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Formerly "Picture of the Month"

September-October 2017  
*Systems Thinking as if People Mattered*  
Part 1/2: A Plea for Boundary Critique (a New Civil Competence)



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**Abstract** The current revival of civil society in many parts of the world is challenging traditional notions of citizenship and professionalism. There is a growing need to understand citizenship not only in conventional terms of civil rights but also (if not primarily) in terms of *civil competencies* and hence, to find sources of such competence that do not depend on any special expertise or access to information that would not be available to ordinary citizens.

This essay proposes, perhaps somewhat surprisingly at first, that systems thinking, properly understood, can become a source of such competence. A main argument is that *boundary critique* – the use of systemic boundary judgments for purposes of self-reflection and critical argumentation – may have an essential contribution to make to this end. The essay explains how this methodological core idea of the author's critical systems heuristics (CSH, a framework for reflective practice) might provide ordinary citizens with a reflective skill that could make a crucial difference, by allowing them to meet decision-makers and professional people at eye level. It might then become a meaningful part of school education, that is, nobody should leave school without having understood and practiced the idea.

A second main argument is that such a new critical competence on the part of citizens will also change contemporary notions of competent management and professionalism, and that consequently it should become a mandatory part of professional and management education as well. While Part 1 of the essay focuses on the basic ideas, Part 2 will give some hints for practicing boundary critique and offer some basic tools for it.

**Essay history** This essay originates in a talk given to the staff and doctoral students of the Lincoln School of Management at the University of Lincoln, UK, on 16 January 1997. It presented the author's research program on *Critical Systems Thinking (CST) for Citizens*. Adapting the presentation to the occasion, its subtitle was changed to "Critical systems thinking for citizens and managers." A first written version was later published in the Working

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**Note:** This and the next *Bimonthlies* once again offer an older essay of mine that so far was not available in HTML format (see the essay history in the box on the left).

The article has been considerably revised and expanded – large portions are completely new – but its topic remains the same: What can boundary critique, the core principle of my work on critical systems thinking, contribute to the revival of civil society?

Papers series of the School (Ulrich, 1998). To better reflect the research programs aim of allowing citizens and professionals to meet at eye level, its name was subsequently changed to "CST for Professionals & Citizens."

In 2015, a first online version of the working paper was made available, with some minor editorial corrections and in PDF format only (still available in the Downloads section of the author's homepage and in his *Academia.edu* site). The present *Bimonthly* edition – the third version of the article – finally comes in both HTML and PDF formats and, given that the essay is meanwhile 20 years old, in thoroughly revised form. Large portions of the essay have been rewritten and expanded, its references and partly also its terminology have been updated, and more figures and tables have been added. To maintain some reader friendliness despite increased length and detail, the essay now comes in two parts.

*Suggested citations:*

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*We cannot conceive of systems without assuming some kind of systems boundaries. If we are not interested in understanding boundary judgments, that is, in critical reflection and debate on what are, and what ought to be, the boundaries of the system in question, systems thinking makes no sense; if we are, systems thinking becomes a form of critique.*

(W. Ulrich, "Critical systems thinking for citizens," 1996b, p. 171)

**Towards a New Civil Competence** A basic idea of my research program *Critical Systems Thinking (CST) for Citizens* (see Ulrich, 1995, 1996b, 2000; now "CST for Professionals & Citizens") is that critical systems thinking as I understand it in my work on critical systems heuristics (CSH) – compare the motto cited above – may be of interest not only to professionals but also to citizens. As I am going to argue, the use of the systems idea for critical purposes has the potential to provide citizens with a new competence in citizenship, a skill that might help them to articulate their concerns in ways that are both relevant and rational.

In addition to explaining why I believe this is so, I propose to consider some implications for an adequate understanding of professional and managerial competence today. My basic thesis in this respect is that competent management (or professional work) and competent citizenship are inseparable.

When I first presented these ideas to the Faculty and research students of the Lincoln School of Management in England, in January 1997, I adjusted the

name of my research program accordingly and described it in terms of "critical systems thinking for citizens *and managers*." As description of my general methodological interest though, I continued to speak of "critical systems thinking *for professionals and citizens*," so as to include practitioners of all fields of professional practice (whether managers or researchers) as well as lay people (citizens), in short, everyone who is engaged in or affected by real-world problem solving and decision-making. I hope readers will agree at the end that aiming at such a large target group, immodest as it may appear, is perhaps not entirely inappropriate in this case.

***About systems thinking*** In the face of such big ambitions, it is advisable to quickly recover some sense of modesty. I would like to avoid a possible misunderstanding from the outset: the idea is *not* that everyone – citizens, managers, professionals, researchers, politicians – should become proficient in systems thinking (or "systemic" thinking, as it is also called). Much less do I see systems thinking as a paradigm or approach that would be applicable to everything or even furnish a kind of overall "theory of everything," as some systems theorists might certainly have you believe. Nor do I believe, as some of my colleagues in the field of "applied systems thinking" or systems methodologies appear to assume, that adopting a "systems approach" can and should produce some superior kind of rationality as compared to other frameworks of thought. Of course not. It's people, not methods, who make views and values matter. People are different, as are their preferred methods. Any method or tool has its strengths and limitations, its merits and defects. What matters is appreciating the differences. Cultivating some pluralism of theories, methods, and perspectives is always desirable.

Personally, I find a number of other theoretical frameworks just as important as systems thinking. Among them are practical philosophy (or philosophy of practice) in the tradition of Aristotle and Kant; philosophical pragmatism in the tradition of the American pragmatists (esp. Peirce, James, and Dewey); and contemporary discourse theory and discourse ethics, along with related ideas on deliberative democracy, in the tradition of critical social theory and thought (esp. Apel and Habermas). So I tend to employ systems thinking as one among several frameworks of thought (but hardly ever as a unique framework), when and inasmuch as it helps me in making ideas of interest clear. As I have come to believe, a critical systems perspective indeed has

some merits with respect to my concern here, of finding a new source of competence that citizens could share with professionals and decision-makers and which would therefore enable all of them to *coproduce* relevant knowledge and reasoning for practice.

***About promoting civil society*** The essential concern of my research program is *civil society*, not systems thinking. I understand by a civil society "a society in which the basic source of legitimacy lies with the individual citizen" (Ulrich, 2000, p. 247). Such a society will accordingly promote a multiplicity of opportunities for citizens to articulate their concerns, through basic education for all (including basic civil, social, and political education; compare, e.g., the respective educational program of Ireland, see CSPE, 2016) as well as through institutionalized forms of participation in all domains and at all levels of society.

Educational and institutional opportunities must come together: chances for participation will achieve little unless citizens know to articulate their concerns in ways that count as relevant and competent, just as such skills alone achieve little without conforming, institutionally secured chances for using them. My focus in what follows is mainly, but not exclusively on the side of skills, that is, on personal (cognitive) and interpersonal (discursive) competencies rather than on institutional settings. The question is, What can systemic thinking contribute to preparing citizens and managers for their roles in a living, civil society, and how might this contribution change our notions not only of competent citizenship but also of competent management? I would like to offer three basic propositions concerning this issue:

***Three basic propositions*** My first proposition concerns the role of *competent citizenship* for a functioning civil society. If by a civil society we understand a society in which ordinary people can effectively participate in decisions on matters of collective or public (as distinguished from purely private) concern, a basic challenge is how we can render ordinary people capable of participating actively. Contrary to what is often assumed, I propose that citizenship is not well understood if we see in it mainly a question of *civil rights*; rather, it is always also – if not in the first place – to be understood as a question of *civil competencies*. To me, democracy is a

kind of government that enables people to become competent members of a civil society.

My second proposition concerns the role of *systems thinking* in this. I suggest that systemic thinking has something important to contribute to the current revival of civil society. I believe it holds a key for giving ordinary people (managers as well as citizens) a new competence in citizenship. The key concept we need to consider in this regard is the methodological core principle of my work on critical systems heuristics (CSH), the concept of a *critical employment of boundary judgments* (first introduced in Ulrich, 1983, 1984, 1987, and 1993) or, with a convenient short designation, the principle of *boundary critique* (first suggested as a short name in Ulrich, 1995, 1996a and b, and used increasingly ever since, see, e.g., 2000; 2001, 2003; 2006a-c; 2012b; 2017a-c; Reynolds and Ulrich, 2010). The relevance of boundary critique in the present context is that it proposes a critically-reflective and argumentative skill that is easy enough for ordinary people (including ordinary professionals and decision-makers) to learn, yet at the same time is also relevant enough to make a real difference.

My third and last proposition concerns the role of *management* (and hence, of managers) in a civil society. It seems to me that the idea of a civil society, and the consequent concern for competent citizenship, have a lot to do with a proper understanding of the societal function of management. I believe that managers in future need to include the two previous propositions in their concept of good management. Competent managers, that is, will need to be competent citizens in the first place!

There is a *vision for management education* involved in these three propositions that looks very fitting indeed with a view to contemporary management challenges: to adequately prepare managers for the future, management education might well see its most important mission in *educating critically minded (and skilled) managers for a civil society*. Such a perspective would make a genuine difference to the "managerial" mindset conveyed to managers by today's management education. I believe that the idea of "critical systems thinking for citizens and managers" (or, as I designate it now, CST for professionals & citizens) has something essential to contribute to this vision, and I would like therefore to try and explain in this essay why and in what ways this may indeed be so. Let us begin with a

few reflections on each of the three propositions, before then explaining the idea of boundary critique and how it works in a bit more detail. The focus throughout will be on the importance of civil competencies for a functioning civil society.

**The Contemporary Notion of Citizenship** The contemporary notion of citizenship is dominated by the concept of civil rights. Following the English sociologist Thomas H. Marshall, who in 1950 published his seminal study on *Citizenship and Social Class*, it has become customary to associate citizenship with three basic kinds of citizen rights: civil rights strictly speaking (i.e., civil liberties such as freedom of speech and other forms of protection of the individual from the state); political rights (i.e., rights of political participation, typically by voting or by holding political office); and social and economic rights (i.e., the right to social security and welfare). Marshall's influence was such that when we speak of civil rights today, we usually mean all three kinds of citizen rights. That is to say, the incorporation of social rights into the concept of citizenship has become generally accepted, although their concrete meaning remains of course a matter of political dispute. Marshall's (1950, p. 96) personal view was that the incorporation of social rights meant to create "a universal right to real income that is not proportionate to [read: independent of] the market value of the claimant," an idea that comes surprisingly close to present-day calls for an unconditional basic income. His point was of course that without some minimal economic independence, it is not possible to exercise civil liberties and political rights of participation, with the consequence that citizenship risks remaining an empty concept. For a thorough account of Marshall's work and its importance for the development of modern citizenship theory, see Barbalet (1988).

