Between Social Science and Social Technology: Towards a Philosophical Foundation for Postcommunist Transformation Studies

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Abstract

This analysis examines fundamental questions at the intersection of social science and social technology, as well as problems of disciplinary divisions and the challenge of cross-disciplinary cooperation. Its theoretical-empirical context is provided by post-communist transformations, a set of profound societal changes in which institutional design plays a central role. The article critically reappraises the contribution of Karl Popper’s philosophy to this problem context; examines neoliberalism as social science and social technology, as well as the role of experts and disciplinary divisions in the reform process. Building on Mario Bunge’s social philosophy, it sketches basic elements of a cross-disciplinary approach to “social change by design.”
Today it has become fashionable in the sciences to appeal to the specialized knowledge and authority of experts, and fashionable in philosophy to denigrate science and rationality. Oftentimes, this denigration of science and rationality is due to a mistaken theory of science and rationality – a theory which speaks of science and rationality in terms of specializations, experts, and authority. But science and rationality have really very little to do with specialization and the appeal to expert authority. On the contrary, these intellectual fashions are actually an obstacle to both. For just as the fashionable thinker is a prisoner of his fashion, the expert is a prisoner of his specialization. And it is the freedom from intellectual fashions and specializations that makes science and rationality possible (Popper 1994, ix).

Context
The present analysis examines fundamental questions at the intersection of social science and social technology, as well as problems of disciplinary divisions and the challenge of cross-disciplinary cooperation. What follows is primarily a philosophical analysis that has as its substantive theoretical and empirical focus the general field of post-communist transformation studies. Emerging in the aftermath of the communist regime collapse in Eastern Europe and the Soviet Union, this is a relatively young field that has attracted scholars from a wide range of disciplines – economics, political science, sociology, geography, demography, psychology, as well as history, cultural studies, and philosophy. The field was quickly acknowledged as one of the best “social science laboratories” (Offe 1991) for disciplines that rarely have the opportunity to undertake their empirical studies under “laboratory” conditions. However, it is not just the great speed, the profound and comprehensive character, and the contemporaneity of social changes in the post-communist regions that qualify them as quasi-laboratories. In the age of globalization few places are spared the powerful effects of accelerated social change. Yet nowhere have we witnessed such conscious and concerted attempts to steer and control these macro processes of social change towards a well-defined set of systemic goals – attempts usually referred to as “making the transition to the market and democracy.” The transition doctrines, plans, and policies that have been produced, reached dominance and have been implemented to varying degrees constitute what at any rate could be considered the most advanced forms of large-scale social technology at the end of the twentieth century, as I will further explain below. As such, it is the design element of these change processes that makes them particularly relevant for social studies in general. In other words, what enhances the quasi-laboratory conditions of the post-communist regions is the fact that experiments in social engineering (to use Popper’s phrase) are in fact being carried out, if not under the direct guidance of scientists themselves, then by politicians with the help of experts who presumably draw on scientific knowledge. Post-communist studies thus is an excellent field for studying the relationship between social science and social technology and the challenge of cross-disciplinary cooperation. In the spirit of critical
rationalism, this paper will revisit some of Karl Popper’s ideas of relevance in this context and try to improve upon them.

**Popper and Transformation Studies**

[My social theory (which favours gradual and piecemeal reform, reform controlled by a critical comparison between expected and achieved results) contrasts with my theory of method, which happens to be a theory of scientific and intellectual revolution (Popper 1994, 68).]

The most relevant contributions of Popper’s philosophy to the field of transformation studies I take to be: (1) the problem-oriented approach and (2) the critique of utopian social engineering. The first is particularly significant for questions of disciplinary division and cooperation. The second relates to the role of social science and social technology in social change. I will briefly introduce my own adaptation of the problem-oriented approach to transformation studies in the following section. Suffice it to say at this point that Popper’s insistence on the primacy of problems, both theoretical and practical, in advancing scientific knowledge relegates disciplinary boundaries and frameworks to the status of administrative divisions – whose intrinsic theoretical merit, if any, is more than offset by their tendency to stifle scientific inquiry (see, e.g. Popper 1994, 1970).

Popper’s critique of utopian social engineering (Popper 1966, 1972), developed in the context of the communist experiment of revolutionary social change by design, as well as his endorsement of “piecemeal social engineering,” have remained highly relevant for the post-communist experiments (Dahrendorf 1990, Isaac 1996, Kabele and Radzai 1993, Murrell 1995, Murrell 1992, Soros 1998, Sullivan 1994). Ralf Dahrendorf, for example, in his *Reflections on the Revolution in Europe* (first published in 1990), explicitly refers to Popper’s conception of utopian vs piecemeal social engineering as he reflects on the tasks facing reformers in Eastern Europe immediately after the collapse of communism. Dahrendorf himself does not believe that Popper’s conception is helpful for the problem at hand. “Even apart from the unfortunate connotations of social engineering, ‘piecemeal’ is not quite enough when one is faced with a constitutional challenge” (Dahrendorf 1990, 161). In a decade of work in the field of post-communist studies, I have gradually come to the conclusion that Dahrendorf is right: Popper’s conception is ultimately inadequate and even misleading, as I will try to show below. However, this is not to say that it does not contain valuable and highly relevant insights for some fundamental problems of social science and social technology. My own sense in 1989/90, while just completing a dissertation that used some of Popper’s arguments and insights to account for the peculiar and unintended consequences of East German private sector social engineering under
communist rule (Pickel 1992a), was that the radical blueprints for the rapid transition to
capitalism known as economic shock therapy could fruitfully be approached as contemporary
instances of utopian social engineering. The proponents of radical, comprehensive reform
doctrines as well as many other participants and observers of the events, by contrast, assumed that
whereas the goal of socialism had been utopian, establishing a liberal market order supposedly
was not. As a result, unlike his conception of the open society, Popper’s critique of utopian social
engineering was not really considered applicable to post-communist Eastern Europe. Proponents
of radical reforms feared primarily the political and bureaucratic opposition of anti-reformist
interests rather than other, deeper obstacles in the way of reaching the non-utopian goal of the
market. But it was precisely some of those deeper obstacles that Popper had in mind when he
rejected “wholesale social engineering” as utopian. True, the context for his original critique was
the Marxist-Leninist project of social transformation. But the force of his argument was directed
against a specific, holistic approach to social reform, not simply against this or that set of utopian
goals. Thus his critique applies equally to the neoliberal project of radical marketization. In
Popper’s words: “Holistic or Utopian social engineering, as opposed to piecemeal social
engineering . . . aims at remodeling the ‘whole of society’ in accordance with a definite plan or
blueprint.”

