

Organizing Diversity: Evolutionary Theory, Network Analysis and Postsocialism

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GRABHER G. and STARK D. (1997) Organizing diversity: evolutionary theory, network analysis and postsocialism, *Reg. Studies* 31, 533–544. In contrast to the dominant transition framework that examines organizational forms in Eastern Europe according to the degree to which they conform to, or depart from the blueprints of already existing capitalisms, this paper examines the innovative character, born of necessity, in which actors in the postsocialist setting are restructuring by redefining and recombining resources. Instead of conceiving these recombinations as accidental aberrations, it explores their evolutionary potentials. Its starting premise is that the actual unit of entrepreneurship is not the isolated individual personality but the social networks that link firms and the actors within them. Drawing on recent developments in evolutionary theory, it cautions that although all-encompassing privatization and marketization might foster *adaptation* in the short run, the consequent loss of organizational diversity will impede *adaptability* in the long run.

Networks Evolutionary theory Entrepreneurship Corporate restructuring Regional development Postsocialism

GRABHER G. et STARK D. (1997) L'organisation de la diversité: la théorie évolutionniste, l'analyse de réseau et le post-socialisme, *Reg. Studies* 31, 533–544. Par rapport au cadre de transition dominante qui examine des formes d'organisation en Europe de l'Est en fonction de la mesure où elles s'adaptent ou s'écartent des schémas directeurs des capitalismes actuels, cet article examine le caractère innovateur, né par la force des choses, dans lequel les acteurs à l'époque post-socialiste restructurent en définissant et en combinant de façon différente les ressources. Au lieu de concevoir ces nouvelles combinaisons en tant qu'aberrations fortuites, il examine leur potentiel évolutionniste. Le point de départ c'est le fait que l'unité de l'esprit d'entreprise n'est pas l'individu mais plutôt les réseaux sociaux qui relient les entreprises et les acteurs en dedans. Puisant dans des développements récents dans le domaine de la théorie évolutionniste, il prévient qu'il en résultera une perte de diversité d'organisation qui empêchera à terme l'adaptation, bien que les politiques globales de la privatisation et du développement des économies de marché pourraient encourager l'adaptation à court terme.

Réseaux Théorie évolutionniste Esprit d'entreprise
Restructuration d'entreprise Aménagement du territoire
Post-socialisme

LESSONS FROM LABRADOR

Each evening during their hunting season, the Naskapi Indians of the Labrador Peninsula determined where they would look for game on the next day's hunt by holding a caribou shoulder bone over the fire.¹

GRABHER G. und STARK D. (1997) Die Organisation von Diversität: Evolutionstheorie, Netzwerkanalyse und Postsozialismus, *Reg. Studies* 31, 533–544. Die dominierende Transformationsliteratur beschränkt sich vor allem darauf, die osteuropäischen Organisationsformen nach dem Grad ihrer Übereinstimmung mit den vertrauten Blaupausen etablierter Kapitalismusvarianten zu bewerten. Im Gegensatz dazu untersucht dieser Beitrag den innovativen Charakter dieser – aus Not geborenen – postsozialistischen Organisationsformen, die von Akteuren durch die Redefinition und Rekombination von Ressourcen restrukturiert werden. Anstatt diese Rekombinationen als zufällige Abweichungen zu betrachten, erkundet dieser Artikel ihre evolutionären Potentiale. Er geht davon aus, daß Entrepreneurship nicht auf der Ebene isolierter Einzelpersonlichkeiten zu konzeptualisieren ist, sondern auf der Ebene der sozialen Netzwerke, die Unternehmen und Akteure miteinander verbinden. Aufbauend auf neueren Entwicklungen in der Evolutionstheorie verweist dieser Artikel darauf, daß eine umfassende Privatisierung und Durchsetzung von Marktprinzipien zwar kurzfristig die *Anpassung* erhöhen mag, allerdings der damit einhergehende Verlust an organisatorischer Diversität langfristig die *Anpassungsfähigkeit* beeinträchtigt.

Netzwerke Evolutionstheorie Entrepreneurship
Unternehmensreorganisation Regionalentwicklung
Postsozialismus

Examining the smoke deposits on the caribou bone, a *shaman* read for the hunting party the points of orientation of tomorrow's search. In this way, the Naskapi introduced a randomizing element to confound a short term rationality in which the one best way to find game would have been to look again tomorrow where

they had found game today. By following the daily divergent map of smoke on the caribou bone, they avoided locking in to early successes that, while taking them to game in the short run, would have depleted the caribou stock in that quadrant and reduced the likelihood of successful hunting in the long run. By breaking the link between future courses and past successes, the tradition of shoulder bone reading was an antidote to path dependence in the hunt.

Mainstream notions of the postsocialist 'transition' as the replacement of one set of economic institutions by another set of institutions of proven efficiency are plagued by similar problems of short term rationality that the Naskapi traditional practices mitigate. As the economist's variant of 'hunt tomorrow where we found game today', neoliberals recommend the adoption of a highly stylized version of the institutions of prices and property that have 'worked well in the West' (see, for example, BLANCHARD *et al.*, 1994). Economic efficiency will be maximized only through the rapid and all-encompassing implementation of privatization and marketization. We argue, by contrast, from an evolutionary perspective, that although such institutional homogenization might foster *adaptation* in the short run, the consequent loss of institutional diversity will impede *adaptability* in the long run. Limiting the search for effective institutions and organizational forms to the familiar Western quadrant of tried and proven arrangements locks in the postsocialist economies to *exploiting* known territory at the cost of forgetting (or never learning) the skills of *exploring* for new solutions.