**Contemporary challenges** In spite of the astonishingly modern aspects of Marshall's work, there are reasons to doubt whether his notion of citizenship is still sufficient today. The ongoing process of modernization has changed the meaning and relevance of classical citizen rights. The societal *process of rationalization*, as the German sociologist Max Weber (e.g., 1930, 1968, 1991) could still designate the expansion of the spheres of scientific and bureaucratic rationality to ever more areas of life, appears to undermine the

role of citizenship. So does the ongoing process of economic *globalization*. Experience shows that conventional citizen rights do not enable citizens sufficiently to control these technological, economic, and administrative developments and their repercussions upon people's daily life worlds. They tend to render people incompetent in matters that affect their daily lives. Many citizens lack the skills to see through, or even argue against, the arguments of those who have the say in the omnipresent rationalization processes that change their lives, often enough also endanger their health, kill their jobs, and degrade the natural environment. This experience makes people feel powerless. Many stop to engage themselves actively in matters of public concern; they retreat to the private sphere of work and consumption and no longer care to exercise their rights of political participation.

Another problem is that conventional citizen rights do not seem to address all the major issues that concern citizens today. Today's civil rights developed historically around major political struggles of the early days of capitalism and industrial class society, I am thinking especially of the social question. How could a capitalist society ensure a minimum of welfare and integration to the dependent working classes? While capitalism inevitably involves inequalities between social classes, citizenship involves rights that are recognized as belonging equally to all members of a society, independent of social class. Thus citizen rights were to ensure a certain redistribution of resources and chances of participation to the dependent working classes. Citizen rights became a source of social and political integration; they laid a basis for the subsequent development of the "welfare state compromise" practiced in the Western democracies after the Second World War (see, e.g., Bendix, 1964, p. 73; Barbalet, 1988, p. 83; Habermas, 1996, p. 501).

Important as these issues continue to be, they do not exhaust the universe of issues that move citizens today. As an example, we may think of the *ecological question* and, linked to it, the problem of achieving a sustainable world-wide economic and social development. Environmental hazards are no longer limited to certain social classes, they can affect everyone. Social rights may help those affected to claim protection or compensation but they do little to prevent such hazards in the first place, for they do not enable citizens to control the production and distribution of risks.

A second example is provided by the issue of *industrial democracy* or, more

generally speaking, of democracy at the workplace, an idea that is not contained in Marshall's concept of civil rights, either. Although most of us spend much of our time at the workplace, this idea has remained scarcely developed in our actual practice of democracy.

A third example is the problem of securing the *democratic control of science and technology*. This problem is gaining importance because of the growing reach of our scientific and technological means, which poses new problems of ethical and democratic legitimation (cf. Ulrich, 1994). It may suffice to mention the problems of nuclear waste disposal and of genetic engineering.

As a last and somewhat different example, another source of the loss of meaning of citizenship that comes to mind is certainly the shift of ever more decisions that affect our lives to *supranational levels of decision-making*. Examples are provided by the ongoing process of economic "globalization" and, partly prompted by it, efforts at strengthening supranational government in many regions of the world. Citizenship in Marshall's comprehensive sense has been institutionalized thus far only at the level of the nation-state, which means that citizens cannot democratically control an increasing number of decisions that are taken remote from them yet affect their lives at the national, regional, and local levels. What supranational bureaucracies and global economic players such as multinational corporations do or neglect to do affects many people, whose citizens' rights do not effectively reach beyond the national boundaries. For example, the free and easy movement of capital and of jobs across national boundaries is beyond democratic control even though it may have important effects at local, regional, and national levels.

***Institutional deficits*** This last example is different in nature from the previous examples. The core issue here is one of institutionalizing a new, *global economic world order*, one in which the range of application of citizen rights would converge better than today with the range of action of private corporations and supranational bodies of decision-making. The issue concerns more the wanting institutionalization than the substance of citizen rights. In their substance, there are so many issues which already in the "old" and present economic world order are beyond adequate democratic control of those affected; think only of the persisting socioeconomic discrepancies

between developed and underdeveloped regions of the world, or of unresolved ecological issues such as global warming, diminishing biodiversity and many others, or of the ethical questions raised by new technologies such as genetic engineering and robotization. So long as world citizenship and some kind of democratically controlled world government are not institutionalized, and this may not happen very soon, the only solution may be to regulate the freedom of the global market in such a way that it does not undermine the freedom of citizens to control matters of collective interest democratically. This means limiting "free markets" to areas and spaces for which institutionalized democratic processes can set norms of regulation. The European Union (EU) and other supranational economic unions that have been emerging in recent decades (e.g., ASEAN, MERCOSUR, NAFTA, AEC) could provide intermediate levels to this end. However, such supranational bodies tend to be remote from the citizens' reach of influence.

Taking the example of the European Union, it still lacks provisions for an adequate democratic control of the basic "Four Freedoms" of the EU Single Market (or Common Market), sometimes also referred to as its five freedoms – the free movement of goods, services (including entrepreneurial establishment), people (including labour), and capital and payments. The way in which these freedoms are interpreted and regulated through the EU's executive, legislative, and judicial bodies obviously affects the citizens of the member states quite considerably, but thus far these bodies are accountable only to the governments of their respective member states. The EU today embodies a common market and a political union but not a civil society in the sense intended here. Europe has yet to set up institutions of corresponding democratic control, among them first of all a European citizenship, a European constitution, and a European executive elected by and accountable to the people. Similar observations could be made with respect to the other economic unions and, at a global level, with respect to the United Nations. But again, this is an institutional issue of the future which is not in the centre of the present essay's concern.

***The problem of complexity*** What these different examples have in common is that the issues in question reach beyond the participatory chances of citizens even though they may be of crucial importance for the development

of our late-industrial societies. Apart from the institutional problem just mentioned, the core problem appears to be the complexity of these issues. Granting to citizens the necessary rights of participation and of democratic control is not enough to ensure effective participatory chances and influence to them. If the issues are beyond their understanding, how can they argue their concerns in a competent manner? Is an ever-increasing gap between citizen rights and the actual capability of citizens to participate inevitable?

**Developing the Idea of Civil Society** My conclusion from the preceding considerations is that a different concept of citizenship is required today, one that would give a central part to civil competencies rather than to rights only. I propose to understand citizenship as a status that is constituted by civil competencies as much as by civil rights. Only thus can the role of the citizen effectively change toward *active citizenship*, a notion that Habermas (1996, p. 497) associates with the existing Swiss democracy but which (as a Swiss citizen) I prefer to associate with the idea of civil society in general. The ideal is to create a society in which ordinary people have an effective – and equal – chance of participating actively in the making of public opinion and political decisions. The reality, unfortunately, is less ideal. For too many people, citizenship does not appear to mean much more than a number of rights (including the right of residence) that go along with a rather passive status of membership in a state.

**The rediscovery of civil society** But is such a change not illusory? Did we not just mention a number of examples that suggest a loss of meaning of the concept of citizenship, in Switzerland no less than in other countries? Paradoxically, it seems that the growing awareness and frustration of many citizens in view of their experience of incompetence and impotence is beginning to give rise to an amazing counter-movement: the notion of civil society is enjoying a new, unprecedented popularity. We are witnessing a *rediscovery of civil society* that manifests itself not only in the sociological and political literature (see, e.g., Cohen, 1983; Keane, 1988; Walzer, 1991; Seligman, 1992; Kumar, 1993; Hall, 1995; Sandel, 1996; Barber, 1998, to mention just a few early authors from a rapidly growing body of literature) but also in actual changes in society and in the ways citizens understand their role. These changes suggest to me a gradual shift of the essential "locus of

control" (the actual steering centre of societal developments) from institutions such as parliamentary democracy and governmental bureaucracy, along with scientific, professional, and industrial organizations – institutions that historically have been driving, and continue to drive, the process of rationalization – to *citizens*, including citizen groups or movements, non-governmental organizations (NGOs), the world-wide social media, and the public sphere in general. A new, increasingly global but also increasingly differentiated and decentralized kind of political culture (or perhaps, at times, subculture) appears to be emerging in many societies; a political culture in which citizens and citizen groups develop new skills of monitoring, evaluating, and influencing the activities and omissions of the "old" steering centres.

To mention just a few such competencies that come to mind, citizens everywhere are learning to make better use of the public media, including the new possibilities of information access and exchange through world-wide communication networks. They use these means to organize themselves outside the mainstream of the established political system and also to make the most of the available means of legal action and, at times, civil disobedience. They engage themselves in participative forms of inquiry and planning such as citizens' initiatives or action groups, "planning cells" and "citizen reports" (e.g., Dienel, 1989, 1991) or "citizens' juries" (e.g., Crosby et al., 1986), "hybrid fora" of scientists and citizens (e.g., Gibbons et al., 1994), stakeholder-based evaluation (e.g., Bryk, 1983), participatory action research (e.g., Fals-Borda and Rahman, 1991; Whyte, 1991; Reason, 1994) and other forms of collaborative and community-based research and engagement (e.g., the development of "crowdsourcing" initiatives). And finally, of particular interest here, they benefit of the new facilities of world-wide communication and collaboration to increase their *critical* awareness and competence vis-à-vis the rationality claims raised by vested interests or by experts and political lobbies who serve these interests.