The piecemeal engineer knows, like Socrates, how little he knows. He knows that we can learn
only from our mistakes. Accordingly, he will make his way, step by step, carefully comparing the
results expected with the results achieved, and always on the look-out for the unavoidable
unwanted consequences of any reform; and he will avoid undertaking reforms of a complexity and
scope which make it impossible for him to disentangle causes and effects, and to know what he is
really doing (Popper 1976, 67).

Popper’s epistemological argument seems to condemn any comprehensive and fundamental
social reform project, including post-communist marketization and democratization, as utopian,
for the systemic changes are necessarily of a complexity and scope that transcend the careful,
step-by-step method he favors. However, the crux of his argument against the holistic approach
is the claim that such wholesale changes turn out to be impossible to accomplish in practice.
“The greater the holistic changes attempted, the greater are their unintended and largely
unexpected repercussions, forcing upon the holistic engineer the expedient of piecemeal
improvization.”

[I]t continually leads the Utopian engineer to do things which he did not intend to do; that is to
say, it leads to the notorious phenomenon of unplanned planning. Thus the difference between
Utopian and piecemeal social engineering turns out, in practice, to be a difference not so much in
scale and scope as in caution and preparedness for unavoidable surprises. One could also say that,
in practice, the two methods differ in other ways than in scale and scope – in opposition to what
we are led to expect if we compare the two doctrines concerning the proper methods of rational
social reform (Popper 1976, 68-69).
This fundamental insight, derived from Popper’s fallibilist epistemology, contributes significantly to our understanding of why radical liberalization programs in so many former communist countries were never fully implemented (Pickel and Wiesenthal 1997). They were conceived as a revolutionary process of “planned unplanning” and have ended up, precisely as Popper predicts, as processes of “unplanned planning.” Yet this central insight alone does not help us to explain the very significant differences in levels of success and failure attained by different reform countries in their clearly “holistic” – that is, comprehensive and large-scale, systemic – reform projects. The reason is that Popper’s epistemological insight is only one, albeit important, part of the story. It concerns directly only the limitations of our social scientific knowledge. That epistemological fallibilism has implications for social technology should be evident. However, what these implications are, and more specifically, what the relationship between social science and social technology is, could be, and should be, is barely examined in Popper’s work (see, however, Agassi 1985, Albert 1976, Bunge 1998, Dryzek 1990, Fischer 1993). Radical reformist doctrines of comprehensive liberalization (“planned unplanning”) were not primarily scientific claims (though all too often they were claimed to have scientific status). Rather, they were above all action plans for key reform policies and political platforms in the struggle for political power and ideological hegemony. As such, should they really be subject to the same criticisms as scientific theories?

The Fundamental Problems of Post-Communist Transformation

The work of the scientist does not start with the collection of data, but with the sensitive selection of a promising problem – a problem that is significant within the current problem situation, which in its turn is entirely dominated by our theories. [. . .] Scientific problems are preceded, of course, by pre-scientific problems, and especially by practical problems (Popper 1994, 155-156).

In my own work on post-communist transformations, I have tried to explore the relationship between science, policy, and politics in somewhat greater depth. In this I was inspired by Popper’s problem-oriented approach, his second major contribution of relevance to transformation studies. While Popper has nowhere systematically developed such a problem-oriented approach, it seems nevertheless fundamental to his fallibilist philosophy. In short, knowledge without absolute foundations that nonetheless is claimed to advance through trial and error requires non-foundational criteria for identifying and criticizing our mistakes. Popper’s disciple W.W. Bartley has proposed four methods of criticism that can be applied to empirical theories, metaphysical assumptions, or political norms without themselves being based on any epistemological authority.
We have at least four means of eliminating error by criticizing conjectures or speculations. These checks are listed in descending order according to their importance and the rigor with which they can be applied. (1) The check of logic: Is the theory in question consistent? (2) The check of sense observation: Is the theory empirically refutable by some sense observation? And if it is, do we know of any refutations of it? (3) The check of scientific theory: Is the theory, whether or not it is in conflict with sense observation, in conflict with any scientific hypotheses? (4) The check of the problem: What problem is the theory intended to solve? Does it do so successfully?” (Bartley 1984, 127)

In the following quotation, Popper himself elucidates what is implied by the check of the problem.

“Every rational theory, no matter whether scientific or philosophical, is rational in so far as it tries to solve certain problems. A theory is comprehensible and reasonable only in its relation to a given problem-situation, and it can be rationally discussed only by discussing this relation. Now if we look upon a theory as a proposed solution to a set of problems, then the theory immediately lends itself to critical discussion – even if it is non-empirical and irrefutable. For we can now ask questions such as, Does it solve the problem? Does it solve it better than other theories? Has is perhaps merely shifted the problem? Is the solution simple? Is it fruitful? Does it perhaps contradict other philosophical theories needed for solving other problems? (Popper 1965, 199)

In my attempt to come to grips with the status and function of reformist doctrines in the post-communist context, it became increasingly clear to me that their significance and power in the debate had little to do with their scientific credentials. Indeed, radical reform advocates have typically combined mainstream neoclassical economics, historicism, and market essentialism into an impressive looking “scientific” foundation for systemic transformation that serious social scientists could not possibly accept as such (Pickel 1995, 1997). Yet, radical market reformism has remained politically dominant, and it has arguably produced both transformation successes and failures. How could a scientifically weak doctrine remain so strong politically and even be implicated in some policy successes? In order to answer this somewhat puzzling question, let us begin by broadening Popper’s problem-oriented approach.

