment or the project definition may need to be radically rethought and the terms of the contract renegotiated. This step may require many meetings involving time and money which will eat into the agreed contract total. The plan will need to include regular reviews with the client (and perhaps a steering committee) to examine progress to date, future requirements and budgetary implications. The final phase is likely to focus on evaluating proposals in terms of the aims and values of the client organization and including all those affected by the proposals. At one extreme, for instance in the case of developing an improved algorithm for a commercial firm, the evaluation is likely to be based largely on the relationship between costs and expected benefits; at the other extreme, for instance in the case of large infrastructure projects raising economic, social and environmental concerns, the evaluation will be in terms of impact and conflicting viewpoints. Output: intervention design and a detailed project plan covering all aspects.

**Step 3, conducting the project** Now the plan is put into action phase-by-phase with cycles of inquiring, doing, reviewing and adjusting. The investigation is conducted through data gathering, discussion and analysis, communicating all the while with relevant parties. From time to time, progress is compared to that expected according to the project plan, particularly at the end of each phase but also at any time that some major new factor arises. As a result, the design and plans may be adjusted and in some case radically altered (including the possibility of terminating the contract). Final output: project findings and recommendations, the learning of all involved and, if appropriate, intentions/commitments of the client organization to implement the recommendations. The consultant may recommend further investigations and/or a plan of implementation. In the case of algorithmic development, it may be that implementation is included in the project and is the primary aim. Output: a professionally conducted intervention appreciated by the client and others involved and found to be useful.
What logic flows from the experience of conducting OR projects in practice? I have selected some examples of logical approaches/reasoning that can be observed in the practice of OR as described above. Of course, these are not unique to OR; I have favored those that I think are important and where pragmatism might have something to say. The likely application of each logic within each step is indicated in Table 1.

### Table 1: Examples of logic arising from OR intervention

<table>
<thead>
<tr>
<th>Type of reasoning</th>
<th>Project step</th>
<th>Step 1</th>
<th>Step 2</th>
<th>Step 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>The logic of trial and error</td>
<td>Propose</td>
<td>Apply</td>
<td>Apply</td>
<td>Apply</td>
</tr>
<tr>
<td>The commercial logic</td>
<td>Design / Plan</td>
<td>Apply</td>
<td>Apply</td>
<td>Apply</td>
</tr>
<tr>
<td>The logic of designing and planning</td>
<td>Operate</td>
<td>Approximate</td>
<td>Detail</td>
<td>Adjust</td>
</tr>
<tr>
<td>The logic of project management and control</td>
<td>Design</td>
<td>Anticipate</td>
<td>Design</td>
<td>Apply</td>
</tr>
<tr>
<td>The logic of method choice</td>
<td>Operate</td>
<td>Anticipate</td>
<td>Choose</td>
<td>Adjust</td>
</tr>
<tr>
<td>The logic of participation</td>
<td>Operate</td>
<td>Apply</td>
<td>Apply</td>
<td>Apply</td>
</tr>
<tr>
<td>The logic of inference</td>
<td>Operate</td>
<td>Anticipate</td>
<td>Plan</td>
<td>Apply</td>
</tr>
<tr>
<td>The logic of evaluation and choice</td>
<td>Operate</td>
<td>Anticipate</td>
<td>Anticipate</td>
<td>Apply</td>
</tr>
</tbody>
</table>

The logic of trial and error: The pragmatist position is that all inferences are fallible; as a consequence, everything has to be continuously evaluated as the project proceeds. As new information comes in and views change or become clearer, then plans of action have to be adjusted, radically changed, or abandoned.

The commercial logic: The overall logic of the three steps is the commercial logic of the project, without which nothing happens. Commercial logic will dominate except in relatively unusual cases, and it does have the merit of focusing minds on the efficacy, efficiency and effectiveness of an intervention in terms that all the parties can understand. But the dominance of commercial concerns raises ethical issues.

The logic of designing and planning: As we have seen above, designing and planning occurs in each of the steps; in the proposal step it is tentative based on limited information; in the design step, having developed a better understanding, a more detailed design and plan is produced; in the conduct
phase the plan will be further adjusted as new information comes to light. Thus designing and planning is crucial throughout the process. Each time this activity is carried out, it is a matter of understanding the context, the scope of the engagement, the aims and values of the client (and others involved), the competences that can be brought to bear and other factors such as the physical location of relevant sites and the ethos of the client organization. The plan will specify activities and their sequences, within phases.