***Political abstinence*** All this is not to deny that there also exists an opposite tendency toward increasing political abstinence (e.g., on the part of young people); but the symptoms of a deinstitutionalization and decentralization of political processes appear more significant to me. The phenomenon of political abstinence within the old political system is probably itself an

expression of the shift of the political to new political arenas, it need not necessarily mean a general loss of political interest. Citizens turn away from the institutionalized political system (which, they feel, does not give them a sufficiently competent and meaningful role) rather than from the *res publica* as such. Take, for example, the observation that when environmental issues are at stake, citizens in many societies now increasingly dare to "think for themselves," quite according to Kant's (1784) call to Enlightenment: *sapere aude!* – dare to know! Who else if not active citizens can ultimately be expected to be in charge of controlling the increasingly threatening repercussions of the rationalization process upon the social life world?

**Methodological implications** But of course, we must not rely on wishful thinking. The point of my conjectures is not a sociological prediction but rather, a methodological argument. Or, to put it differently, the issue here is not so much whether a revival of civil society along the lines I have suggested is actually taking place but rather, how we can provide citizens, no less than managers and professionals, with new and better skills for active and responsible citizenship than are available to them today. If some of the considerations I have suggested are not entirely mistaken, a sustained development of civil society will not be possible without a simultaneous development of the competencies of both professionals and citizens. This is the context in which I see a role for critical systems thinking as I understand it, that is, for *systems thinking as a form of critique* (Ulrich, 1996b, p. 171; cf. the motto cited at the outset of this essay). It is a skill that in turn will inform a well-understood concept of competent management and other kinds of professional competence, and consequently it will then also change the ways such competencies are taught, formally awarded or socially attributed, and practically exercised. Hence, before explaining the notion of "systems thinking as a form of critique," a quick look at the situation of professionals (including managers) is in order.<sup>1)</sup>

**Developing the Idea of Professionalism** In many respects, it seems to me the situation of professionals today is not so different from that of citizens. I have outlined my understanding of this situation in a previous essay (see Ulrich, 2011) and thus can be brief here, focusing on the nexus between professionalism and civil society. It seems to me that the

contemporary concept of professionalism, similarly to the concept of citizenship, has remained rather underdeveloped with a view to the reflective competencies needed for effective and responsible participation in civil society. Professional competence is still understood rather one-sidedly today in terms of expertise and status conveyed through formal training and examination, and in some fields (e.g., in the health and legal professions) also through membership in professional organizations.

Yet in a civil society, formally awarded expert status is obviously not a sufficient source of legitimation for the *consequences* that professional intervention may impose on citizens. In view of the ever-growing scope of professional intervention, professionals need new critical skills that enable them to exercise responsibility in handling these consequences, that is, for example, to explore and assess these consequences systematically and to deal in open and transparent ways with the value implications and practical effects or long-term impacts they may have for all those concerned. That is to say, professionals need critical competencies similar to those we considered above for citizens; consequently, such consequences also need to become an integral part of our contemporary concepts of professionalism and of adequate professional training.

***Professionalism and citizenship*** There exists a deep connection between the two concepts of competent citizenship and professionalism. Just as citizenship requires not only civil rights but also civil competencies (which often benefit from people's professional and everyday skills), it seems to me that well-understood professional competence requires not only expertise and the status and actual influence upon decisions that come with it but also a proper understanding of citizenship. I therefore propose that we should teach future professionals to exercise their professional competence not only in terms of expertise but equally in terms of competent citizenship. From such a perspective, only that professional will be considered a competent professional who also is a competent citizen (see Ulrich, 2000, for a fuller argument on this "critical turn" of the concept of professionalism).

But of course, strategies of promoting civil competencies in professionals and citizens must rely on an approach that is sufficiently general and basic to be accessible to a majority of ordinary people. If critical systems thinking –

systems thinking as a form of critique – is to help us in this endeavor, we must find ways to translate it into a language that ordinary people can understand and are willing to use, and which is really capable of empowering them in a new and meaningful way. The core concept that I have in mind is fundamental to my understanding of critical systems thinking, I mean the already mentioned concept of a critical employment of boundary judgments (Ulrich, 1983, pp. 225-314; 1987; 1993) or, in short, "boundary critique" (Ulrich, 1995; 1996a, b; 1998; 2000; 2001). What, then, is boundary critique, and why should it become a generic competence of ordinary citizens and professionals alike? It is time now to introduce this idea.

**Developing the Systems Idea** If we are to provide not only professionals but also citizens with the kind of new competencies we have discussed, we should face the fact that ordinary people will probably always have a disadvantage of knowledge and skills in comparison to specialists, that is, people with access to special expertise, including the decision-making bodies and vested interests that can pay for such expertise. Linked to this asymmetry of access to knowledge is often also a disadvantage of status and influence, and thus of actual influence. Because they are not usually able to argue in comparably compelling ways, citizens may be heard but (whether consciously or not) are not really taken seriously; what they have to say does not *count* as an equally competent contribution as that of the specialists and office holders. We must thus try to find a source of competence in citizenship that is available equally to people with or without access to special expertise.

**A democratic vision** Hence, rather than presupposing, or trying to achieve, ideal conditions of symmetry – of knowledge, skills, status and power – between ordinary citizens on the one hand and experts and office holders on the other hand, it may be a better idea to employ the systems idea for the purpose of dealing effectively with the usual *asymmetry* of situations. The challenge then consists in employing the systems idea as a countervailing argumentative force or compensatory competence as it were. Citizens will thus not need to be equally knowledgeable and skilled as those with access to special knowledge; instead, they will be able to demonstrate in compelling ways why such special knowledge is not sufficient to justify the claims based on it and what other claims may have equal merit. I propose that we can

accomplish such a genuinely democratic vision of a civil competence for all by introducing to citizens and professionals alike what I call the *critical kernel* of the systems idea. It should be clear though that the following account, like the entire essay, is written primarily for academic readers; its concern is methodological clarification rather than didactic elaboration.<sup>2)</sup>

***The critical kernel of the systems idea*** The critical kernel of systemic thought consists in its reminding us of two fundamental limitations of knowledge, and consequently of the quest for grounding rational practice in knowledge and reason. The first is the claim, implicit in this quest but difficult to prove in practice, that we consider all possibly relevant circumstances and concerns, that is, in the terms of Kant's unsurpassed account of this fundamental principle of reason, the relevant "totality of conditions" or, as he also puts it, the "whole series" of conditions or whole relevant "system" (1787, B379f, 444, 673, 860); the second, that in consequence we can rarely if ever be certain to know and understand enough.

Even where an issue or situation of interest is well defined, the job of considering the "whole relevant system" is by no means a trivial matter. It requires us to understand all conceivable options of viewing the situation, and thus to explore all those known or unknown, often interdependent conditions within and outside the situation that could possibly have some bearings on our understanding of it – an undertaking that finds *no natural boundary*. We encounter here the very methodological core of the idea of boundary critique: reason cannot renounce its fundamental requirement of considering everything possibly relevant, yet the actual practice of any quest for comprehensiveness is always limited and thus deficient. At the same time, however, there is no definitive, fixed boundary beyond which the quest for understanding the "whole" relevant system or totality of conditions to be considered might not reach; which means that a critical revision of assumed boundaries is always possible.<sup>3)</sup>

**Reference Systems, or the Context that Matters** In order to keep this requirement within reasonable limits, so that we may hope to achieve some certainty as to whether our claims to knowledge, understanding, and rationality do indeed consider the whole relevant system or come reasonably

close to such comprehensiveness, we would need to be able to delineate the whole system at issue in some objective, comprehensive and definitive way. But there is only one system of which we can say for certain that it represents the whole system, namely, the *universe*. Any other system we take to be relevant for assessing a claim's meaning and validity, including what we call a "system" in everyday speech (meaning some specific system of primary interest or concern as distinguished from others), needs to be distinguished from the universe by means of *selections*, whether they are conscious or unconscious, our own choice or that of others.

In critical systems thinking, a precise way of conceiving of these selections is in terms of "reference systems"<sup>4</sup>) and of related "boundary judgments":

- a *reference system* is a whole of circumstances or conditions selected from the (assumed) universe that together make up a context for assessing the meaning and validity of a specific claim; whereas
- *boundary judgments* are the acts of selection by which we delimit a specific reference system from other conceivable reference systems and/or from the universe (as an ultimate reference system for reflecting on the selectivity of all other reference systems, an idea that in practice becomes important especially in moral reasoning).

Combining these two definitions, we can define a reference system in its simplest operational definition as follows:

*Definition:* a **reference system** is a set of boundary judgments that together inform a claim.

***The context that matters*** In somewhat less precise terms, with the advantage of being closer to everyday language yet without losing pragmatic relevance, we can understand the idea of a reference system as referring to the "situation" or "context" that is taken to *matter* for determining relevant facts (circumstances) and values (concerns) and conforming paths of rational action. In other words, the reference system to which a proposition or claim refers defines its *context of concern*. Accordingly, my preferred "pragmatic" definition is this:

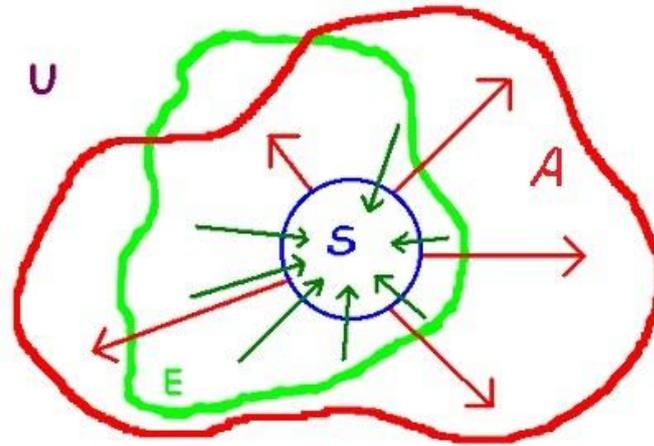
A reference system is the *context that matters* when it comes to assessing the merits and defects of a proposition. (Ulrich 2000, p. 251)

Likewise, we can understand boundary judgments as *contextual judgments* that delimit a specific situation or context of concern from its physical and social environment; that is, they define the *borders of concern*.