Post-communist transformation processes relate to a host of fundamental theoretical problems in the social sciences – probably the main reason why it has become such an attractive field of study for scholars in these disciplines. Reform doctrines can be examined in terms of their theoretical content: any contemporary social reform doctrine that is internally inconsistent, empirically untenable, or seriously at odds with current social science knowledge is unlikely to be translated into rational, science-based reform policy (i.e. social technology). Neoliberalism, as we will see in a moment, is an instance of such a pseudo-scientific, or at best proto-scientific, reform doctrine. Problems of post-communist transformation at the theoretical level are problems of conceptualizing and explaining the changes under way in formerly or still communist countries in the context of a larger body of knowledge concerning processes of fundamental social change. Of particular importance at this level is the problem of fundamental reform, that
is, the conditions for the possibility of controlled social change. The scientific evidence concerning the possibility of controlled holistic reform programs has in fact led most theorists, quite in line with Popper, to conclude that in modern complex societies such projects of planned systemic change are practically impossible (Wiesenthal 1997). However, while reform doctrines can and should be assessed by such scientific standards, this alone would give us only a very partial view of their overall strength. The reason is that reform doctrines are designed as well, or perhaps above all, to solve different types of problems.

With the sudden and unexpected collapse of Communist regimes in 1989, there was an immediate practical, i.e. strategic and policy need for suitable reform doctrines. At the time, a political consensus quickly emerged that a controlled systemic transition from a centrally planned economy to a capitalist market economy was possible (Berend 1999, Szacki 1996), so the debate shifted largely to questions of strategy and policy. The problem context from this strategic, policy point of view differs in fundamental respects from the social scientific problem context. The strategic debate largely ignored the social sciences’ “impossibility theorem” and, for its practical purposes, adopted the opposite working assumption: the systemic transition from communism to capitalism can be achieved through a radical institutional break with the past and the rapid introduction of a “market infrastructure.” Like any social technology designed to effect change, post-communist reform doctrines identify a given state of affairs as unsatisfactory, spell out the alternative state of affairs or goal to be reached, and assign the appropriate means or policies. Unlike social science, social technology is based on political norms and moral standards that determine what constitutes an unsatisfactory state of affairs, a desirable goal, and acceptable means. The particular problem situation after the collapse of communism favored rather stark and simplistic answers to these basic questions: the communist system was bankrupt, capitalism and liberal democracy were desirable and indeed “natural” or at least “historically inevitable,” and systemic change required little more than the elimination of the old system plus a set of liberalization measures. This radical simplification of reality and drastic conceptual reduction of the problem to a few crucial variables responded powerfully to the fundamental problem of strategy and policy in 1989. Richer, more nuanced conceptions (cf. gradualism; Murrell 1992, Poznanski 1995) proved to be too complex and normatively too ambiguous to provide competitive answers to the question, what is to be done. Of course, a social technology should not be judged solely in terms of its prospects for being adopted. The most basic standard to apply to any social technology is, does it work? Yet a social technology that is never adopted by definition cannot pass the test. A social technology that works barely, or generates mixed
success, on the other hand, can be defended by its proponents in a variety of ways (Aslund 1995). This takes us from the level of strategy to the level of ideology and politics.

From the definition of the political agenda to the legitimation of the political order, there is a range of problems that any society has to cope with in order to create a minimum of social stability, internal peace and external security, and thus the preconditions for the possibility of achieving more ambitious societal goals, such as stable democracy, prosperity, and regional integration. Societies undergoing rapid and profound changes experience these problems much more acutely than stable societies where established institutional mechanisms and routines may be so successful that these fundamental problems seem non-existent. Ideologies provide responses to these fundamental problems and are crucial in developing and maintaining these more permanent institutional mechanisms and routines. In this sense, the economic transformation of a society is perhaps above all a political challenge. The challenge of economic reform poses a variety of specific ideological and political problems: forging a vision for the new order, mobilizing voters for the reform programme, reaching elite consensus on policies, defining and securing the country’s place in the larger world, providing legitimation of policy outcomes and the emerging new order, maintaining the credibility of and commitment to the reform project, and holding political opponents in check. Any social technology for fundamental change has to prove itself in such an ideological and political problem context. Its relative success in those respects will determine not only whether a reform doctrine will be adopted, but also whether it will have a social and political environment within which, once adopted, it can work.

In sum, social technologies such as post-communist reform doctrines should be evaluated using a problem-oriented approach. However, it is crucial to take into account the diverse problems and problem contexts in which social technologies have to prove themselves. We have discussed three general sets of problems and contexts: scientific knowledge (“is the doctrine true?”), strategy and policy (“does it work?”) and ideology and politics (“does it sell and do its clients remain faithful?”). Let us now illustrate our problem-oriented method by looking more closely at the most successful post-communist reform doctrine – neoliberalism.

**Neoliberalism as social technology**

Neoliberalism is probably the most influential doctrine of social change in the late twentieth century. In the light of our distinction between three fundamental types of transformation problems – theoretical, strategic, and political – let us now look more closely at neoliberalism. As with any theory, doctrine or ideology, attempts to capture its “essence” can always be criticized as inaccurate, misleading, or simply a convenient target constructed by the critic for
subsequent demolition. Our purpose here is not simply to expose neoliberalism as ideology. To acknowledge the fact that it provides answers to fundamental political and ideological questions is therefore not a criticism as such. There are no non-ideological answers to these questions. From a scientific point of view, we would ask the theoretical and empirical question whether and to what extent the ideology is politically successful in a given problem context. From a normative point of view, we would ask moral and political questions about the ideology’s defensibility (even if successful, it may be reprehensible; cf. Standing 1998).

The political success of neoliberalism as an ideology of post-communist change in Eastern Europe is largely due to its contextual fit, that is, to the way in which it was able to address the fundamental problems of order and legitimacy after the collapse of communism and the specific ideological and political problems of systemic reform sketched out above. At the same time, it is important to note the limits of neoliberalism’s success as an ideology in Eastern Europe, especially for purposes of domestic agenda setting, mobilization, and legitimization. Anti-liberal, ethnic nationalism has been and continues to be a powerful force in the whole region. The further east and south we move, the less successful has been the ideological strength of neoliberalism in terms of its domestic political purchase. As the ideology and discourse of globalization and regional integration, its popularity and situational fit seem to reflect closely a particular country’s prospects and its population’s self-perceptions along these lines.