With our Naskapi example we do not mean to suggest that policy makers in contemporary Eastern Europe should select institutions with a roll of the dice. For us, the lesson from Labrador is that institutional legacies that retard the quick pursuit of immediate successes can be important for keeping open alternative courses of action. Institutional friction preserves diversity; it sustains organizational routines that might later be recombined in new organizational forms. Resistance to change, in this sense, can foster change. Institutional legacies embody not only the persistence of the past but also resources for the future. Institutional friction that blocks transition to an already designated future keeps open a multiplicity of alternative paths to further exploration.

Our neoliberal colleagues would be quick to argue that such exploration is costly, inefficient and unnecessary. In their view, the alternative, evolutionary course of search seems an indulgent squandering of resources, avoidable by exploiting institutions with proven returns. Given limited resources, the economies of Eastern Europe would do better to be quick to the chase, to learn from the leaders instead of the lessons of Labrador.

Recent studies in evolutionary economics and organizational analysis suggest, by contrast, that organizations that learn too quickly sacrifice efficiency. ALLEN and MCGLADE (1987), for example, use the

behaviour of Nova Scotia fisherman to illustrate the possible trade-offs of exploiting old certainties and exploring new possibilities. Their model of these fishing fleets divides the fishermen into two classes: the rationalist 'Cartesians' who drop their nets only where the fish are known to be biting; and the risk-taking 'Stochasts' who discover the new schools of fish. In simulations where all the skippers are Stochasts the fleet is relatively unproductive, for knowledge of where the fish are biting is unutilized; but a purely Cartesian fleet locks in to the 'most likely' spot and quickly fishes it out. More efficient are the models that most closely mimic the actual behaviour of the Nova Scotia fishing fleets with their mix of Cartesian exploiters and Stochastic explorers. The purely Cartesian fleet in ALLEN and MCGLADE's, 1987, study illustrates that organizations that learn too quickly exploit at the expense of exploration thereby locking in to suboptimal routines and strategies (see also MARCH, 1991).

This essay counters the neoclassical prescriptions for the postsocialist economies with an alternative conception of development drawn from new insights in evolutionary theory and network analysis. These schools of analysis are not typically paired, and here we make the case that their combination provides fruitful insights for understanding the postsocialist transformations.

Our starting premise is that the proper analytic unit, because it is the actual economic unit, is not the isolated firm but networks that link firms and connect persons across them. Similarly, the unit of entrepreneurship is not the isolated individual but networks of actors. As such, our attention shifts from the attributes and motivations of individual personalities to the properties of the localities and networks in which entrepreneurial activity is reproduced. It follows that the economic unit to be restructured is not the isolated firm but networks of firms linking interdependent assets across formal organizational boundaries.² We shall also argue that networks are not only the units to be restructured but are also the agents to do restructuring. That is, in place of the dichotomously forced choice of restructuring directed by state agencies versus restructuring via market processes we explore the possibilities of alternative co-ordinating mechanisms governed neither by hierarchy nor by markets (POWELL, 1990; GRABHER, 1993; STARK and BRUSZT, 1995).

The concepts of *legacies*, *linkages* and *localities* serve as the organizing principles of this essay. As we make the case for incongruence and explore the possibilities that ambiguity can be a resource for economic action, the reader should be prepared for some dissonance between the conventional meanings of these terms and their usage here. In developing these themes, we shall discover processes and logics quite different from notions that come first to mind. As we have already alluded, we shall see that legacies are not simple residues of the past but can serve as resources for the future. Similarly, the more systematically we pursue the logic of linkages,

the more our analysis turns to the structural features produced by the absence of particular connections. And whereas 'localities' might evoke sites in which proximity shapes shared meanings, we examine localities as sites where the simultaneous presence of multiple logics (what we might think of as different 'species' of social action) yields complex ecologies of meaning.

LEGACIES

Fitness tests

In the neoliberal prescription for the postsocialist transition, the persistence of organizational forms and social relationships of the old state-socialist system signals an incomplete change, a manifest symptom of a half-hearted implementation of the envisaged new social order. Accordingly, legacies indicate institutional pathologies contaminated with the deficiencies of the old regime obstructing the process of transformation: the future cannot be realized because the past cannot be overcome. The legacies of state socialism block the promising road to free markets. Free markets, the prominent advocates of neoclassical economics incessantly repeat, are a synonym for efficiency. Notoriously suppressed during state socialism, competition in free markets guarantees that more efficient organizational forms will survive and that inefficient ones perish.

Ironically, while economists can still embrace the crude Darwinism of Spencer's 'survival of the fittest', contemporary biologists (see, for example, SMITH, 1984; GOULD and LEWONTIN, 1984; and the essays in DUPRÉ, 1987) have challenged the received evolutionary model arguing that evolution cannot simply be regarded as a one-dimensional process of optimization, a beneficent and unilinear journey from the lower to the higher form of organization, from the inferior to the superior. Natural selection does not yield the superlative fittest, only the comparatively and tolerably fit.

Evolution, in this sense, does not proceed along a single grand avenue toward perfection but along multiple paths which do not all lead to optimal change. That some developmental paths produce ineffective solutions and suboptimal outcomes is not an indication of evolutionary failure but a precondition for evolutionary selection: no variety, no evolution. Hence, the evolutionary process necessarily entails development through failure: 'imperfections are the primary proofs that evolution has occurred, since optimal designs erase all signposts of history' (GOULD, 1987, p. 14). This critique of the 'survival of the fittest' paradigm, offers an alternative evolutionary model for challenging the neoclassical assumptions of 'historical efficiency' in which survival implies efficiency and mere existence proves optimality (see HODGSON, 1993). The lesson to be drawn from evolutionary theory is that competition in free markets does not necessarily favour the more fit and more efficient form of organization: market competition is not an optimizer.