***Four major kinds of reference systems (or contexts)*** The most basic and best-known reference system of systemic thought, apart from the notion of a system of primary interest itself, is the notion of a system's environment. For all practical purposes, there is *no system without environment*. In fact, the system/environment distinction is constitutive of system thinking inasmuch as the two reference systems are defined by a shared boundary: by definition, any part or aspect of the world (the universe) is either part of the system of interest or of its environment. We may well try to define a system of concern as comprehensively as possible; but ultimately, a clear definition requires delimiting it from its environment. Accordingly, systems thinking is not the same as holistic thinking. Holistic thinking stands for an ideal in which the environment would become an empty class; systems thinking stands for a careful and transparent handling of what is *treated* as environment. It follows that in applied systems thinking, as in all applied thought, contextual judgment is always in play. What we mean by a "system" is a matter of selection, whether we are aware of the selection criteria or not. This is why the concept of *boundary judgments* (Ulrich, 1983, p. 225ff) is so fundamental to any critical employment of the systems idea. It helps us – and reminds us – to understand the inevitable *selectivity* of our claims.

However, the system/environment distinction, constitutive as it is for systemic thought, is not sufficient with a view to the end of appreciating selectivity. It cannot adequately ground a critically tenable concept of systemic rationality, by which I mean a type of argumentation that lays open the reference systems on which its rationality depends. I take it that critically reflective systems thinking (CST) cannot do without a systematic attempt to clarify its underlying concept of rationality, in general as well as in each specific application – *in general*, that is, by clarifying the types of reference systems and forms of boundary judgments in terms of which it is to examine and qualify all its claims; *in each application*, by systematically unfolding the selectivity of specific claims in terms of their underpinning boundary judgments. Proper ways of doing that, and of thus buttressing situational claims to relevant knowledge, rational action, or resulting improvement,

reach beyond the S/E distinction. **Fig. 1** depicts three fundamental boundary issues and four resulting types of reference systems that play a fundamental role in rational practice; Fig. 2 will subsequently introduce a fourth, logically subordinated boundary issue.



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**Fig. 1: Three basic boundary issues in critically systemic thought**

S = system (or situation) of primary interest; E = relevant environment (or decision-environment); A = context of application (or context of responsible action); U = universe (or total conceivable universe of discourse)

Boundary judgments define borders of concern. Any definition of S leads to the two additional boundary issues of demarcating from U both E and A. The two issues can be distinguished as follows: if the issue is whether some part of U influences S in a relevant way ( $U \rightarrow S$ ), then we are concerned with E; if however the issue is whether some part of U is influenced by S in a relevant way ( $S \rightarrow U$ ), then we are concerned with A.

(Source: Ulrich, 1998, p. 6)

To identify the kind of reference systems required for critically reflective practice, we first have to remember that no practicable approach can ever claim to be comprehensive (or "holistic") in its outlook and rationality. No-one and no kind of approach or method can do justice to the whole world. Applied systems thinking has no advantage in this respect. This means it is not a particularly useful idea to define the environment of a system as the latter's logical complement within the universe. It's not that the definition would be wrong, only that it is not good enough for critical purposes. The pitfall of an illusory claim to some kind of superior (because supposedly holistic) rationality that the system/environment distinction helps to avoid would then merely have been shifted from the ways we think and talk about "systems" to our handling of the "environment." As was previously the case with an unqualified notion of "systems" thinking, our references to the

environment would once again risk succumbing to an illusion of comprehensive knowledge and understanding. But as already said, systems thinking cannot redeem such a claim, no more than any other conceivable approach (a danger of which for instance the environmental or "green" movement does not always appear to be sufficiently aware, cf. Ulrich, 1993).

***Relevant vs. irrelevant environment*** It follows that in careful systems thinking we need to develop the basic system/environment distinction further. On the one hand, there is a need to distinguish the environment that is effectively taken into account (i.e., the considered environment) from the remaining, unconsidered environment, be it that the latter is considered less important or simply is beyond current knowledge and understanding. To put it differently, we should always be clear about what we treat as *relevant environment* and what not – "relevant" or "irrelevant," that is, *to S*. On the other hand, there is a need to recognize that the system/environment distinction, unlike what conventional systems thinking appears to assume, does not exhaust the fundamental boundary issues we need to consider in the quest for rational practice. There is a "missing element," a fourth basic kind of reference system to which I refer as the *context of application*. Let us, then, define and explain these two additional types of reference systems.

*Definition:* A part of the universe is **relevant environment** (E) if it does not belong to the system of concern (S) but nevertheless influences the latter and/or coproduces its measure of improvement; it is **irrelevant environment** (or simply a part of the *universe*, U) if it does not influence the system or if the way in which it influences the system is of no concern, that is, it does not coproduce the system's measure of improvement.

In practice, this definition is operationalized by the question: What real-world conditions outside S are (or are to be) treated as relevant environment and thus should receive full attention in defining and justifying relevant knowledge, rational action, and resulting improvement; and what other conditions may (or need to) be treated as irrelevant environment, that is, as not meriting such attention?

Critical systems thinking begins when we recognize how limited our ways of handling this question tend to be. There are basically two such limitations.

First, we cannot possibly treat the entire universe as relevant environment; so we should always examine and lay open what aspects of the universe we are treating as *irrelevant* environment or, more precisely, *as if* they were irrelevant environment. Second, there are limits to the ways we can do justice even to what we recognize as *relevant* environment; so we should examine and lay open what kinds of concerns or of rationality we associate with the relevant environment, *as if* they amounted to all the relevant concerns or rationality aspects outside S there are.

Regarding the first limitation, note that the systems-theoretical meaning of "relevant environment" differs from its everyday ecological meaning: in systems thinking, the reference system for identifying relevance or irrelevance is the system of primary concern rather than the planetary ecosystem or even the universe. More precisely, E stands for a system's (or its designer's or manager's) *decision-environment*, that is, the totality of circumstances or conditions on which a system's current state and further development depend but which are not under the system's or its decision-maker's control (i.e., not part of S). This is why above we defined E as that part of the universe which is not part of the system S but *coproduces* its measure of success or of improvement. Conversely, that part of the universe which is not recognized to matter for S, in the sense of *not* coproducing its measure of success, will be likely to be seen and treated as irrelevant environment.

Regarding the second limitation, it arises as a consequence of the first: not only *what* we consider as relevant environment but also *how* we deal with it tends to be conditioned by our "systems perspective," that is, by the limited context of concern that we associate with the system of primary interest. Critically speaking, what is not recognized to be in the latter's interest – that is, any interest that is not *grounded in references to S* – will not receive the same kind of *systematic* attention and care, even if lip service is paid to it and although it may be recognized to be important from an alternative perspective that is not focused on S (say, an ecological perspective concerned with some different region of the planetary ecosystem, or an economic perspective concerned with distributive effects outside S). So long as S is the main reference system for establishing rationality and measuring improvement, such issues will not be part of the systemic rationality at work

and will instead be relegated to a less important, if not irrelevant, status. One might of course shift perspective and treat such an alternative concern as the system of primary interest, but then one has created a new environment that once again can only selectively be treated as relevant environment – the logic remains the same. We may speak of a dominating "managerial" or "strategic" logic of a thus-conceived *systems rationality* (i.e., a rationality perspective grounded in references to S): in this logic, the system's environment will really be "relevant" and thus receive all conceivable attention *inasmuch*, and only inasmuch, as doing so serves the interests associated with the system of primary concern. We must conclude that refining the S/E distinction with the additional, subordinated boundary issue of delimiting the relevant from the irrelevant environment (E/U), although necessary from a critical perspective, is not sufficient for grounding a critically-reflective approach to rational practice.

***The context of application*** In my specific approach to critical systems thinking, critical systems heuristics (CSH), a third type of basic boundary issue is therefore important; I mean the distinction between the system of concern (S, as delimited from E) and what I call the context of application (A, as delimited from U).

***Definition:*** The **context of application** (A) refers to that part of the universe (U) which is influenced or "affected" by the system (S) but which, unlike the relevant environment (E), is not necessarily influencing or "affecting" the system; that is, the success of S need not depend on considering A.

In practice, this definition is operationalized by the question: Where do the *consequences of systemic rationality* arise, and how does the thus identified context of application (A/U) differ from that of justification (S/E)?

As this core question makes clear, the context of application introduces a *critically-normative perspective* that ultimately is grounded in moral principles of fairness and responsibility, and in democratic principles of participation and legitimacy. That is, it asks where responsibility and legitimacy lie in dealing with all those affected or concerned by what counts as rational practice. The symbol "A" for the context of application – the real-world context to which the normative implications and distributive

consequences of systemic rationality "apply" – can therefore also be understood to designate the context that matters for responsible and legitimate action, in short, the *context of responsible action*.

With respect to this critically-normative issue, terminological accuracy is key. The now fashionable reference to "the stakeholders" is not sufficiently accurate to make sure the essential questions are addressed. The following definition aims to define the issue with due accuracy:

*Definition:* The context of application (A) includes two overlapping categories of stakeholders (and of related stakes and stakeholding issues) that are in need of systematic distinction, **those involved** and **those affected**, whereby the crucial boundary is that between those affected *and involved* on the one hand and those affected *but not involved* on the other hand.

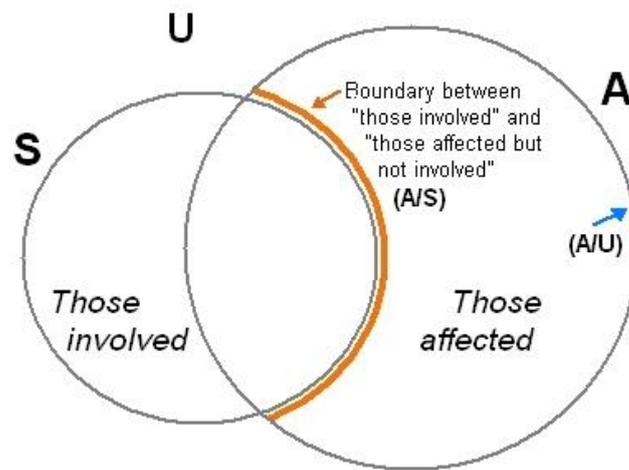
Being involved: having a say or being able to voice ones concerns

Stakeholders: individuals or groups concerned

Stakes: the concerns of stakeholders

Stakeholding issues: economic trade-offs and ethical conflicts between competing goods and values, and related issues of assessment and legitimation

In practice, the main distinction is between those stakeholders who are affected *and* involved, that is, have a say in or about the management of S and E, and those affected who have no such influence. In traditional terms, this second category of stakeholders refers to *third parties*. Third parties have to live with the (so-called) *external effects* of systems rationality – "external," that is, from a rationality perspective that is grounded in S only. Accordingly important for proper stakeholder analysis is boundary critique with respect to this particular aspect of the context of application: which stakeholders among all those effectively or potentially affected have adequate influence on the process of will-formation, and which others don't? The crucial boundary issue is the one marked in **Fig. 2** with a bold boundary line (in orange color), between stakeholders who are involved and those who are not.