But neoliberal reform doctrines have also been extremely influential as social technologies for economic reform. In fact, most proponents of neoliberalism would flatly deny my characterization of their reform doctrines as ideological, a charge they usually reserve for their opponents. Neoliberals routinely invoke neoclassical economics as the scientific basis of their social technologies of market transition. We will examine the quality and strength of this basis below. Let us first note, however, that social technologies cannot be directly derived from scientific knowledge because they are neither politically nor morally neutral. (Conversely, reform doctrines that derive mainly from ideological precepts with little or no basis in current scientific knowledge should not be considered social technologies but merely techniques). Neoliberals tend to downplay or ignore the unavoidable normative dimensions of reform technology. In fact, by playing on the scientific credentials of economics as a discipline, neoliberals have been successful in selling their doctrines as expert social technology and progressive ideology to the powerful, and even the less powerful. The considerable sophistication with which neoliberal transition policies have been sold to reformers and many of the to-be-reformed suggests that this dimension of promoting their doctrines might itself be
considered a social technology – more specifically as the cultural and political technology of spreading economic ideas (on Keynesianism, see Hall 1989; on neoliberalism, see George 1999).

There continues to be a heated debate on the relative success of neoliberal reforms in post-communist Eastern Europe. Admittedly, the apparent simplicity of the question whether neoliberal social technology works, can work, or has worked is deceiving. Even if we accept the simplifying assumption that neoliberal reform doctrines were more or less followed for at least some time in the entire region (Zecchini 1997), the picture remains sufficiently ambivalent to support various, mutually inconsistent interpretations. They range from the dogmatic technocratic view that reform failures simply mirror inadequate adoption and implementation of radical reforms, to more nuanced views that take into account different initial conditions (Balcerowicz 1995), historical legacies (Jowitt 1992), social networks (Grabher and Stark 1997) or international dynamics (Bönker 1994, Chilton 1995) in the reform process. To complicate matters further, neoliberal reforms qua social technology can only be adequately judged if both empirical-theoretical and normative-political standards are applied. The debate tends to be hopelessly confused on this distinction, presenting normative (often patently ideological) judgments as scientific assessments, or conversely rejecting empirical evidence or theoretical arguments as ideological. Taking reform doctrines such as neoliberalism seriously as social technology, as is proposed here, injects some analytical clarity into this debate. Such doctrines are not – and should therefore not be presented as – just science, as many proponents of reform plans tend to do. At the same time, they are not – or at least may not be – just ideology, as their critics tend to charge (Gowan 1995). A social technology needs both a sound scientific basis and a sound moral-political basis. The remainder of the paper will focus on the scientific basis of neoliberal social technology. This will give us an opportunity to attend more closely to questions of interdisciplinarity, our second major theme.

Transformation Studies, Experts, and the Disciplinary Division of Labour

A necessary condition for unified policy-making is a unified social science (Bunge 1998, 452).

Since the beginning of the transformations in 1989, experts have played crucial roles in the fundamental restructuring of formerly Communist economies and states. From the first wave of economic experts counseling shock therapy to the current wave of specialists in European Union rules and regulations (Jacoby forthcoming), a host of social technologies, mostly of Western
Andreas Pickel, Between Social Science and Social Technology

origin, have been adopted and adapted in the reform process. They include macroeconomic policies such as stabilization and liberalization, institutional reforms such as privatization and social sector restructuring, constitutional reforms of the state such as democratization and regionalization, as well as the introduction of innumerable new rules and regulations designed to create the framework of a liberal market economy and polyarchy on the remains of the Communist system. There can be no doubt that the systemic switch from an old and exhausted model of industrialism and centralism to a new and dynamic informational economy and pluralistic politics depends for its success to a large extent on the expert knowledge of many different specialists. Whether it is banking reform, pension reform, electoral law, corporate law or environmental regulation, only specialists are in a position to design the requisite social technologies to bring into being such political and economic institutions.

Many of the experts, and even more of the expert knowledge, have been imported from the West. This should be no surprise, since the economic and political systems to be created are those of Western capitalism and liberal democracy. What was missing, and what the West could not supply, was expertise in guiding such large-scale, complex, and interrelated transformation processes. The available specialized knowledge was helpful to the extent that limited sociotechnical systems were to be implanted. It was unhelpful and often dangerous to the extent that such limited sociotechnical systems depended for their anticipated functioning on a variety of formal-legal, informal cultural, and other preconditions that were not in place and could not easily be transplanted from their original context. Many social technologies for reform were more or less arbitrary abstractions from specialized knowledge that was insufficiently aware of its own embeddedness in a particular economic, political and cultural system. Thus the utopian character of such reform policies was not due to excessive scope but rather to an excessively limited, sectoral conception of reality and a corresponding piecemeal approach to changing it that is insufficiently holistic in perspective. Traditional disciplinary divisions in the social sciences have played a major role in this. Mainstream neoclassical economics, the scientific basis for neoliberal social technology, is a case in point.

Economists and economic experts as a group probably enjoy the greatest influence and respect among social scientists in the West. Their authority is based in part on a carefully maintained image of neoclassical economics as a genuine science (as opposed to such allegedly pre-scientific disciplines as sociology and political science). Politicians and the public at large, however, are rarely interested in the scientific discoveries of mainstream economists. They are interested in advice and forecasts that address practical problems. However, as we have seen above, such policy advice is at best part science, and always part ideology. The public authority
of mainstream economists is closely related to their collective ability to have consumers of their expertise associate their policy advice with science, objectivity, and rationality, whereas the policy advice of dissenters is portrayed as unscientific, partisan, and ideological. The same mechanism, enhanced by the initial attractiveness of all things Western and the helping hand of Western financial institutions and political elites, has been transplanted to Eastern Europe and placed economic experts in the role of “wholesale social engineers.”