Fitness is not an absolute and invariant quantity. Rather, fitness depends on the environment, and the environment may change during the course of the selection process (CARROLL and HARRISON, 1994). Thus, even if the selected characteristics of an organizational form were the 'fittest', they would be so only in regard to a particular economic, political and cultural context; they would not be the fittest for a changing or a different context. In fact, the very fitness of an organizational form might, through various mechanisms, induce environmental changes that undermine their efficiency. It follows that organizational forms that are most fit for the 'transition' are quite likely to be suboptimal in the subsequently changed environment. In place of the search for the 'best' institutions to manage the transition, we might do better to reorient our analysis to identifying the types of organizational configurations that are better at search.

Evolutionary theory, moreover, turns our attention to how the future development of an economic system is affected by the path it has traced in the past. Once we reject the notion that 'from whatever starting point, the system will eventually gravitate to the same equilibrium', we are alerted to the possibilities that free markets might lock in economic development to a particular path that does not gravitate to the optimum (HODGSON, 1993, p. 204). Positive feedback can have negative effects. Increasing returns from learning effects and network externalities yield real immediate benefits that can preclude selection in the long run of the most efficient organizational form (ARTHUR, 1994; CARROLL and HARRISON, 1994). Once an economy is locked into a particular trajectory, the costs of shifting strategies outweigh the benefits of alternatives. This approach to economic history stresses the possibility that the very mechanisms that foster allocative efficiency might eventually lock in economic development to a path which is inefficient viewed dynamically. The mechanisms that are conducive for the synchronic adaptation of the economy to a specific environment may, at the same time, undermine an economy's diachronic adaptability (GRABHER, 1994).

The trade-off between allocative and dynamic efficiency constitutes a fundamental tension in the current transformation in Eastern Europe. MURRELL, 1991, argues from empirical data that state socialism was no less efficient in allocating resources than capitalist societies. Where it lagged was in dynamic efficiency, in its capacity to promote innovation. This imbalance has survived state socialism; current reform efforts seem preoccupied with removing institutional legacies for the sake of improving allocative efficiency. But a purging of organizational legacies to gain allocative efficiency can come at the cost of undermining dynamic efficiency (see also HANNAN, 1986).

We do not seek, of course, to reverse the evaluation of historical legacies from universally vicious to unequivocally virtuous. Instead we aim to highlight the dual

potential of legacies to block *and* to support transformation. It follows that instead of examining organizational forms in Eastern Europe according to the degree to which they conform to or depart from the ideal types of organizing production in Western style capitalism, this essay is concerned with variations and mutations emerging from the recombination of the inherited forms with emerging new ones. Instead of simply conceiving these recombinations as accidental aberrations, we explore their evolutionary potentials.

Compartmentalization: the organization of diversity

We thus shift from preoccupation with the efficiency of an individual organizational form to a concern for variety and diversity of forms central to the perspective of 'population thinking' (MAYR, 1984). As we shall see, the recombination of old organizational forms in the reorganization of the large state enterprises increases variety and diversity within the 'genetic pool' for the evolution of new organizational forms. For evolution to work there must always be a variety of forms from which to select: 'Selection is like a fire that consumes its own fuel . . . unless variation is renewed periodically, evolution would come to a stop almost at its inception' (LEWONTIN, 1982, p. 151). Diversity and variety allow evolution to follow, at the same time, different paths which are associated with different sets of organizational forms. When selection starts off not simply from a single trajectory but from a broad and diverse range of evolutionary alternatives, the risk decreases that local maximization results in an evolutionary dead end. Two or more evolutionary trajectories are thus able to cope with a broader array of unpredictable environmental changes than is the case with a single one.

In this perspective, different levels of efficiency associated with the different evolutionary paths are not symptoms of an inefficient selection mechanism. Rather, they are a precondition for improving overall efficiency since 'the rate of increase in fitness of any organism at any time is equal to its genetic variance in fitness at that time' (FISHER, 1930, p. 35). The merciless competition evoked by the crude Darwinism of the 'survival of the fittest' is, according to neo-Darwinism, mitigated by the biological principle of *compartmentalization*. Compartmentalization buffers the various sub-populations from each other and, hence, allows less efficient ones to co-exist with the currently most efficient ones without being exposed to selection immediately. Compartmentalization allows for an increasing diversification of the evolutionary selection. In a compartmentalized genetic pool, rare genes have a greater chance to influence subsequent evolution than is the case with a non-compartmentalized genetic pool. Although compartmentalization detracts from the fitness of the entire system, the sum of subsystems keeps ready a broader spectrum of answers to environmental challenges and, thus, ultimately arrives at an even higher level of fitness

(WEIZSÄCKER and WEIZSÄCKER, 1984, p. 188).

The principle of compartmentalization suggests that it is not simply the *diversity of organizations* but the *organization of diversity* that is relevant for the recombination of organizational forms in Eastern Europe. The reproduction of diversity depends on the ability of different levels of efficiency to coexist. On the one hand, evolution comes to a stop in cases where less efficient forms are eliminated through selection immediately: too little diversity, no evolution. On the other hand, however, the absence of any evolutionary selective comparison might turn diversity into 'noise' in which none of the organizational forms would be able to influence the direction of any evolutionary trajectory: too much diversity, likewise, no evolution.