*The logic of project monitoring and control*: The proposal step sets up the aims of a project in terms of costs, time scales, and the physical and intellectual goods to be delivered. The project design step builds in activities to keep track of these items at all times, but particularly at the end of each phase.

*The logic of method choice*: The methods referred to here are the mathematical, scientific and interpretive methods and tools used to conduct the analysis and guide the process of inquiry and the interactions between those involved. The logic here can be described as a two-step logic. The first step is to decide on a general orientation; will this be an exercise in mathematical and statistical analysis or a scientific investigation to discover the ‘facts’, or is it a matter of surfacing the views of different parties to try to find a way forward, or perhaps a combination of all three? Having decided on the general orientation, the second step is to choose among the various methods and tools designed to support the chosen orientation. The tolerant attitude taken by pragmatism towards methods and tools based on alternative philosophies – pragmatists do not worry about incommensurability, nor do OR practitioners – allows a free choice dependent only on the needs of the project.

*The logic of participation*: In OR there has been a gradual realization over a long period that it is vital to engage relevant people, not only in the final decision but at every stage in the process (the means-ends chains) leading up to the decision. “Participative processes” allow a wider group of people not only to have some influence (e.g., by being interviewed) but also to participate hands-on in the formative process of developing ideas and imagining consequences. The logic is that a wider variety and depth of knowledge is created and captured and the participants will become more committed to the success of the project. In particular, the people responsible
for implementing the decisions will be more likely to become fully committed
to the success of the enterprise and will more readily take ownership of
implementing the agreed proposals.

The logic of inference: One example of choice between among methods and
tools, frequently met in OR projects, is whether to try to draw inferences
from data using deductive methods only, or whether to allow inductive
methods as well, including abduction (inference to the best explanation) and
Bayesian inference (probabilistic reasoning).

The logic of evaluation and choice: At the core of pragmatism’s way of
thinking is the pragmatic maxim. The maxim asserts that the meaning of
objects, concepts, and statements lies not in their intrinsic merit but in the
effect they have. The project is designed to produce the effects that the
clients wants to achieve, while avoiding or minimizing those that they deem
to be undesirable. In choosing how to act so as to bring about (or move
towards) the desired ends whilst avoiding or mitigating unwanted
consequences, criteria have to be selected and assessed for their salience and
strength relative to each other; options have then to be considered against
each criterion.

Methods and tools for critical pragmatism James (1907, p. 29) says of
pragmatism: “At the outset, at least, it stands for no particular results. It has
no dogmas, and no doctrines save its methods.” He draws the analogy of
different groups of people who work on different problems in different rooms
of a hotel but all own and must go through the central corridor of pragmatism
if they want to get into or out of their room. The methods of pragmatism that
he refers to are not codified in a way that a practitioner might find useful but
refer to a general (scientific) orientation derived in the first instance from
experience. He says:

Ideas (which themselves are but parts of our experience) become true just in
so far as they help us to get into satisfactory relation with other parts of our
experience..... Any idea upon which we can ride, so to speak; any idea that will
carry us prosperously from one part of experience to any other part, linking
things satisfactorily, working securely, simplifying, saving labor, is true for just
so much, true in so far forth, true instrumentally. This is the “instrumental”
view of truth.... (James, 1907, p. 30; italics as in the original).

For pragmatists the search for truth is never ending. All theories are fallible.
Truth is something determined at a time, in a particular context, for a
particular purpose. It is instrumentally useful in getting things done. It helps ideas pass through the hotel corridor.

But we are seeking here specific methods for the practical purpose of helping professionals. We are free, of course, to open the doors to the rooms and make use of the methods and tools that we find have been developed. This is what I suggest we do – make use of existing tools developed in different hotel rooms. I have selected six tools that could be usefully deployed in an intervention (or in an engagement, inquiry or whatever you prefer to call it). The tools form an eclectic mixture derived from theory, experience and behavioral research.