As a scientific basis for social technologies of post-communist transformation, however, neoclassical economics has surprisingly little to contribute. First, while the transition from a command economy to a liberal market economy obviously poses a range of economic problems, it also, and simultaneously, poses a range of institutional, political, and cultural problems. Mainstream economists usually do not claim specialized knowledge in the latter types of problems. In fact, their own claim to scientific status depends on a high degree of theoretical formalization that rests on a narrow and sectoral conception of the economy. (In addition, it is also based on highly problematic assumptions about human behaviour and society; Bunge 1998, Ch. 3). While the relevance of this knowledge for explaining economic phenomena even in established market systems is disputed, it is ruefully inadequate as a basis for systemic change by design. Neoclassical economics has no theory of society, but only an idealized and empirically and theoretically precarious model of a market economy. It therefore has no theory of social change, but only a set of implicit normative implications according to which ceteris paribus the closer the economic system is to the stylized market economy, the more efficient the outcomes. It has a highly problematic basis for drawing explicit normative or policy conclusions in welfare economics, but this is a pseudo-scientific attempt to avoid addressing normative and political questions explicitly (Albert 1978, Ch. 5; Bunge 1998, Ch. 10; Myrdal 1954). As a result, policy advice presumably based on, or even “derived from,” neoclassical economics is in large measure ideological, while at the same time denying, or failing to make explicit, its normative assumptions. The central values embedded in neoliberal ideology, the most common ideology to accompany neoclassical theory, places the individual above society, endorses a vision of the individual as a homo oeconomicus, accepts and defends high degrees of social inequality, and, partly because it has so little sense and understanding of the social, opposes any form of collective political action, except when in defense of the market order.

To be sure, the academic discipline of mainstream economics cannot be held primarily responsible for the consequences of any social technologies designed in its name, though barely on its basis. Mainstream economics as a science has, especially in its more recent move towards ever greater formalization and mathematization, not even shown particularly strong interest in so-
called real-world problems. It is thus a great irony that post-communist economic transformations were so powerfully influenced by the advice of economic experts whose scientific knowledge had so little relevance for the sociotechnological problems of systemic change.

Another branch of social science that sometimes claims to look at the big picture and has had some, albeit much less, influence on post-communist transformations, is political science. The intrusion of so-called “transitologists,” that is, specialists on democratization, into the field of post-communist transformation studies has sparked a lively debate on the role of generalizing vs contextually-limited approaches to studying democratization (Bunce 1995, Karl and Schmitter 1995). Unlike their colleagues in the marketization branch of transformation studies, transitologists have played at best a modest role in advising reform governments on political reform. The equivalent of the economic shock therapists in the early stages of transformation were human rights lawyers, who in Popperian spirit advocated “negative constitutionalism – the notion that constitutions have a primarily negative purpose of preventing tyranny” (Holmes 1995; cf. also Pickel 1989). The narrowness of both politico-technological and economico-technological approaches, however, cannot be blamed entirely on the social engineers who might have inadvertently or willfully ignored a vast body of social science knowledge, only waiting to be translated into post-communist reform plans. The problem was and is also one of divided, compartmentalized and often irrelevant social science knowledge. Most important, none of the social sciences was able to provide the kind of integrated, indeed holistic, approach and overarching perspective that the practical problems of transformation required (Müller 1995; the only partial exception, neo-marxist approaches, were politically discredited). In the breach jumped self-appointed experts and ideologues whose reform prescriptions were based on political attractiveness, common sense, intuition, and abstractions of Western models. The result was piecemeal social engineering, albeit in a negative sense: large-scale reform policies were launched in some sectors of society, resulting in major unintended consequences in others, leading to “unplanned planning” and generating enormous social and economic costs.

A Social Philosophy for a Unified Social Science

A well-rounded social philosophy must include a positive theory of society along with a positive moral philosophy--that is, one positing social goods, however debatable and changeable. Without such a global and positive social philosophy, no clear vision of an open society can emerge. And without such vision, people won't be mobilized to build the new society (Bunge 1996b, 552).

Popper’s social philosophy contains many useful suggestions for the theory and practice of transformation. In particular, his strong critique of utopian blueprints for reform has remained of
some relevance here, as I have tried to show above. An even more important, methodological tool, in my view, is Popper’s problem-oriented approach, even if he did not sufficiently elaborate it for problems of social science theorizing, planning, and implementing social changes. In fact, as Mario Bunge reminds us:

Although he favored planned social reform, Popper never put forth any constructive proposals for it. Moreover, he did not examine in detail any of the social technologies, such as normative macroeconomics, city planning, social medicine, the law, or management science, all of which raise interesting ontological and epistemological problems--such as, for instance, the question of the very nature of plans as different from theories. (Moreover, he was not entirely clear about the distinction between social science and social technology.) [. . .] By writing off all ideologies--and moreover without analyzing in any detail the very concept of an ideology--Popper locked himself out of political science and political philosophy (Bunge 1996b, 542-543).

The problem of controlling political rulers, perhaps the centrepiece of Popper’s social philosophy, identifies one, albeit not the only or even the central problem of politics. Two at least equally fundamental problems are the problem of political order and the problem of political legitimacy (Pickel 1989, Eidlin 1997). Moreover, post-communist transformation is not confined to changes in the political system. It includes simultaneous and interrelated changes in economic and cultural systems, embedded in regional and global dynamics, that raise fundamental problems of their own. It is here that the limits of Popper’s social philosophy become particularly evident.

Popper has had nothing original, let alone constructive, to say about any social order, actual or desirable, beyond that it should be nontyrannical and should involve the protection of the destitute. [. . .] Popper's social philosophy lacks a theory about social order because he has neither a theory of society nor a positive moral philosophy. All Popper's social philosophy does is admonish us to replace the substantive traditional question "Who shall be the rulers?" with the procedural question "How can we tame them?" [. . .] In other words, Popper's conception and defense of liberty and democracy is limited to law and politics, and even then only to their mechanics. It warns us against despotism but does not help us redesign society to remove the sources of tyranny. Hence Popper's praise of social engineering, though sincere, rings hollow: it enjoins us to plan without specifying any goals other than freedom. The result is a negative, spotty, superficial, formalist, and at places inconsistent social philosophy. It bears no comparison with the social philosophies of Khaldun, Machiavelli, Spinoza, Hobbes, Locke, Montesquieu, Rousseau, Mill, Marx, or even Paine, Kropotkin, or Laski. In my opinion it is also inferior to Popper's own contribution to the theory of knowledge, in particular his successful demolition of inductive logic and defense of epistemological realism (Bunge 1996b, 550-551).