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**Fig. 2: Those involved vs. those affected but not involved, and how they relate to the two reference systems (S) and (A)**

S = system (or situation) of primary interest, A = context of application, U = universe. While A as delimited from U (A/U) includes all those affected and thus provides the basic reference system for responsible action, the crucial boundary issue is often how those affected *but not involved* (A/S) are treated.

(Source: adapted from Ulrich, 1983, p. 248)

When it comes to dealing systematically with the context of application, we thus have two overlapping boundary issues that should never be confused or blurred: its *external* delimitation from the universe (A/U) and its *internal* differentiation into the two kinds of stakeholder situations (A/S). In the short notation I propose, the slash stands for a logical disjunction (Latin for "separation"), which in German logic is also – more accurately and closer to everyday language – called *exclusion* (read: "A or S but not both"); compare expression 3.6 in Bochenski (1959, p. 12) and in Bochenski and Menne (1965, p. 28). In my specific usage here, the first letter stands for a considered reference system and the second for an excluded one; hence A/S reads: "A excluding S" or "A as delimited from S," or logically less sharp but perhaps closer to everyday speech, "A rather than S."

The first of these two boundary issues (A/U) – the external delimitation of A – leads in its ultimate consequence to the *moral question* contained in Kant's principle of moral universalization (better known as the categorical imperative): which stakeholders are (or have to be) excluded from being recognized and treated as belonging to those affected, and how might I/we (as involved parties) experience and justify this circumstance if we were to find ourselves in their situation? The issue, in short, is *moral universalization* – testing a claim for its moral universalizability.

The second issue (A/S) – the internal delimitation of A – leads in its ultimate consequence to the *democratic question* contained in the vision of a participatory civil society: which stakeholders are to be involved and what kind of participation or influence are they to be given? The issue, in short, is *participation* – examining a claim for its sources of legitimacy.

In addition, stakeholders and related concerns may also be found to be part of the relevant environment E in the sense that from a rationality perspective grounded in S, they merit special attention due to their actual or potential influence on S. In the logic of the boundary issues involved, the possibility of A's overlapping with E is captured through the combination of the two basic delimitations of A from S (A/S) and S from E (S/E). The combination of these two boundary judgments is logically equivalent to "A excluding S and E" (A/[S/E]); a proper empirical identification of the stakeholder group of those affected but with no effective control or influence upon S, is thus ensured.<sup>5)</sup> We thus arrive, once again, at the three basic boundary issues illustrated in the previous Fig. 1, the tasks of delimiting from the total universe of conceivably relevant circumstances and conditions U the three selective reference systems S, E, and A, which in practice amounts to the four boundary issues S/E, E/U, A/U and A/S. Neither of these boundary issues appears to really have been treated systematically and with the necessary terminological accuracy in the so-called theory of stakeholder management; yet all are crucial for assessing managerial claims to relevant knowledge, rational action, and resulting improvement.<sup>6)</sup>

Fig. 2 makes it obvious just how insufficient the lip service paid routinely to "the stakeholders" is in view of the divergent rationality perspectives at issue. Instead of distinguishing clearly between the different reference systems involved and systematically addressing the different rationalities they may entail, the literature regularly glosses over such distinctions, almost as if its interest were more in concealing than examining the rationality conflicts in question.

To avoid such glossing over the issues and resulting situations of ambiguity or doubt as they regularly arise when decision-makers and professionals refer to their "caring about stakeholders" – doubts, in particular, as to what role is actually given to specific groups of stakeholders and what a proper handling of their concerns would mean, and ultimately, what rationality perspectives

are in play – some basic terminological conventions may be advisable:

- (1) References to "*stakeholders*" in general – just like references to the "context of application" in general – should basically be understood to include the two basic groups and thus to require an accordingly differentiated handling.
- (2) References to "*the involved*" may always – without further ado – be understood to include stakeholders who are both affected *and* involved. And
- (3) References to "*the affected*" – so long as there is no definitive evidence that all of them are also involved – should be understood to require a systematic focus on stakeholders who are affected but *not* involved.

Where clarity of reference systems is essential – and in stakeholder management it should indeed be considered essential – it may often be advisable to explicitly refer to the group of "those affected but not involved" rather than merely to "those affected" or to "the stakeholders," or alternatively to introduce the three suggested definitions in the first place before then employing the shorter terms.

**The universe** As the last reference system to be defined, we have the residual reference system U:

*Definition:* The **universe** (U) stands for the entire conceivable universe of discourse, that is, the totality of conditions and consequences of rational practice that might be relevant for understanding a specific situation or issue of interest but which are not usually known completely and, inasmuch as they are known, cannot as a rule be fully included and examined in S, E, and A.

The universe U is a residual reference system that includes all those (possibly unknown) conditions and consequences that have not been included in the considered reference systems S, E, and A. It is the total *conceivable* universe of discourse as distinguished from the actual universe of discourse that is made up of S, E, and A. In other words, U comprises the sum-total of all conceivable options for enlarging the actual universe of discourse – as well as for revising the reference systems S, E, and A – and as such cannot be delimited in any definite way. Like S, E, and A, U serves a mainly *critical purpose*, that is, their delimitation must in principle always remain a revisable selection. But unlike S, E, and A, which at some point will all need to be delimited pragmatically so as to allow us to pass from deliberation to action, U will always remain an "open" context that offers a

basically infinite number of further options for delimiting any of the other reference systems.

*As distinguished from E*, U can be understood to stand for the (supposedly) "irrelevant" environment, that is, for that part of the environment which at any stage of reflection or deliberation is *not* considered to matter for S. U is a residual reference system from which so far unconsidered aspects of the environment may be drawn into the light of the "relevant" environment E, as it were. The fact that the universe cannot ultimately be bounded compels us to face the inevitable *lack of guarantee* with respect to environmental conditions and resources. No kind of systems rationality (as grounded in references to S/E and E/U) can fully control all the external conditions on which it depends; all systems rationality therefore depends on an *assumption* of sufficient control over these conditions. In short, thinking about U and the ways it may not be adequately considered in E furnishes a conceptual touchstone for reflection on the inevitable limits of S's environmental control, and thus for qualifying (i.e., limiting) all related claims accordingly.

*As distinguished from A*, U (as already hinted above) can be understood to stand for moral questioning and delimitation of claims. Perhaps the most consequent application of this concept is to be found in what Kant (1793, B157f; cf. Ulrich, 2009a, p. 10) called "enlarged thought," that is, in considering the presuppositions and consequences of a proposed action or moral judgment from the perspective of a progressively larger community of responsible agents oriented towards mutual respect, fairness, and cooperation. It is a rational perspective that ultimately leads to the ideal of a *global moral community*, to which Kant (1786, B74f, 83f, 127) famously referred as a "kingdom of ends." This is what his principle of moral universalization means; it is a critical test rather than a method of justification. It requires us to reflect on the ways our reference systems for responsible action (A/U) are bound (sic!) to imply a *lack of moral justification*. Again like in the case of the other reference systems, but even more decidedly so, U in this moral sense then serves a mainly critical purpose. It is usefully understood as a mere limiting concept, an idea towards which we can direct our thought and efforts but which we will never quite realize. Although no kind of practical knowledge and action can do justice to this ultimate touchstone of normative arguability, there is no definitive

boundary for approximating it either. It thus provides orientation and critical distance at once. In short, thinking about U and the ways it may not be adequately considered in A furnishes a touchstone for reflecting on the inevitable limits of moral justification of our claims, and thus for qualifying (i.e., limiting) them accordingly.

**Short summary** Four basic reference systems and corresponding boundary issues will need to inform the practice of boundary critique to be considered in Part 2 of this essay:

- the *system* (or situation) of *primary interest* (or primary concern) S;
- the *relevant environment* (or decision-environment) E;
- the *context of application* (or of responsible action) A; and
- the *universe* (or universe of discourse) U.

We can conveniently refer to this framework as the *S-E-A-U formula* (or scheme) of boundary critique. The corresponding, crucial boundary issues are these:

- S/E
- E/U
- A/U
- A/S

Independent of any specific operationalization of boundary critique as we will consider it in Part 2, the S-E-A-U scheme can serve as a tool for reflective practice. Applied to specific situations, it can help us think about the selectivity of problem definitions and solution proposals. It allows us to see claims to relevant knowledge, rational action, and resulting improvement in the light of the reference systems that inform them – the "contexts that matter" when it comes to assessing their defects and merits.

The normative content of such reflection is left to the user, as the scheme (included the test of moral universalizability associated with U) does not predefine any particular world view of its own but rather encourages the users to become aware of their or other people's normative assumptions. Conforming to the aim of identifying and unfolding selectivity, the scheme's proper use is for *value clarification* – along with reflection upon the *rationalities at work* – rather than imposing any predefined value orientation or even introducing some hidden agenda. Accordingly, the considerations

inspired by the scheme and used in this essay for illustrating its use and relevance, have been grounded explicitly (as it should be) in the author's personal vision of professional and managerial competence, a vision that connects such competence with a new concept of "competent citizenship" and a corresponding development of civil society. The result would be a new type of reflective practice, aimed at systematically examining the selectivity of claims, in which citizens and professionals could meet at eye level.

Having thus "enlarged" our horizon of reflective practice, we are now prepared to turn to the more immediately practical question of "how to" implement and guide such reflection. Part 2 will to this end propose a selection of basic tools for boundary critique drawn from my work on critical systems heuristics (CSH). Once readers have captured the spirit of this type of reflection, they should then also be prepared to develop more such tools specifically adapted to their field of practice.

I would like to conclude this first part with a few reflections it prompts concerning the impoverished state of present-day "systems rationality."