**Tool 1. Orienting initial thoughts: reflecting on metaphors**  Before getting stuck in to designing a project it is a good idea to reflect on what sort of job this is: Are we looking at a machine that needs some fixing, or a brain that processes information, or an ecological system that evolves dynamically? In the OR context the idea of using *metaphors* has been advocated particularly by Flood and Jackson (1991) as part of their total systems intervention (TSI) approach. They describe TSI as "creative problem solving" with a debate on metaphors supporting the creativity stage. This is consistent with the pragmatists’ view that inquiry is a creative endeavor.

**Tool 2. Designing the intervention: choosing the boundaries**  This tool contributes to the logic of designing and planning both at the start and later when the position is reviewed, particularly if the project has strayed from the original design. Twelve *boundary analysis* questions, taken from Critical Systems Heuristics (CSH, Ulrich, 1983), are discussed, primarily by the consultant and client, who will bear in mind the orientation selected for the intervention. These twelve questions are first used during the proposal step and then revisited every time the project design and plans are reconsidered. Answering these questions ensures that adequate thought is given to the scope of the project and the use of competences, expertise, different viewpoints and authority in order to ensure that due care is taken in offering conclusions. CSH is deeply indebted to pragmatism and carries with it many of its orientations; its tool, the twelve questions, therefore has a clear place in any pragmatist's tool kit. CSH also draws attention to the fact that all anticipated actions have ethical consequences. Thus the building of a power station not only has consequences for society once it is built, but there are
also issues related to the impact on people and the environment along the way. One of the most important questions to be addressed is that relating to the people affected but not involved in the process; how are their interests taken into account?

**Tool 3. Designing the intervention: negotiating the aims, resources and constraints of the project**  This tool addresses the logic of design and planning directly. A list of factors to be considered can be found in my paper on "The transformation competence perspective" (Ormerod, 2008, p. 1437, Table 2). The challenge is to juggle the aims, resources and constraints so as to derive a plan that will deliver something the client wants, and will yield sufficient benefits at an acceptable (competitive) cost. There is no analytic way to come up with a design; a pragmatic approach of trial and error in dialogue with the client is required. Following the suggested approach of the pragmatists, all the factors have to be brought into balance. The main focus will be on the core issue, that is, determining the transformation required in the light of the competences that can be brought to bear on the project. The required "transformation" defines the ambition that is to be met by the craft skills and expertise of people, supported if appropriate by pre-defined methods. The available "competence" refers to the skills, the time and the ability to act of those involved in the intervention. In designing the intervention, activities have to be planned in the light of the transformation being sought, the competence involved and the methods available. Getting the balance right is what the transformation competence perspective is all about (see Ormerod, 2008).

One way of exploring whether the right transformation has been arrived at, is to ask the question: What Weltanschauung makes this transformation relevant? This is a question that sits at the centre of Checkland’s (1981) approach to defining a root definition of a human activity system. It is often intellectually challenging to do, but it ensures that careful thought is given to the relationship between the fundamental aims of the host organization and the specific transformation being sought.

**Tool 4. Controlling the project: tracking aims, benefits, costs, time and involvement**  This tool contributes to the logic of monitoring and control. It is, in effect, an extension of normal project management systems. Projects are notorious for losing their way in terms of the original intentions; clients
change the aims, problems are met, compromises are made. Costs and time are routinely monitored in projects, but it is equally important to keep track of aims and any benefits foregone as the project proceeds. If aims shift, some of the anticipated benefits may no longer be forthcoming or relevant and perhaps different people will have to be involved. Major changes, or an accumulation of minor ones, may throw cost and benefit out of balance; as a result, the project may have to be rethought or abandoned. Another important factor that needs to be monitored is the degree of involvement (enthusiasm and commitment) of parties who need to contribute to the project. This may be a matter of a senior manager making time available for meetings to authorize access to data or for taking some other key project-related decision. In participative projects such involvement may also be a question of the degree to which participants engage with others in workshops and in other ways; they need to be sufficiently motivated to contribute their knowledge, expertise and creativity.

**Tool 5. Controlling the project: tracking theories, proposals, actions, and consequences** This is another tool that can contribute to the logic of monitoring and control, alongside Tool 4. Boothroyd's (1978, pp. 141f; see also Ormerod, 2010, p. 1089) notion of articulate intervention characterizes a process of "articulate reflection" that leads to well-considered action. Crucial is that those involved in a project remind themselves of the conjectural status of any point of deliberation as they move towards decision-making or taking action. As a basis for such reflection, Boothroyd suggests to conceive of articulate intervention as a process in which one reflects on, and articulates, the "numerous latent theories" that may inform action proposals and, once implemented, then produce "cascades of consequences proliferating into the future." (Boothroyd, 1978, p. 141, cf. his Fig. 8).