Even if Popper’s social philosophy is admittedly “thin,” in the sense that it has a narrow view of politics, little to say about economics and culture, and is unhelpful for the crucial distinction between problems of social science, social technology, and ideology, does it not provide at least an innovative methodological approach to social theorizing in the form of the “logic of the situation”? As a matter of historical record, the “logic of the situation” has not had any significant influence in the social sciences. Popper’s version of methodological individualism is at odds with the very popular and influential rational choice model (Agassi 1987). And it is
obviously opposed to all approaches in the social sciences that espouse one or the other version of
methodological holism. A recent symposium reexamining Popper’s model of situational analysis
has yielded a mixed verdict on its usefulness and relevance (Philosophy of the Social Sciences
1998). Popper’s methodological individualism recapitulates an ontological individualism in the
tradition of Mill, Weber, and neoclassical economics. This individualism – both ontological and
methodological – has significant merits as a critical response to holism or collectivism, but it
reaffirms a questionable alternative. As Bunge points out, individualism commits us to the view
that there are no social entities with supraindividual features. This is highly problematic for two
reasons.

One is that every human being is part of several social systems--such as families, business firms,
schools, clubs, and informal social networks--so that his behavior is unintelligible without
reference to them. Another reason is that every social system is characterized by emergent or
systemic properties, such as social structure, viability, cohesion, history, progress, decline, and
wealth distribution. [. . .] Whoever denies the existence of social systems is bound to either
smuggle them in or invent surrogates for them. Popper was no exception. Indeed, to explain
individual actions, Popper invokes institutions and "situations" (or "states of affair") as other
individualists invoke "contexts" and "circumstances. [. . .] The entire "logic of the situation"
resorts then to supraindividual items . . . Popper's social ontology may therefore be characterized
as individholistic rather than as consistently individualistic. (More on this hybrid in Bunge 1996a.)

What alternative, substantive social philosophy is there for a critical rationalist working on
problems of post-communist transformation – one that would be consistent with a problem-
oriented approach, would empower us to transgress disciplinary borders, and give us tools to deal
with the relationship between social science and social technology?

Towards a Cross-Disciplinary Approach to Post-Communist Transformation

Constructive action, whether individual or social, calls for positive views and plans in addition to
rational discussions of goals and means. In particular, the design, planning, and construction of a
better social order requires more than a handful of danger signals to help avoid or fight tyranny: it
also calls for a positive social philosophy including a clear vision of the open society--one capable
of motivating and mobilizing people. (The warning "Here be dragons" may be helpful, but it does
not point to the right way.) And such a philosophy had better form a system rather than an
aggregate of disjoint views, for social issues--like any correct ideas about them--happen to come in
bundles, not one at a time. One step at a time, yes; one thing at a time, no (Bunge 1996b, 553-
554).

Much of the transition literature follows conventional disciplinary lines of inquiry. This is as true
for the economics literature as for the political science literature on post-communist
transformation, the two fields that account for the bulk of scholarly production in the first decade
of post-communist “transitology.” Much of this literature, even when it has not explicitly taken
the form of policy advice, appears to be normatively and ideologically driven. Specifically,
Andreas Pickel, Between Social Science and Social Technology 15

economists are working on the premise that the telos of transformation is the establishment of a Western-style market economy, while political scientists are studying the conditions for and obstacles to democratization and democratic consolidation along Western lines. The problem is not the presence of normative and ideological assumptions as such, but rather the often implicit adoption of the view that the radical change processes occurring in post-communist and other reforming countries are best conceptualized as “catching-up modernization” (Habermas) and Westernization. From this perspective, it appears reasonable to approach the study of transformation as a country’s successful or unsuccessful approximation of an – often idealized – Western economic, political, and cultural model, each dimension of which is best studied on its own by the competent social science discipline.

Along with other critical voices in the debate (see, among others, Grabher and Stark 1997, Greskovits 1998, Rona-Tas 1997), I contend that the Westernization or convergence thesis is not the most appropriate, and potentially a quite misleading, point of departure for the formulation of the fundamental problems of transformation. It uncritically accepts the premises and goals of a political project as basic assumptions for social science theorizing. I propose, by contrast, to conceptualize systemic changes “on their own terms” and in a more open and broader fashion. More concretely, we should remain sensitive to the different degrees to which the political project of Westernization is pursued by various actors and as such constitutes important causal factors that need to be closely examined. However, we need to be equally interested in investigating the actual dynamics of change in the transforming societies that cannot be captured by viewing phenomena of social change discretely as more or less successful instances of economic, or political, or cultural Westernization. In the remainder of the paper, I sketch out a social theoretical foundation for transformation studies that is consistent with a problem-oriented approach, helps us to transgress disciplinary boundaries, and gives us tools to deal with the relationship between social science and social technology. Most of its central ideas are drawn from the philosophy of Mario Bunge.

**Framework: Systemism**

Systemism is an alternative to both individualism and holism. It accounts for both individual agency and social structure. It postulates that everything is a system or a component of one. It models every system in terms of composition, environment, and structure. It breaks down society into four major subsystems – biological or kinship system, economic system, political system, and cultural system. It can be applied at sub-national, national, and transnational levels of analysis. Above the level of societies organized within nation-states, there are regional
Andreas Pickel, Between Social Science and Social Technology

“supersocieties” (e.g. EU) as well as the world social system. It is important to note that, unlike Parsonian systems theory, systemism is not a theory but only a framework or approach, “just a skeleton to be fleshed out with specific hypotheses and data” (Bunge 1996a, 265; further on systemism, Bunge 1996a, Ch. 10; 1998, Ch. 6.3). As such, it is not “static” or blind to processes of conflict and change. “[A]doption of the systemic approach will avoid the pitfalls and tunnel vision which the narrow specialist invariably falls into, incapable as he is of taking into account any features that are not studied in his field. In other words, systemism favors interdisciplinarity and multidisciplinarity. By the same token, it helps to avoid the costly mistakes made by the specialist – scientist or technologist, policymaker or manager – who overlooks most of the features of the real system he studies, designs, or steers” (Bunge 1996a, 266).

**Key Theoretical Concept: Change Mechanisms**

Mechanistic explanation is not to be confused with mechanical explanations. “Whereas a few of the mechanisms studied by contemporary science and technology are mechanical, most are not. Indeed, there are mechanisms of many kinds: electromagnetic, nuclear, chemical, cellular, intercellular, ecological, economic, political, and so on. Any explanation involving reference to a mechanism may be said to be mechanistic” (Bunge 1997, 411). Mechanistic explanation differs from most standard modes of explanation employed in the social sciences: the neopositivists’ “covering law” model of scientific explanation, the interpretive approach of the hermeneutic or *Verstehen* school, as well as functional and teleological modes of explanation.