This tension between too little diversity (emerging from a too low degree of compartmentalization) and too much diversity (resulting from a too high degree of compartmentalization) is exemplified by the analysis of the restructuring of the large state-owned corporations in Eastern Germany (GRABHER, 1996) and in Hungary (STARK, 1996). The resolute Eastern German approach led to a rapid dissolution of the old hegemonic form of the *Kombinat* and (through the establishment of Western branch plants) to an increasing diversity of organizational forms. But, as GRABHER, 1996, argues, this diversity might yet shrink again in the medium term future. The superior efficiency of the Western branch plants could lead – due to a lack of compartmentalization – to a further crowding out of other organizational forms located mainly within the indigenous small firm sector. The great disparity between the invading front runner and the indigenous laggards could produce a winner-takes-all situation that once again suppresses organizational diversity.

Seen from this perspective, the current Eastern German economy echoes the relative paucity of organizational forms of the old GDR-economy whereas the transformation of the large enterprises in contemporary Hungary builds on the previous decade of organizational experimentation that allowed not only for competition among *firms* but also for competition of *forms* (STARK, 1990). This competition of forms created a broad spectrum of variants in organizing production that increasingly overlapped in terms of personnel, supplier relations and property rights. With this blurring of boundaries came greater organizational diversity. In contrast to the more recent experience in Eastern Germany, moreover, this diversity of forms has not been challenged by the emergence of a vastly more efficient form. That is, there is greater diversity of organizational forms in Hungary, but there is also much less obvious disparity of 'fitness' among them. Whereas in Eastern Germany a preponderant disparity runs the danger of suppressing diversity, in Hungary a 'noisy' diversity runs the danger of suppressing selection with the result that less efficient forms might deprive more

efficient forms of resources to an extent that blocks the evolution of the entire economy.

Legacies for entrepreneurial careers

The notion of compartmentalization also figures implicitly in proposals for a 'two-track strategy' whereby resources are channelled into the indigenous small firm sector (the former second economy) while adopting more stringent administrative measures to harden the budget constraints of large firms remaining in the state sector. That strategy builds on the pioneering work of Gábor who was among the first to perceive and analyse the significance of the second economy. GÁBOR, 1979, 1986, demonstrated that the developmental potential of the second economy rested not in some spirit of individual entrepreneurship but in a *dynamic tension* between the twinned economies of late state socialism. Subsequent advocates of the two-track strategy such as KORNAI, 1990, 1992; MURRELL, 1992; and POZNANSKI, 1993, argued that this dynamic tension would evaporate if privatization and marketization would be attempted throughout the entire economy. That is, the transformative potential of the emerging marketized sector would dissipate if it was not buffered from the sphere of the large public enterprises. Attempts to privatize everything at once would lead to privatizing little at all. A strategy of non-compartmentalized privatization would yield firms that were private in name only. Similarly, expectations are not likely to change when those with new behaviours are scattered throughout the population. Actors are more likely to change their expectations when the probability of encountering a new behaviour trait is higher (BOYER and ORLEAN, 1992). Buffering the sub-population of market-oriented actors increases this likelihood; and compartmentalization (buffering that is not absolute but porous) increases the chances that the new patterns of behaviour can take hold in the broader population.

But the two-track strategy was nowhere adopted as official policy.³ Nor can we assume, in any case, that a compartmentalized strategy would have selected behavioural traits of market orientation. What we can do is to examine actual behaviour in the emergent small firm sector. Doing so, we see: (1) that the second economy has not necessarily promoted a dynamic capital accumulating stratum; and (2) that the second economy has not been the primary source of the new economic elite as successful entrepreneurs are likely to come from the ranks of the socialist cadre. Each illustrates the ambiguous legacy of state socialism.

First GÁBOR, 1996, for example, observes that the small firm sector in postsocialist Hungary is marked by fragmentation and 'over-tertialization'. Instead of finding small-scale proprietors growing into medium sized employers, GÁBOR, 1996, identifies an increasing tendency for small entrepreneurs to shun productive lines of business that involve higher investment intens-

ity. He traces these features, at least partially, to: economic preferences inherited from the second economy of the past regime including the income-maximizing, consumption orientation of households; aversion to long term business investment and risk-taking; the low appreciation of free time compared to income; and the poor tax morale.

Second, technocratic expertise acquired during state socialism provides an important source of entrepreneurship in the postsocialist period. As in advanced market economies, the elite in state socialism was an educated elite. It now appears, and not surprisingly so, that under postsocialism, education and entrepreneurship are closely linked. The legacy of socialism is that the former elite are well-endowed to convert the cultural capital of the education and training acquired in the old order to advance to prominent positions in the new (SZÉLENYI and SZÉLENYI, 1995). Empirical studies conducted in Hungary (RÓNA-TAS, 1994), the Czech Republic (BENÁČEK, 1996), and Eastern Germany (KOCH and THOMAS, 1996) are now providing evidence to support an argument that it is the common technocratic character of both party *and* entrepreneurial recruitment that is a main source of this continuity.

Taken together, these studies point to several legacies of state socialism in the field of entrepreneurial careers: whereas the old socialist hierarchies seem a launching pad for careers in the larger, legal firms of the emerging entrepreneurial sector, the heritage of the second economy pushes towards further fragmentation within the semi-legal sector of micro-firms.