***Discussion: against an impoverished systems rationality*** Our epoch has certainly come a long way since Kant (1787) introduced the systems idea as a core concept of his critical philosophy of reason. I would argue that his ideas on critique and reason are as important and powerful today as then; but as far as the systems idea is concerned, I fear the way has led us downhill. Modern – by now conventional – systems theory is only a shadow of what Kant intended with his critique of reason. It is now a placeholder of what is normal rather than a critical instance of what might be the norm, that is, a guide to critically-normative reflection and deliberation on the meaning of good and rational practice. It has largely lost sight of the ethical and ultimately moral dimension of *practical reason* that for Kant was still a systematic and indeed primary part of applied reason; a dimension of reason that could lead us beyond the narrow limitations of empirical knowledge and theoretical-instrumental reason. As measured by Kant's richer, two-dimensional conception of reason, systems rationality has indeed become a strikingly impoverished concept. It now stands for a one-dimensional rationality in which the functional or instrumental triumphs over the ethical and moral.

The present essay differs a bit from the ways in which I have more often explained the need for bringing back in to our contemporary notions of rationality and competence the "other," critically-normative side of reason, for example, by referring to Kant's (1788) concept of practical reason and moral philosophy or to Max Weber's (1968) ideal types of rational action, or to Habermas' (1984-87) concept of communicative rationality or the ideas of other authors that have strongly influenced me (e.g., Aristotle, Peirce, James, Dewey, and Churchman), or to some combination of their ideas (compare, e.g., Ulrich, 1988; 2006a; 2009a, b; 2010a, b; 2012a; and 2013). The visions I find in these outstanding guides are still present and alive in my thinking, but methodologically speaking, my present focus is on analyzing the *divergent rationalities* at work in human practice in terms of the reference systems to which they refer, whether explicitly or implicitly.

I have introduced to this end four reference systems that are fundamental to my understanding of boundary critique in critical systems heuristics (CSH), summed up conveniently in the S-E-A-U formula. Applying this framework to a critique of conventional systems thinking reveals a striking deficit in the contemporary concept of systems rationality: it is grounded in references to S and E only, *but not* also to A and U. This explains why a *critical* (or critically-normative) stakeholder perspective, as proper reference to A would require it, is not a systematic part of systems rationality today. To be sure, *ad hoc* references to A are always possible and will be considered by people of good will; but such references will remain voluntary add-ons rather than being understood as a *systematic*, that is, intrinsic and mandatory part of rational practice. Accordingly, it should not surprise us that the concerns of those affected but not involved are so rarely taken into account as an *integral* aspect of all critically tenable claims to relevant knowledge, rationality, and improvement. They may be considered more or less seriously or superficially but ultimately, when it comes to resolving the hard trade-offs between competing ends or measures of improvement, along with corresponding value conflicts and clashing rationalities, they do not really *count* in a thus-conceived view of accountability.

Likewise, a universalizing, critically-moral perspective as proper reference to U might be understood to require it, is not a systematic part of this prevalent systems rationality. But without such a perspective, it is difficult indeed to

deal with the moral core of both ethical conflicts and economic trade-offs as they face us in the quest for rational practice. This explains why systems thinking has found it difficult in the past to come to terms with the normative content of even the most "rational" practice and to develop tools for a transparent, critically-normative handling of selectivity and boundary judgments. In Part 2, as announced, we will try and see how boundary critique can contribute to this need.

*End of Part 1/2, to be continued with Part 2/2 >>*

## Notes

- 1) For the sake of simplicity, my subsequent references to professionals and professional competence will include managers and managerial competence. [\[BACK\]](#)
- 2) It is my conviction that proper simplification and didactic guidelines must come at the end, not at the beginning, of methodological clarification. Moreover I have no doubts that plenty of people are better prepared than I am to take on the didactic task. As a third consideration, some of the didactic translation required will need to be field-specific, whereby "field" may stand for all contexts of application ranging from basic citizenship education to highly specialized fields of professional practice. The primary aim I have set myself is therefore to help develop the still largely missing, or in any case deficient, philosophical basis for critically-reflective practice of both competent citizenship and applied science and expertise, and for translating this basis into practicable principles and tools. The former efforts focus on the idea of a philosophy of "critical pragmatism" (cf., e.g., Ulrich, 2006a-d, 2007a-c); the latter on my work: on "critical systems heuristics" (CSH).

Such a grounding of practice must be solid in the sense that it should lend itself to being understood and used by a majority of ordinary professionals and citizens, yet does justice to the complex and conflictual nature of real-world situations. Accessibility to many people must not go at the expense of critical relevance. Some new ideas are needed to this end, ideas that lead us beyond contemporary notions of applied science and expertise on the one hand, and of reflective practice on the other hand, both of which are seriously deficient as I see it (cf. Ulrich, 2008).

Such ideas will almost inevitably look more complex at first than older ones. That which is unfamiliar and moreover questions common views and habits of thought often looks abstract and difficult or even impractical at first. But if it is solidly grounded and practically relevant, chances are it will ultimately become as familiar as the older ideas and can then again be captured in terms that everybody understands and which may even look obvious to many people. I believe that the core idea of my work on CSH, the principle of "boundary critique," is such an idea. [\[BACK\]](#)

- 3) Interested readers will find a thorough-going account of Kant's general principle of reason (the principle just explained) and its importance for the systems idea and, more specifically, for the "critical turn" that I associate with it of our contemporary concepts of rationality and competence, in *Critical Heuristics* (Ulrich, 1983), the basic text of CSH that is dedicated to this methodological core issue of the development of "critical" systems thinking. Be aware that the book presents long and demanding reading, as it addresses readers that are willing to go to the root and expose themselves to essential – and therefore difficult, but also deeply relevant and helpful – philosophical questions. (Its language and style of writing though is for the so-called "general intelligent reader" rather than just for philosophical specialists.) Lest readers new to CSH get lost in their search for the fundamental connection between Kant's concept of critical reason and the idea of critical systems thinking, I recommend to start with the section on "Kant's Concept of Reason and the Systems Idea" (pp. 217-230). [\[BACK\]](#)

- 4) Strictly speaking, in critical system thinking we should always speak of *reference systems* rather than just of "systems"; for what we mean are objects of thought and observation that we construct ourselves. Systems are conceptual *constructs* that allow us to make sense of the world, they are not the world itself. Careful systems thinking should never reify or hypostatize its own systems constructs, that is, take them to exist out there in the real world

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independently.

However, once we have got the point, it would be rather awkward to constantly speak of "reference systems," in academic or professional writing no less than in everyday talk. It will be quite sufficient instead to speak of the "relevant context" (= a context taken to be relevant, not necessarily the only or most relevant one), or of a situation of interest (to whom?), an issue of concern (what concern?), a universe of discourse (as distinguished from other conceivable ones), and so on. On the distinction between "system" and "situation" or similar terms, compare Ulrich and Reynolds, 2010, p. 251f.

Especially in texts or discourses that address not only academics but also or mainly ordinary citizens and professionals (and many of my writings do), I therefore tend to employ the concept of "reference system" sparingly, although it is always present in my understanding of critical systems thinking and I do use it explicitly at times when it is necessary to make this understanding clear, as in the remainder of the present section of this essay. The price to pay for such added precision, to be sure, is a more academic and thus less everyday kind of language that risks not being simple and concrete enough for ordinary citizens. The point is similar to the observation in note 2) above: ensuring careful understanding of relevant ideas is required precisely with a view to later being able to be as concise and clear as possible. Analyzing the complexity to be mastered in detail must come before didactic simplification. [\[BACK\]](#)

- 5) Readers may wonder whether there might be some further reaching logical relationship between A and E similarly to that between S and E. Apart from the mentioned, implicit exclusion of the relevant environment E in the delimitation of A from S (A/S), the answer is no. We face an entirely empirical question. The deeper reason for this circumstance can be found in Kant's *Critique of Pure Reason* and more precisely, in his earlier mentioned definition of the systems idea in connection with the fundamental principle of reason, according to which reason always has to search for the "whole series (or totality) of conditions" that explain an issue under consideration (cf. note 3). As distinguished from practical claims justified by reference to S (and thus, implicitly, to S/E), A shifts the perspective from considering the relevant totality of *conditions* to considering the relevant totality of *effects* or, as Kant would put it, from the *side of the conditions* to the *side of the conditioned*. A thus brings in a *pragmatic* perspective that fundamentally questions the epistemological distinction (of logical-positivist origin) between a "context of justification" (grounded in S/E) and a "context of application" (grounded in A/U in combination with A/S), whereby the latter context is supposedly irrelevant for scientific justification. In an epoch of global repercussions of scientifically informed human practice, we can no longer treat the context of (actual or conceivable) application as irrelevant for sufficient justification, as little as we can safely assume in advance (as this distinction does) that some piece of inquiry (so-called "basic science") will never find any kind of real-world application.

Pragmatically speaking, it is in any case clear that A is no less important than S and E as a reference system for assessing the merits and defects of a proposition. In practice, A and E may overlap in complex and changing ways that cannot be defined (or predicted) on purely logical grounds. It is conceivable but can never be asserted in advance that the overlapping of A and E is an empty class. Similarly, full congruence of A and E is possible in theory but hardly ever occurs in practice, as that would amount to an ideal situation in which no-one and no concern is affected that has no simultaneous influence upon S. From a pragmatic perspective, then, the relationship between A and E is entirely an empirical question. [\[BACK\]](#)

- 6) The way "stakeholder management" is dealt with in the strategic management literature (the seminal text is Freeman, 1984) provides a major example for the urgency of coming to terms with the deficits and repercussions of contemporary managerialism and for the relevance of boundary critique in this regard. I plan to discuss this example a bit further, along with another example of the intrinsic deficits of conventional systems thinking, in a subsequent essay that will focus on the different rationalities of claims grounded in the reference systems (S), (E), and (A). [\[BACK\]](#)

## References

- Aristotle (1984). *Categories*. In *The Complete Works of Aristotle, The Revised Oxford Translation, Vol. 1*, ed. by J. Barnes, Princeton, NJ: Princeton University Press, pp. 3-24.
- Barbalet, J.M. (1988). *Citizenship: Rights, Struggle and Class Inequality*. Milton Keynes, UK: Open University Press.