**Tool 6. Evaluating proposals: the logic of evaluation and choice** Evaluative logic is clearly the main concern here. The activities of evaluation and choice bring all that has gone before into focus and can capitalize on what has been learnt by the involved parties about their own position and that of others. In this area OR excels; evaluation and choice lie at the centre of the discipline and have attracted intense OR research effort over a long period. There is a wide range of methods available that were developed specifically for this purpose coming under the general headings of decision
analysis (DA) or multi criteria decision analysis (MCDA), or multi criteria decision making (MCDM). At one end of the range are rigorous, highly sophisticated, quantitative and qualitative methods; at the other are very simple heuristics for narrowing down the options to be considered, for instance, "strike out an option if it fails to satisfy more than one of the key criteria, unless it is the best option for one of the other criteria." For a well tried and tested, rule based approach see Friend and Hickling (2005, pp. 43-53). The simpler the method, the more easily it will be understood and the easier it will be to engage participants. A balance therefore has to be struck between intellectual rigor and practical feasibility. The pragmatic approach is to choose a method that is fit-for-purpose and no more sophisticated than is necessary in the particular context of the decision makers and the decision to be taken.

Grounds for optimism? What I have tried to do here is to demonstrate that it is at least feasible to develop some tools to equip the critically pragmatic practitioner for the fray. Armed with these and standard project management tools, plus some others that no doubt will be added in time, OR practitioners would, I hope, be equipped to take on the imagining, designing and implementing challenge that they face in a manner consistent with, and informed by, a critical pragmatist orientation.

Does the problem still remain? Of course; how could it be otherwise. Is it a step in the right direction? That's for you and others to say. Is there more to do? Of course. One thing I have totally failed to do is to package and present the tools in an attractive way, the importance of which I emphasized at the beginning of this letter. For example, perhaps Tool 4 could be known as BATIC (Benefits, Aims, Time, Involvement, Costs) and Tool 5 as TPAC (Theories, Proposals, Actions, Consequences), pronounced as t-pac. Such aide memoirs help, but I think elegance does not really rest in acronyms; rather, it lies in crystallizing ideas parsimoniously in simple, transparent words and diagrams. A challenge for the future perhaps. However, we can think about a title: perhaps, critical pragmatism for practice (CPP); or maybe critical pragmatism for professional practice (CPPP) or (CP³), pronounced as CP-cubed.

And so to … the deck. Summer is here (in the south west corner of England
at least), and I am beckoned by the view of the estuary below and the
splendid sight of a steam train passing over the Royal Albert Bridge over the
Tamar, designed and built by the Victorian engineering genius Isambard
Kingdom Brunel. It is time to replenish my glass, enjoy the sunshine and take
in the view from my deck.

Regards, Richard

Note

1) (Editor's note) Readers will find the first six Bimonthly essays published in the series of
"Reflections on Critical Pragmatism" (i.e., Parts 1-6) listed in the References section of
Part 7, beginning with Ulrich (2006b). The hyperlinks provided there will lead you to
each of these previous articles. Alternatively, search the Publications section of this site
for "Reflections on Critical Pragmatism." [BACK]

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March-April 2016 (orig. version in: Journal of the Operational Research Society, 58,
Picture data  Digital photograph taken by R. Ormerod on 22 Nov 2015 at 4 p.m. from Plymouth in Devon, England, looking across the river Tamar to Cornwall. ISO 32, exposure mode automatic. Aperture f/2.4, exposure time 1/350 seconds, and exposure bias 0. Metering mode multi-segment, contrast normal, saturation normal, sharpness normal. Focal length 3.3 mm, equivalent to 42 mm with a conventional 35 mm camera (i.e., with a full-format sensor). Original resolution 1936 × 1936 pixels; current resolution 700 x 525 pixels, compressed to 213 KB.

May-June, 2016

Building a bridge between philosophy and practice: a pragmatic challenge

„It should be made clear that the methods and tools that we eventually settle on carry no authority, they are only suggestions.“

(From this open letter)

Previous Picture

Personal notes:

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