LINKAGES

Loose coupling

In the predominant view, the implosion of state socialism has left behind an institutional vacuum and a social *tabula rasa* of atomized economic and political actors. Instead of atomization and paralysis, this essay examines the embeddedness of actors in social ties, whether official or informal. The relational approach adopted here starts not with the personal attributes of actors but with the networks of interaction that link actors (EMIRBAYER and GOODWIN, 1994). From this perspective, very strong and dense social networks facilitate the development of uniform subcultures and strong collective identities. But network analysis does not begin and end with social cohesion. A particularly dense and tightly coupled network (in the extreme, where every actor in the network has a direct tie to every other) might promote cohesiveness while hindering the ability to gain information and mobilize resources from the environment. Recent trends in network analysis posit an inverse relationship, in general, between the density/intensity of the coupling of network ties on the one hand and their openness to the outside environment on the other. Similarly, in

contrast to conventional cliquing models (e.g. 'who knows whom'), new research in the field is more likely to focus on absent ties in a network social space where actors lack direct connections. Research within this more robust relational analysis is now demonstrating that 'weak ties' (GRANOVETTER, 1973) indirectly connecting actors or bridging the 'structural holes' (BURT, 1992) that become obligatory 'passage points' (LATOURETTE, 1988) between relatively isolated groups of actors are crucial for the adaptability of networks.

The evolutionary advantages of loosely coupled networks were early appreciated and systematically differentiated by WEICK, 1976. First, a loosely coupled network is a good system for *localized* adaptation. If the elements in a system are loosely coupled, then any one element can adjust to and modify a local contingency without affecting the whole system. A second advantage is that loosely coupled networks preserve many independent sensing elements and therefore 'know' their environment better. Third, in loosely coupled networks where the identity and separateness of elements is preserved, the network can potentially retain a greater number of mutations and novel solutions than would be the case with a tightly coupled system.

Again, however, we are not claiming an unequivocally positive relationship between the loose coupling and the adaptability of a network. Although diversity and loose coupling might, on a structural level, support adaptability by allowing different levels of efficiency to coexist, they can also, on a cognitive level, result in a cacaphony of orientations, perceptions, goals and world-views that confounds even minimal cohesiveness. Such is the danger noted by some observers of the Eastern European transformation who identify the 'chaos' resulting from the multiplicity and ambiguity of orientations and perceptions as a major obstacle to future-oriented economic action. None the less we invite a tolerance of ambiguity. That tolerance is not an unqualified embrace but an explicit ambivalence: it acknowledges that ambiguity can be an asset even while it recognizes that these gains can come at the expense of accountability.

Aware that an excess of ambiguity can dissipate social cohesion, it is none the less alert to the possibilities that ambiguity can be a resource for credible commitments. Just as tolerance for ambiguity is regarded, on an individual level, as an attribute of a mature and robust personality, so here it is seen, on the system level, as a central cognitive precondition for adaptability. Similar to the ways that tolerance for different levels of efficiency enhances the evolutionary potentials of a network, so tolerance for ambiguous or even contradictory perceptions and goals facilitates the search for new answers to new questions. The communication of contradictions and conflicts, sparked by the ambiguity of goals, could act as a sort of an 'immune system' for a network (LUHMANN, 1986, p. 185). In a sense, tolerance for ambiguity constitutes the 'intelligence' of a network

reducing the chance that contradictory signals are suppressed in favour of a singular but distorted knowledge and an internally consistent but mistaken interpretation.

Loose coupling in entrepreneurial networks

Rather than being extinguished for the sake of the logical principle of *tertium non datur* (there is no third case), ambiguity can be deliberately reproduced in particular situations by the *tertius gaudens* (the third who benefits). Taken from the work of SIMMEL, 1923, pp. 154 and 232, the *tertius* role is instructive in the Eastern European transformation because it points to an ambiguity from which 'the third who benefits' leverages off a stable entrepreneurial position. In certain situations, emerging as the *tertius* depends on creating competition: 'Make simultaneous, contradictory demands explicit to the people posing them, and ask them to resolve their – now explicit – conflict' (BURT, 1992, p. 76). Entrepreneurship, in this perspective, emerges from *tertius* brokering contradiction and ambiguity between others: no ambiguity, no *tertius*.

As SEDAITSIS, 1996, analysis of the emergence of new market organizations in Russia suggests such a *tertius* strategy and the strategic utilization of ambiguity seems more easily practiced in loosely coupled networks than in tightly integrated ones. According to her study of the new commodity exchanges in Russia, exchanges organized around loosely coupled networks differ from tightly coupled networks in crucial aspects. Loosely coupled networks (with less density of direct ties among their founders) enjoy greater immediate returns on investment due to their greater manoeuvrability and more varied access to resources. They are able to serve market demand more directly and to exploit the lucrative opportunities in the disruption of established distribution patterns. With minimal constraints both internally and externally, they are relatively free to pursue *tertius* strategies. At the same time, however, their extraordinary diversity in turn provides little basis for social cohesion.

Commodity exchanges organized around the tightly-knit networks grounded in the legacies of past institutional arrangements, by contrast, inherit institutional legitimacy yet they suffer a limited profitability. SEDAITSIS, 1996, argues that the lower profitability of these tightly-knit networks is due less to the constricted range of talent of their personnel than to the structural incapacity of their networks to pursue the aggressive *tertius* strategy favoured by the loosely coupled networks. Moreover, for the tightly knit networks, limited outside interaction inhibits processes of learning and unlearning: 'Shared past histories constrain the range of future possibilities ... old ties limit organizational flexibility and maintain a 'segmented' system of circumscribed action and responsibility that limits the potential of management to respond creatively to the new environment and the problems it poses' (*ibid.*, p. 145).