- Barber, B.R. (1998). *A Place for Us: How to Make Society Civil and Democracy Strong*. New York: Hill and Wang.
- Bendix, R. (1964). Transformation of Western European societies since the eighteenth century. In R. Bendix, *Nation-Building and Citizenship: Studies of Our Changing Social Order*, New York; Wiley. Enlarged, Edition, Berkeley, CA: University of California Press, 1977. Republished London: Taylor & Francis/ Transaction Publishers, 1996, and Abingdon, UK: Taylor & Francis/ Routledge, 2017, pp. 66-174.
- Bochenski, I.M., and Menne, A. (1965). *Grundriss der Logistik*. 3rd edn. Paderborn, Germany: Ferdinand Schöningh (French orig. 1949, German 1954, Engl. 1959).
- Bochenski, J.M. (1959). *A Precipis of Mathematical Logic*. Dordrecht, The Netherlands: D. Reidel.
- Bryk, A. (ed.) (1983). *Stakeholder-Based Evaluation: New Directions for Program Evaluation*. San Francisco: Jossey-Bass.
- Cohen, J. (1983). *Class and Civil Society: The Limits of Marxian Critical Theory*. Amherst, MA: University of Massachusetts Press.
- Crosby, N., Kelly, J.M., Schaefer, P. (1986). Citizens panels: a new approach to citizen participation. *Public Administration Review*, 46, No. 2, pp. 170-178.
- CSPE (2016). Civil, social and political education. *Wikipedia* entry (stub) about the Civic, Social and Political Education (CSPE) program, a compulsory subject of secondary education in Ireland, last updated 8 Nov 2016 (orig. 5 Oct 2008).  
[HTML] [https://en.wikipedia.org/wiki/Civic,\\_Social\\_and\\_Political\\_Education](https://en.wikipedia.org/wiki/Civic,_Social_and_Political_Education)
- Dienel, P.C. (1989). Contributing to social decision methodology: citizen reports on technological projects. In Ch. Vlek and G. Cvetkovich, eds., *Social Decision Methodology for Technological Projects*, Dordrecht, Netherlands: Kluwer, pp. 133-151.
- Dienel, P.C. (1991). *Die Planungszelle: Eine Alternative zur Establishment-Demokratie*. Opladen, Germany: Westdeutscher Verlag (orig. 1977).
- Fals-Borda, O., and Rahman, M.A. (eds.) (1991). *Action and Knowledge: Breaking the Monopoly with Participative Action Research*. New York: Apex Press, and London: Intermediate Technology Publications.
- Freeman, R.E. (1984). *Strategic Management: A Stakeholder Approach*. New York: Cambridge University Press.
- Gibbons, M., Limoges, C., Nowotny, H., Schwartzman, S., Scott, P., and Trow, M. (1994). *The New Production of Knowledge: The Dynamics of Science and Research in Contemporary Societies*. London: Sage.
- Habermas, J. (1984-87). *The Theory of Communicative Action*. 2 vols. (Vol. 1, 1984; Vol. 2, 1987). Boston, MA: Beacon Press, and Cambridge, UK: Polity.
- Habermas, J. (1996). Citizenship and national identity. Appendix II in J. Habermas, *Between Facts and Norms*, Cambridge, UK: Polity Press, pp. 491-515 (orig. publ. as a monograph by Erker Verlag, St. Gallen, Switzerland, 1991).
- Hall, J.A. (ed.) (1995). *Civil Society: Theory, History, Comparison*. Cambridge, UK: Polity Press.
- Kant, I. (1784). What is enlightenment? In L.W. Beck (ed.), *Kant's Critique of Practical Reason and Other Writings in Moral Philosophy*, Chicago, IL: Chicago University Press, 1949, pp. 286-292 (German orig.: Beantwortung der Frage: Was ist Aufklärung? *Berlinische Monatszeitschrift*, VI, December 1784, pp. 481-494).
- Kant, I. (1786). *Groundwork of the Metaphysic of Morals*. 2nd edn. [B] (1st edn. [A] 1785). Transl. by H.J. Paton. New York: Harper Torchbooks, 1964.
- Kant, I. (1787). *Critique of Pure Reason*. 2nd edn. [B]. Transl. by N.K. Smith. New York: St. Martin's Press, 1965 (orig. Macmillan, New York, 1929).
- Kant, I. (1788). *Critique of Practical Reason [and Other Writings in Moral Philosophy]*. Transl. by L.W. Beck. Chicago, IL: University of Chicago Press, 1949.
- Kant, I. (1793). *Critique of Judgment*. 2nd edn. [B] (1st ed. [A] 1790). Transl. by T.H. Bernard. New York: Hafner, 1951.
- Keane, J. (ed.) (1988). *Civil Society and the State: New European Perspectives*. London: Verso.
- Kumar, K. (1993). Civil society: an inquiry into the usefulness of a historical term. *British Journal of Sociology*, 44, No.3, pp. 375-395.

- Marshall, T.H. (1950). *Citizenship and Social Class and Other Essays*. Cambridge, UK: Cambridge University Press.
- Pirsig, R.M. (1974). *Zen or the Art of Motorcycle Maintenance*. New York: Harper Collins.
- Reason, P. (1994). *Participation in Human Inquiry*. Lognon: Sage.
- Sandel, M.J. (1996). *Democracy's Discontent: America in Search of a Public Philosophy*. Cambridge, MA, and London, UK: The Belknap Press of Harvard University Press.
- Saul, J.R. (1997). *The Unconscious Civilization*. Ringwood, Victoria, Australia: Penguin Books Australia (orig. Don Mills, Ontario, Canada: House of Anansi Press, 1995).
- Seligmann, A.B. (1992). *The Idea of Civil Society*. New York: Free Press.
- Ulrich, W. (1983). *Critical Heuristics of Social Planning: A New Approach to Practical Philosophy*. Bern, Switzerland, and Stuttgart, Germany: Paul Haupt. Pb. reprint edn., Chichester, UK, and New York: Wiley, 1994 (same pagination).
- Ulrich, W. (1984). Management oder die Kunst, Entscheidungen zu treffen, die andere betreffen. *Die Unternehmung*, Schweizerische Zeitschrift für betriebswirtschaftliche Forschung und Praxis / Swiss Journal of Business Research and Practice, 38, No. 4, pp. 326-346.
- Ulrich, W. (1987). Critical heuristics of social systems design. *European Journal of Operational Research*, 31, No. 3, pp. 276-283. Reprinted in M.C. Jackson, P.A. Keys and S.A. Cropper, eds., *Operational Research and the Social Sciences*, New York: Plenum Press, 1989, pp. 79-87, and in R.L. Flood and M.C. Jackson, eds., *Critical Systems Thinking: Directed Readings*, Chichester, UK, and New York: Wiley, 1991, pp. 103-115.
- Ulrich, W. (1988). Systems thinking, systems practice, and practical philosophy: a program of research. *Systems Practice*, 1, No. 2, pp. 137-163. Reprinted in R.L. Flood and M.C. Jackson, eds., *Critical Systems Thinking: Directed Readings*, Chichester, UK, and New York: Wiley, 1991, pp. 245-268.
- Ulrich, W. (1993). Some difficulties of ecological thinking, considered from a critical systems perspective: a plea for critical holism. *Systems Practice*, 6, No. 6, pp. 583-611.
- Ulrich, W. (1994). Can we secure future-responsive management through systems thinking and design? *Interfaces*, 24, No. 4, 26-37.
- Ulrich, W. (1995). Critical Systems Thinking for Citizens: A Research Proposal. *Research Memorandum*, 10. Centre for Systems Studies, University of Hull, Hull, England, 28 November 1995.
- Ulrich, W. (1996a). *A Primer to Critical Systems Heuristics for Action Researchers*. Centre for Systems Studies, University of Hull, Hull, England, 31 March 1996.
- Ulrich, W. (1996b). Critical systems thinking for citizens. In R.L. Flood and N.R.A. Romm (eds.), *Critical Systems Thinking: Current Research and Practice*, New York: Plenum, pp. 165-178.
- Ulrich, W. (1998). *Systems Thinking as if People Mattered: Critical Systems Thinking for Citizens and Managers*. Working Paper No. 23, Lincoln School of Management, University of Lincolnshire & Humberside (now University of Lincoln), Lincoln, UK, June 1998.  
[PDF] [http://wulrich.com/downloads/ulrich\\_1998c.pdf](http://wulrich.com/downloads/ulrich_1998c.pdf)
- Ulrich, W. (2000). Reflective practice in the civil society: the contribution of critically systemic thinking. *Reflective Practice*, 1, No. 2, pp. 247-268.  
[DOI] <http://dx.doi.org/10.1080/713693151> (restricted access)  
[PDF] [http://wulrich.com/downloads/ulrich\\_2000a.pdf](http://wulrich.com/downloads/ulrich_2000a.pdf) (prepublication version)
- Ulrich, W. (2001). The quest for competence in systemic research and practice. *Systems Research and Behavioral Science*, 18, No. 1, pp. 3-28.  
[DOI] <http://dx.doi.org/10.1002/sres.366> (restricted access)  
[PDF] [http://wulrich.com/downloads/ulrich\\_2001a.pdf](http://wulrich.com/downloads/ulrich_2001a.pdf) (prepublication version, open access)
- Ulrich, W. (2003). Beyond methodology choice: critical systems thinking as critically systemic discourse. *Journal of the Operational Research Society*, 54, No. 4, pp. 325-342.  
[DOI] <http://dx.doi.org/10.1057/palgrave.jors.2601518> (restricted access)
- Ulrich, W. (2006a). Critical pragmatism: a new approach to professional and business ethics. *Interdisciplinary Yearbook of Business Ethics*, Vol. 1, ed. by L Zsolnai. Oxford, UK, and Bern, Switzerland: Peter Lang, pp. 53-85.
- Ulrich, W. (2006b). A plea for critical pragmatism. (Reflections on critical pragmatism, Part