Like any sweeping and profound social changes, post-communist transformations affect all areas of society. They are “likely to be biological, psychological, demographic, economic, political and cultural – either simultaneously or in succession. Hence, the mechanism of every major social change is likely to be a combination of mechanisms of various kinds coupled together” (Bunge 1997, 417). The systemic framework serves to get these different and interrelated transformation processes into view. The mechanistic mode of explanation helps us to search out and reconstruct the major transformation processes. To be sure, we are not looking for anything like a universal “post-communist transformation mechanism.” On the contrary, “concrete, lawful, and scrutable mechanisms are specific, or, if preferred, substance dependent. Hence, there can be no universal explanations of the mechanistic kind. [. . .] Different kinds of systems, with different mechanisms and under different forces, call for different explanations” (Bunge 1997, 439-440). “Although all mechanisms are specific (or substrate dependent), it is possible and desirable to group them into large classes on the strength of their similarities” (Bunge 1997, 450). Bunge offers the following definition of a social mechanism:
We define a social mechanism as a mechanism in a social system. Since every mechanism is a process in some system, a social mechanism is a process involving at least two agents engaged in forming, maintaining, transforming, or dismantling a social system. There are many types of social system: think, for example, of childless couples and extended families, streetcorner gangs and informal social networks, schools and churches, factories and supermarkets, economies and polities, and local governments and multinational blocs. Correspondingly, there is a large variety of social mechanisms (Bunge 1997, 447).

The social mechanisms at the centre of post-communist transformation are the major change mechanisms in the transformation of individual countries. However, we also need to pay special attention to transnational (regional, global) and subnational systems. Thus, for example, the European Union as a transnational system in its interaction with transforming countries (national systems), or the Russian regions as subnational systems interacting with the centre, are likely to be important elements of major change mechanisms. The concept of change mechanism should not be confused with the concept of system. “Note that our definition presupposes a distinction between system and mechanism: the latter is a process in a system. This distinction is familiar in natural science, where one is not expected to mistake, say, the cardiovascular system for the circulation of the blood or the brain with mental processes. But it is unusual in social studies . . . “ (Bunge 1997, 447). “Mechanism is to system as motion is to body, combination (or dissociation) to chemical compound, and thinking to brain” (Bunge 1997, 449).

One potential source of confusion is the fact that we are dealing with systemic change, so that the major social mechanisms in the transformation occur in systems that are themselves changing -- evolving, adapting, or collapsing. Describing fundamental systemic changes in terms of the rate of privatization or liberalization, for instance, is not the same as explanation in terms of major change mechanism. Rate or degree of privatization is an – often overrated and misinterpreted – indicator of systemic change. By contrast, a major change mechanism involves the concrete system within which this process is taking place (i.e. its particular composition, structure, and environment), and the actual outcome (new, hybrid, or collapsed system).

Thus, marketization refers to a set of major change mechanisms, market reforms are the designed elements in change mechanisms, and the economy is the system (more accurately: one of the systems) that is being changed and changing. In contrast to the voluntaristic and individualistic assumptions that figure prominently in much of the neoliberal transformation literature, the approach presented here does not equate change mechanisms with reform policies. In contrast to the structuralist assumptions that are assigned dominance in much of the critical and culturalist literature, this approach does not reduce change mechanisms to “deeper structural factors.” In the systemic view, “agency is both constrained and motivated by structure, and in turn the latter is maintained or altered by individual action. In other words, social mechanisms
reside neither in persons nor in their environment – they are part of the processes that unfold in or among social systems” (Bunge 1997, 448; emphasis added). This conception of social mechanisms also has significant implications for the fundamental problem of the role of social technology in systemic change.

**Between Social Science and Social Technology: Catalytic designs**

In much of the neoliberal market transition literature, a central assumption is that “the new system” can in fact be designed, since the major mechanisms that maintain a market economy are presumably known, and so are the mechanisms (i.e. reforms policies) to put them in place. The two – maintenance and creation of a market economy – are of course not the same. There may be somewhat more knowledge about maintaining established and relatively successful market economies in the West than about creating them under a variety of conditions in the rest of the world. Yet skepticism is called for with respect to the claim that both types of major mechanisms are fully or even sufficiently known. There is the ideological claim that a market system spontaneously creates socially desirable outcomes. In other words, the social mechanisms that make this particular type of economic system successful are said to be spontaneous as opposed to controlled, economic rather than political, decentralized rather than centralized, as well as intrinsically just (Hayek 1989). This ideological claim, based on empirically untested or untenable assumptions, entails the demand to design and establish an economic system in a controlled, political and centralized fashion that will henceforth maintain itself spontaneously, without the need for political intervention, and in a decentralized way. Describing these ideas in terms of social mechanisms brings out the paradoxical role that design plays in the neoliberal transition literature. Faith in the possibility of rationally designing and establishing a specific type of economic system, on the one hand, goes hand in hand with the deep conviction that once established, rational design should not be employed to alter the way the system works, on the other.

I take my own position between the two poles of the neoliberal paradox. I am at the same time more and less sanguine about the role of design in economic and social life. There is both spontaneity and design in most processes of social change and continuity. “Whereas some social systems and their corresponding mechanisms emerge more or less spontaneously, others are designed” (Bunge 1997, 452). Where designs do play an important role, the particular way in which they contribute to social change may contain different mixes of intended, unintended, and perverse effects (Hirschman 1992, Merton 1968, Ch. III). In order to advance our understanding of the actual role of design in post-communist transformation, I conceptualize designs as elements
Andreas Pickel, Between Social Science and Social Technology 19

in larger change mechanisms. In order to underscore this broader conception of design, I speak of catalytic design. (Using the term “catalytic” in its broad sense of an agent that stimulates or precipitates a reaction, development, or change.)

Catalytic design is not simply a policy blueprint or institutional template. It may contain that, but it is more (and that “more” is what determines how policy blueprints or institutional transfers work): it is the vision or ideological model; the shifts in political alliances – domestic and international -- it builds on or opens up; the potential for redefining state-society relations; the major ways in which society is and is not restructured in the process. It is also less, for even the attempt to faithfully implement a blueprint of a new order can never succeed fully (rational policy fallacy).