Sedaitis' analysis of the Russian commodity exchanges thus marks an important departure from conventional approaches to entrepreneurship in two respects. It can be contrasted, first, to the research tradition that attributed entrepreneurship to the behavioural features of certain personality types, featured prominently, for example, in the early writings of SCHUMPETER, 1912, p. 137, who provided a rich source of iconographic portraits of entrepreneurs as 'whole-hearted fellows' (*ganz Kerle*) combining the genius of creative discovery with the courage of 'creative destruction'. For Sedaitis, entrepreneurship is not a function of an individual personality but of a social network. Second, her use of network concepts departs dramatically from a recent tendency to view network connections as the property of individuals. In that view, 'social capital' is a new individual-level variable that interacts with other assets ('human capital') in the process of status attainment or career mobility. Accordingly, researchers can now develop measures of the 'volume of network capital' in the possession of individual research subjects. However innovative in the field of mobility studies or the analysis of entrepreneurship, the addition of this new variable brings the notion of 'network' into the picture in a manner that neglects the relational dimension that is the fundamental insight of network analysis. In SEDAITIS', 1996, study, by contrast, our attention shifts from *networks as property* to the *properties of networks* as she demonstrates that the shape, structure and characteristics of different kinds of networks make possible different economic activities.

Asset ambiguity

If the legacy of old networks and the structure of new ties are important for determining the types of entrepreneurial activity in postsocialism, might they also figure prominently in the restructuring of large corporations? This is the question posed in recent studies by MCDERMOTT, 1996, and STARK, 1996, on the Czech Republic and Hungary respectively.

In Czechoslovakia during the 1970s and 1980s, under the umbrella of meso-level 'industrial associations', constituent suppliers and customers, managers and workers, state bank branches, firms and local party members formed alliances to gain privileges from the centre and created informal compacts of economic co-ordination to limit and adjust to the uncertainties of an economy of shortage. MCDERMOTT, 1996, argues that, over time, these informal networks became institutionalized, though not necessarily legally recognized, and became the frameworks to define and renegotiate claims to individual units of the large state-owned corporations. To the extent that these tightly coupled networks are also sources of mutual hold-up power among the actors, the discretion and the necessary knowledge to reorganize production are bound up in these relationships. Hence, the policy of the state to

end-run the potential hold-up powers of firm actors – through rapid privatization – would be 'one-legged' (*ibid.*).

McDermott demonstrates that, despite its neoliberal rhetoric, Vaclav Klaus' voucher privatization programme did not eliminate the ties that bind so much as rearrange them (see also BROM and ORENSTEIN, 1994; STARK and BRUSZT, 1995). The outcome is a web of connections through which a multiplicity of actors are renegotiating not simply contractual ties but their mutual claims on interdependent assets. Through that web, firms, banks, investment companies, local governments and parts of the state bureaucracy identify firms that should be saved, devise strategies for restructuring assets, bargain about the allocation of resources and renegotiate the very rules and governance institutions for resolving disputes among them.

The *Janus* face of networks also influences the Hungarian process of property transformation and corporatization, driven by key actors in the old formal and informal networks who constituted the best organized social group in Hungary during the last decades. As STARK, 1996, documents, managers of the large state-owned enterprises are breaking up their organizations – along divisional, plant or even workshop lines – into numerous satellite corporations. Although these newly incorporated entities with legal identities were nominally independent, they combined private, semi-private and state-property in a complex manner. Property shares in these satellite organizations are not limited to the founding enterprise but are also held by top and mid-level managers, professionals and other staff. In the typical pattern of this particular form of 'recombinant property', these private persons were joined in share ownership by other corporations and corporate satellites which were spinning around some other enterprises. At the same time, large enterprises are acquiring shares in each other, creating extensive inter-enterprise ownership networks. Like the ropes binding mountaineers on a treacherous face, these ties reduce risk, they buffer the networks from the uncertainty of the transformation shock, and they can facilitate innovation for some, even while retarding the selection process for many (MINER *et al.*, 1990; ICKES and RYTERMAN, 1994).

In contrast to the essentialist categories of private versus state property, these recombinant practices create networks of horizontal ties of cross-ownership intertwined with vertical ties of nested holdings in which the boundaries between state and private property are increasingly blurred. Recombinant property is not, however, a simple mixture of public and private; it is a hedging strategy that also blurs the boundaries of organizations themselves and blurs, as well, the boundedness of justificatory principles. In cases of extremely complex asset interdependence, it is not clear-cut property claims but an ambiguity of property claims that provides flexible adaptation. Such *asset ambiguity* should

not be interpreted, however, as the simple polar opposite of Williamson's 'asset specificity' for it occurs in a volatile environment where the state's paternalistic efforts at the centralized management of liabilities creates incentives for managers to employ a multiplicity of justificatory principles to acquire resources. To survive in such an environment, managers become equally skilled in the language of profitability for credit financing as in the syntax of eligibility for debt forgiveness. When they attempt to hold resources that can be justified by more than one legitimizing principle, they make *assets of ambiguity*.

The same opportunistic blurring of boundaries that leads to a recombination of assets and a decomposition of the large corporations also bears a social cost: it erodes (or, in the postsocialist case, retards) accountability. As STARK, 1996, demonstrates, the problem with the peculiarly diversified portfolios in the 'polyphonic discourse of worth that is postsocialism' is that actors can all too often easily and almost imperceptibly switch among the various positions they hold simultaneously in the coexisting moral economies. To be accountable according to many different principles becomes a means to be accountable to none. Unless we are willing to posit 'flexibility' as an over-riding value and a meta-legitimizing principle, we cannot escape the challenge that postsocialism poses, not uniquely but acutely, for our epoch: if networks are viable economic agents of permanently ongoing restructuring, how can we make networks (as a new kind of moral actor) accountable?