- 1). *Ulrich's Bimonthly*, September-October 2006.  
[HTML] [http://wulrich.com/bimonthly\\_september2006.html](http://wulrich.com/bimonthly_september2006.html)  
[PDF] [http://wulrich.com/downloads/bimonthly\\_september2006.pdf](http://wulrich.com/downloads/bimonthly_september2006.pdf)
- Ulrich, W. (2006c). Rethinking critically reflective research practice: beyond Popper's critical rationalism. *Journal of Research Practice*, 2, No. 2, 2006, Article P1.  
[HTML] <http://jrp.icaap.org/index.php/jrp/article/view/64/63>  
[PDF] <http://jrp.icaap.org/index.php/jrp/article/view/64/120> or  
[PDF] [http://wulrich.com/downloads/ulrich\\_2006k.pdf](http://wulrich.com/downloads/ulrich_2006k.pdf)
- Ulrich, W. (2006d). Theory and practice I: beyond theory. (Reflections on critical pragmatism, Part 2). *Ulrich's Bimonthly*, November-December 2006.  
[HTML] [http://wulrich.com/bimonthly\\_november2006.html](http://wulrich.com/bimonthly_november2006.html)  
[PDF] [http://wulrich.com/downloads/bimonthly\\_november2006.pdf](http://wulrich.com/downloads/bimonthly_november2006.pdf)
- Ulrich, W. (2007a). The greening of pragmatism (ii): current issues in developing critical pragmatism – a methodological trilemma. (Reflections on critical pragmatism, Part 5). *Ulrich's Bimonthly*, May-June 2007.  
[HTML] [http://wulrich.com/bimonthly\\_may2007.html](http://wulrich.com/bimonthly_may2007.html)  
[PDF] [http://wulrich.com/downloads/bimonthly\\_may2007.pdf](http://wulrich.com/downloads/bimonthly_may2007.pdf)
- Ulrich, W. (2007b). Philosophy for professionals: towards critical pragmatism. *Journal of the Operational Research Society*, 58, No. 8, 2007, pp. 1109-1113. Rev. postpublication version in *Ulrich's Bimonthly*, March-April 2016 (Reflections on Critical Pragmatism, Part 7).  
[HTML] [http://wulrich.com/bimonthly\\_march2016.html](http://wulrich.com/bimonthly_march2016.html) (rev. postpublication version)  
[PDF] [http://wulrich.com/downloads/bimonthly\\_march2016.pdf](http://wulrich.com/downloads/bimonthly_march2016.pdf) (rev. postpubl. version)
- Ulrich, W. (2007c). The greening of pragmatism (iii): the way ahead. (Reflections on critical pragmatism, Part 6). *Ulrich's Bimonthly*, September-October 2007.  
[HTML] [http://wulrich.com/bimonthly\\_september2007.html](http://wulrich.com/bimonthly_september2007.html)  
[PDF] [http://wulrich.com/downloads/bimonthly\\_september2007.pdf](http://wulrich.com/downloads/bimonthly_september2007.pdf)
- Ulrich, W. (2008). Reflections on reflective practice (1/7): the mainstream concept of reflective practice and its blind spot. *Ulrich's Bimonthly*, March-April 2008.  
[HTML] [http://wulrich.com/bimonthly\\_march2008.html](http://wulrich.com/bimonthly_march2008.html)  
[PDF] [http://wulrich.com/downloads/bimonthly\\_march2008.pdf](http://wulrich.com/downloads/bimonthly_march2008.pdf)
- Ulrich, W. (2009a). Reflections on reflective practice (5/7): Practical reason and rational ethics: Kant. *Ulrich's Bimonthly*, March-April 2009.  
[HTML] [http://wulrich.com/bimonthly\\_march2009.html](http://wulrich.com/bimonthly_march2009.html)  
[PDF] [http://wulrich.com/downloads/bimonthly\\_march2009.pdf](http://wulrich.com/downloads/bimonthly_march2009.pdf)
- Ulrich, W. (2009b). Reflections on reflective practice (6a/7): Communicative rationality and formal pragmatics – Habermas 1. *Ulrich's Bimonthly*, September-October 2009.  
[HTML] [http://wulrich.com/bimonthly\\_september2009.html](http://wulrich.com/bimonthly_september2009.html)  
[PDF] [http://wulrich.com/downloads/bimonthly\\_september2009.pdf](http://wulrich.com/downloads/bimonthly_september2009.pdf)
- Ulrich, W. (2010a). Exploring discourse ethics (1/2). *Ulrich's Bimonthly*, March-April 2010.  
[HTML] [http://wulrich.com/bimonthly\\_march2010.html](http://wulrich.com/bimonthly_march2010.html)  
[PDF] [http://wulrich.com/downloads/bimonthly\\_march2010.pdf](http://wulrich.com/downloads/bimonthly_march2010.pdf)
- Ulrich, W. (2010b). Exploring discourse ethics (2/2). *Ulrich's Bimonthly*, May-June 2010.  
[HTML] [http://wulrich.com/bimonthly\\_may2010.html](http://wulrich.com/bimonthly_may2010.html)  
[PDF] [http://wulrich.com/downloads/bimonthly\\_may2010.pdf](http://wulrich.com/downloads/bimonthly_may2010.pdf)
- Ulrich, W. (2011). What is good professional practice? Part 1: Introduction. *Ulrich's Bimonthly*, March-April 2011.  
[HTML] [http://wulrich.com/bimonthly\\_march2011.html](http://wulrich.com/bimonthly_march2011.html)  
[PDF] [http://wulrich.com/downloads/bimonthly\\_march2011.pdf](http://wulrich.com/downloads/bimonthly_march2011.pdf)
- Ulrich, W. (2012a). What is good professional practice? Part 3: The quest for rational action. *Ulrich's Bimonthly*, May-June 2012 (1 May 2012).  
[HTML] [http://wulrich.com/bimonthly\\_may2012.html](http://wulrich.com/bimonthly_may2012.html)  
[PDF] [http://wulrich.com/downloads/bimonthly\\_may2012.pdf](http://wulrich.com/downloads/bimonthly_may2012.pdf)
- Ulrich, W. (2012b). CST's two ways: a concise account of critical systems thinking. *Ulrich's Bimonthly*, November-December 2012.  
[HTML] [http://wulrich.com/bimonthly\\_november2012.html](http://wulrich.com/bimonthly_november2012.html)  
[PDF] [http://wulrich.com/downloads/bimonthly\\_november2012.pdf](http://wulrich.com/downloads/bimonthly_november2012.pdf)
- Ulrich, W. (2013). Reflections on reflective practice (6c/7): Discourse ethics and deliberative

democracy, or the difficult path to communicative practice – Habermas 3 (1st half).

*Ulrich's Bimonthly*, May-June 2013 (18 June 2013).

[HTML] [http://wulrich.com/bimonthly\\_may2013.html](http://wulrich.com/bimonthly_may2013.html)

[PDF] [http://wulrich.com/downloads/bimonthly\\_may2013.pdf](http://wulrich.com/downloads/bimonthly_may2013.pdf)

Ulrich, W. (2017a). The concept of systemic triangulation: its intent and imagery. *Ulrich's Bimonthly*, March-April 2017.

[HTML] [http://wulrich.com/bimonthly\\_march2017.html](http://wulrich.com/bimonthly_march2017.html)

[PDF] [http://wulrich.com/downloads/bimonthly\\_march2017.pdf](http://wulrich.com/downloads/bimonthly_march2017.pdf)

Ulrich, W. (2017b). If systems thinking is the answer, what is the question? Discussions on research competence (Part 1/2). *Ulrich's Bimonthly*, May-June 2017.

[HTML] [http://wulrich.com/bimonthly\\_may2017.html](http://wulrich.com/bimonthly_may2017.html)

[PDF] [http://wulrich.com/downloads/bimonthly\\_may2017.pdf](http://wulrich.com/downloads/bimonthly_may2017.pdf) (integral version Parts 1+2)

Ulrich, W. (2017c). If systems thinking is the answer, what is the question? Discussions on research competence (Part 2/2). *Ulrich's Bimonthly*, July-August 2017.

[HTML] [http://wulrich.com/bimonthly\\_july2017.html](http://wulrich.com/bimonthly_july2017.html)

[PDF] [http://wulrich.com/downloads/bimonthly\\_july2017.pdf](http://wulrich.com/downloads/bimonthly_july2017.pdf) (integral version Parts 1+2)

Ulrich, W., and Reynolds, M. (2010). Critical systems heuristics. In M. Reynolds and S. Holwell (eds.), *Systems Approaches to Managing Change: A Practical Guide*. London: Springer, in association with the Open University, Milton Keynes, UK, pp. 243-292.

Walzer, M. (1991) The idea of civil society. *Dissent*, No. 38, Spring, pp. 293-304.

Weber, M. (1930). *The Protestant Ethic and the Spirit of Capitalism*. Transl. by T. Parsons. New York: Harper Collins Academic, and London: George Allen & Unwin (German orig. 1904/05; a new transl. is by S. Kalberg, Los Angeles, CA: Roxbury Publishing, 2002).

Weber, M. (1968). *Economy and Society: An Outline of Interpretive Sociology*, ed. by G. Roth and G. Wittich. New York: Bedminster Press (German orig. 1922; the transl. is based on the 4th ed. 1956).

Weber, M. (1991). *From Max Weber: Essays in Sociology*, new edn., ed. by H.H. Gerth and C. Wright Mills. London: Routledge (orig. New York: Oxford University Press, 1946; German orig. 1919).

Whyte, W.F. (ed.) (1991). *Participatory Action Research*. Newbury Park, CA: Sage.

**Picture data** Digital photograph taken on 5 September 2011, 7:45 p.m., near Riggisberg, Canton Bern, Switzerland. ISO 200, exposure mode aperture priority with aperture f/5.0 and exposure time 1/250 seconds, exposure bias -0.33. Metering mode center-weighted average, contrast low, saturation normal, sharpness low. Focal length 60 mm (equivalent to 120 mm with a conventional 35 mm camera). Original resolution 5184 x 3456 pixels; current resolution 700 x 467 pixels, compressed to 165 KB.

*September-October, 2017*

Boundary critique: a ray of hope for competent citizenship?



*Competent citizenship: a ray of hope*

„We must find a source of competence in citizenship that is available equally to people with or without access to special expertise.”

(From this essay on the value of "boundary critique" for ordinary citizens, professionals, and managers)

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