The catalytic design is an emergent property. As far as catalytic designs for systemic change are concerned, the state (more precisely: various state actors and institutions) is its major – though clearly not exclusive nor necessarily decisive – agent. This is why we need to pay particular attention to the type and role of the state in its global context. For example, for the Central-Eastern European states, EU integration is the centrepiece of their respective catalytic designs for postcommunist political-economic transformation. If we look for a “rational design” at the core of systemic change, it encompasses the broader historical and systemic context plus reform policies and politics (really: the “rational design” is our model of what is going on, i.e. our rational reconstruction). In this sense we describe and explain the “catalytic design” (i.e. model of change) as an emergent property, though clearly not as much of an historical accident as the original emergence of market society, and with a greatly more prominent role for human designers and designs.

Finally, I propose to look at the systemic context (domestic and international structures) plus the design (models, templates, and policies) very much as catalysts rather than as a full-fledged plan for systemic change. Catalysts in the sense that they provide only a set of conditions and forces within which processes of social and economic change occur ‘spontaneously’ (in the sense of unplanned, and to some extent unintended) – thus: catalytic design. Thus the same reform measure, change policy, institutional model or social technology may have different effects in different contexts (e.g. stabilization, privatization). Viewed in conventional terms of design, the policy is assumed to work unless there is something “wrong” in the political, economic, or cultural context in which it is “implemented.” From our alternative viewpoint, a rational design or set of reform policies should not be understood as a simple means to an end that works or doesn’t work. Rather, reform policies, like the general ideologies with which they are associated (e.g. neoliberalism, nationalism, anti-Communism, return-to-Europeism), should
instead be seen as potential catalysts for change. Whether or not they are, and of what kind, will depend on the nature of the “reactants” (i.e. the systemic problem context). This is a major point overlooked by conventional “voluntaristic” and “rationalistic” designs. This does not commit us to the radical structuralist position according to which individual decisions, events, policies or plans do not have a decisive impact on the course of change. But just as reduction to structure is unsatisfactory, so is overemphasis of agency and contingency. The mechanistic approach (see above) offers a response to this problem.

In contrast to a policy package such as the neoliberal reform strategy, the concept of catalytic design prominently includes what are usually implicit assumptions about local context, global environment, actors, and problem situation. In one sense, the claim is simple: by using a systemic view of reality, we create the preconditions for identifying most of the relevant change mechanisms. However, this should not be taken as an indication of a hyper-rationalistic design. At least as important as identifying the possibilities and conditions for rationally designed change is the systematic exploration of its limits and the search for catalytic principles (normative)\(^9\), catalytic mechanisms (empirical)\(^10\), and catalytic practices (applied)\(^11\) of change at different levels and in a variety of domains. Thus when we speak of catalytic designs with respect to a specific case, we attempt to identify (model) the central change mechanisms that catalyze (trigger, bring about, and guide) systemic transformation. Methodologically, we work with the tentative assumption that such models will have relevance for other similar situations, past, present and future, though to what extent this will be the case is likely to vary from fairly direct applicability to general insight or heuristic.

**Concluding Comment**

The above sketch of a social theoretical foundation for transformation studies has responded primarily to a set of philosophical problems – the relationship between social science and social technology, and the challenge of cross-disciplinary work. It has taken as its point of departure some fundamental ideas of Popper’s social philosophy, examined its strengths and weaknesses in the context of the problems at hand, and offered an alternative approach based on the philosophy of Bunge. Whether and to what extent this alternative is useful for post-communist transformation studies and related problems will be largely determined by theoretical and empirical work. The proof, as so often, is in the pudding.\(^12\)
NOTES

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1 Arguably, the entire “Third World development” experience could be considered as earlier instances of attempts at controlled, systemic change – though perhaps with the important caveat that “modernization” did not necessarily entail adoption of Western political and economic institutions. The same could be said about Japan in the nineteenth century and Turkey in the early twentieth century, as well as the experience of all late developers. As Gerschenkron (1962) has shown with respect to nineteenth-century European economic history, latecomers developed their own set of institutions specific to their local conditions rather than simply copying those of the advanced countries.

2 As borrowed from Roscoe Pound (1922, 99), as Popper (1966, Vol. 1, 210) himself acknowledges.

3 Nationalism, religious fundamentalism, environmentalism, and feminism are alternative, to some extent competing doctrines of social change, though none of these enjoys nearly the same powerful institutional and political support as neoliberalism.

4 As Mario Bunge (1998, 440) has pointed out, “there is a wedge between social science and social technology, namely ideology. This is unavoidable and not deplorable in itself, because technology is neither value-free nor morally neutral. There would be no problem with a pro-science and morally right ideology. The trouble is that most ideologies do not meet these conditions.”

5 Thus there is general decline in the political and symbolic attractiveness of neoliberalism as we move from West to East. It is highest in Central Eastern Europe and the Baltic states, more controversial in Southeastern Europe, highly controversial if not simply passe in Russia and the CIS, and anathema in China as well as in the geographic outlier, Cuba.

6 As Janine Wedel (1998) documents, Harvard economist Jeffrey Sachs, for example, advised not only the Polish reform government in 1990, but also appeared in the Polish media to promote the political project of radical transformation.

7 Primarily Anglo-Saxon (U.S), secondarily Western European, but very little from East Asia, arguably the most relevant cases for late integration into the capitalist world market.

8 Many of these ideas have been further developed by the leading German critical rationalist, Hans Albert (e.g. 1999a, 1978, 1976). With the exception of a recent English-language collection (Albert 1999b), most of his work is unfortunately not available in English.

9 Example of normative catalytic principles: Western models are best and should be copied; or, indigenous models are best.

10 Catalytic mechanisms: the central change mechanisms in a specific case.

11 Catalytic practices: rely on Western experts wherever possible; do without Western experts wherever possible; rhetorically and symbolically talk neoliberal, even if your goals are fundamentally different.

12 The author is currently coordinating a cross-regional comparative study of post-communist transformation, which is following the research program and framework outlined in this article. Support for this project from the Canadian Social Science and Humanities Research Council is gratefully acknowledged.

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