LOCALITIES

Locality as ecology

In the dominant view, localities are irrelevant in constructing transition strategies. When not centred squarely at the level of the individual firm, analysis of the postsocialist transformations typically focuses on policies and institutions at the level of the national economy such as monetary policy, legal frameworks for corporate governance, or regulatory institutions for banking and finance. Place, the problem of localities, is out of place in these perspectives.

In arguing that localities should be brought into focus as sites of economic transformation (see also GORZELAK, 1995; SMITH, 1995) we draw on the new economic sociology which demonstrates that globalization does not displace the properties of localities but makes them all the more salient. As greater market volatility shifts strategic action from economies of scale to economies of scope and then to economies of time (GEREFFI, 1994), local knowledge, local culture and local networks give shape to the new organizational forms of flexible specialization (see, for example, AMIN and THRIFT, 1994; SCOTT, 1996).

It was with the analysis of the industrial districts of

northern Italy that the potential of localities to contribute to economic development most dramatically entered the research literature in the 1980s. The stories of regional production systems concentrated in the region Emilia Romagna have typically been written as success stories of a coherent system of economic institutions whose compatibility makes for the decisive transaction-cost efficiency of regional co-operative networks.

But the story of the Italian industrial districts might also be read in a different light (GRABHER, 1994, pp. 67–78). The Italian textiles and clothing districts, in particular, are composed of an extremely broad and heterogenous spectrum of diverse institutions and organizational forms ranging from internationally-renowned design *ateliers* and technologically highly-advanced, medium sized firms at one pole to small artisanal firms and illegal homeworkers at the other. Instead of regarding this spectrum as a coherent set whose efficiency is based on the transaction cost savings gained through the compatibility of the various organizational forms, the evolutionary strengths of the industrial district might be based on the very incompatibility of these forms. In this view, not systemic coherence but organizational discrepancy is the effective evolutionary anti-body against hegemonic 'best practice solutions'. By preserving the richness of diverse organizational routines for the evolution of new organizational mutations, discrepancy increases the adaptability of the region.

The resistance against the economistic temptation to streamline,⁴ at least in the Italian industrial districts, seems not to be an entirely intentional product of institutional design. In these districts, the spatial proximity of closely knit co-operative networks in small neighbourhoods is seen as a major source of their transaction-cost efficiency (see, for example, PYKE and SENGENBERGER, 1992). From an evolutionary perspective, however, the transaction cost effects are less important than the fact that spatial proximity allows for a continuous exchange of resources, information and personnel across these diverse, even incompatible, forms of production. Whether or not proximity economizes on transaction costs, its long term benefit is to facilitate a cross-fertilization across disparate forms less likely if spatially dispersed. Like the Naskapi caribou ritual of our introduction, spatial proximity in the northern Italian districts acts as a sort of random generator disrupting the tendency toward transaction cost-efficient relations with compatible firms. In preventing hyper-efficient behaviour, spatial proximity does not dissolve incompatibility but enhances it.

Expressed in different terms, this view of industrial districts analyses localities as ecologies of diverse organizations (GRABHER, 1994, pp. 70–78). Localities are sites of interdependence of even greater complexity than the proprietary ambiguities of complementary and cospecialized assets across the boundaries of enterprises.

The interdependencies within localities are more complex because they entail ambiguities across different social logics, routines and practices involving not only business firms but political, religious, residential and family life. Because these logics cannot be reduced to each other or expressed in the equivalents of a common currency, localities are not simply compartmentalizing buffers separating subpopulations of the same species of organization but are complex ecologies of diverse 'species' of social ordering principles.

Entrepreneurs in localities: entrepreneurial localities

In Eastern Europe, the emerging localized governance structure based on horizontal rather than on the hierarchical co-ordination of the past can contribute to the mobilization of resources in the formation of new entrepreneurial units. In their study of a small community near Budapest, KUCZI and MAKÓ, 1996, indicate how local network ties reduce uncertainties and risks facing start-up ventures. That is, network linkages act as buffers retarding selection and reducing the 'liability of newness' – a problem facing new firms in any economy but particularly acute in the volatile uncertainties of postsocialist economic transformation. KUCZI and MAKÓ, 1996, point to trust-based relations where patterns of economic exchange are interwoven with ties of kinship and friendship. In the local community they studied, new contractual arrangements often follow informal relations among actors with shared experiences in the recent past whether at the locally dominant state enterprise or through joint participation in the second economy. In such conditions, trust reduces the risks involved in the selection of suppliers, business partners and employees. Kuczi and Makó conclude that among these local networks, economic transactions are regulated by 'relational contracting' in which the stronger partner does not exploit situations where the weaker partner is vulnerable and where maintenance of the tie itself is a value that regulates exchanges and moderates disputes.

The networks of small-scale proprietors in Kuczi and Makó's study bear some resemblance, at first glance, with the Northern Italian industrial districts – for example, their preference for localized business contacts in the absence of a strong state, and the importance of traditional relations in contract enforcement. But the traditional elements are only a part of the success story of the Northern Italian districts. And although Kuczi and Makó indicate that an entrepreneurs' club and a local foundation were in the planning stages at the time of their study, the community they examined showed few signs of the highly organized craft associations, trade unions and administratively competent local authorities so important in the northern Italian districts.

Moreover, there are reasons to question the causal connection between traditional ties, relations of trust and local development. For GÀBOR, 1996, the liabili-

ties of traditionalism are likely to outweigh the benefits. First, to the extent that second economy producers continue their old habits of making market transactions only where social relations have already preceded, they might be disadvantaged in establishing business ties where arms-length transactions are entirely appropriate (even to the point of foregoing advertising, for example). Second, in the absence of strong civic associations (blocked under communism, but thriving in Italy), Gàbor is unwilling to assume that the legacy of the proximate ties of the second economy are relations of trust. It might just as well be that the most salient 'shared experiences' from the past are relations of mistrust and that new exchanges based on them will bear that stamp (KEMÉNY, 1996). In slightly different terms, instead of the Northern Italian route to prosperity, for some postsocialist economies the Road to Europe might run through Sicily.

Finally, what if the direction of causality does not run from local identities to co-operative development strategies but the reverse? Co-operative relations, SABEL, 1992, argued, are not based on primordial loyalties but on 'studied trust'. One of the clues to these processes is that Sabel found co-operative regional development projects in districts whose recent histories were marked by intense conflicts. Yet contemporary accounts by actors in these same localities repeatedly refer to harmonious pasts as history is reconstructed in line with the present. Thus, instead of shared identities giving rise to social relations of trust, this work suggests that co-operative configurations reshape identities that can then be shared. Although historically inaccurate, these identities are no less real in their effects as templates for current co-operative action.

In this alternative view, localities contribute to innovative and co-operative development strategies not because they are a *locus* of shared meanings but because they are sites of interdependence among different social groups and different social logics. Because localities cannot be indifferent to this interdependence, we can say that localities are means for organizing diversity – seen, for example, in the notion of actors manoeuvring not only through an ecology of organizations but through an ecology of ordering principles (STARK, 1996) and in MCDERMOTT's, 1996, analysis of how localities are the sites for complex negotiations among actors whose claims are not only competing but also very heterogeneous in character.

A similar conception of localities as ecologies of social logics informs the study of regional development in Poland by HAUSNER *et al.*, 1996. Hausner and his colleagues examined economic development in nine provinces in south-eastern Poland in a study that takes the locality not only as the unit of observation but also as the unit of analysis. In seeking to explain why economic development takes off in some regions and not others, they turn from the properties of individuals to the properties (characteristics, qualities) of the local-

ities themselves. In contrast to KUCZI and MAKÓ, 1996, who provide such a rich community study of *entrepreneurs in localities*, HAUSNER *et al.*, 1996, might be seen to study *entrepreneurial localities*. Hausner *et al.* conclude that the best regional development strategies are not led by yet another administrative or quasi-governmental unit in the form of intermediate-level 'regional development authorities'. Instead, a major factor explaining the differences in regional restructuring was the presence of networks linking diverse types of organizations.

CONCLUSION

In the opening pages of *The Economic Institutions of Capitalism*, WILLIAMSON, 1985, pp. 18–19, observes that 'Transaction costs are the economic equivalent of friction in physical systems'. WILLIAMSON's, 1985, 1993, contribution to economics has been to develop an analytic strategy to understand 'friction' in economic transactions, with the aim of guiding policies and promoting institutions that minimize these transaction costs. This paper can be seen as bringing the analysis of friction into the study of the transforming postsocialist economies. It differs from Williamson's project, however, in two fundamental ways. First, the friction examined is not that of economic exchanges *per se* but the friction of economic restructuring: that is, whereas Williamson turns our attention to *transaction* costs, we are concerned here with *transformation* costs. In fact, to the extent that institutionalization is a kind of 'investment in forms' (THÉVENOT, 1985) that reduces the costs of future transactions, such transformation costs might be conceptualized as sunk transaction costs. Second, unlike the Williamsonian tendency to assess as superior those forms that minimize friction, the essay here sees a positive role for economic friction. To be sure, we are not advocating higher transformation costs or seeking to promote institutions with steep transaction costs; but it does seem to us useful to question the notion of a 'smooth' or frictionless 'transition'.

That position begins from the insight that some friction may be essential for the functioning of markets by undermining positive feedback loops that can lead to lock-in. Such was the lesson drawn by the Federal Securities and Exchange Commission in the aftermath of the 508-point crash of the New York Stock Exchange on 19 October 1987. As trading in some fields was approaching an almost frictionless character with advances in computerized 'program trading', the Securities and Exchange commissioners saw a danger that some markets could pass from volatility to chaos. To maintain orderly markets, the commissioners designed a set of 'collars' that trigger temporary halts in computerized index arbitrage when the Dow skips more than a certain number of points in either direction. Like the Naskapi caribou shoulder bone that

disrupts the negative effects of positive feedback, these so-called circuit breakers bring time, and hence friction, back into the exchange (see, for example, PETRUNO, 1994).

Our aim in this essay has been to begin the analysis of the circuit breakers that bring friction to the post-socialist transformations. Institutional legacies produce the friction that grinds against a smooth transition but preserves diversity for future recombinant strategies. Interenterprise linkages buffer firms and retard selection, but the redundant relations of loosely coupled networks produce the friction of ambiguity that facilitates entrepreneurial strategies. And the multiple ordering principles of localities produce the friction that inhibits too-simple harmonizations but yields more complex ecologies that are the basis for regional development strategies. With the concepts of compartmentalization, asset ambiguity and local ecologies of meaning, we can proceed to analyse how actors reconfigure legacies, linkages and localities to forge pathways from state socialism.

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NOTES

1. This account is drawn from WEICK, 1977, p. 45.
2. To be sure, shifting the level of analysis from isolated firms to networks does not imply that individual firms are conceived as homogenous actors. On the contrary, as we shall demonstrate later, networks comprise a broad and heterogenous spectrum of actors all of whom exert different levels of control and power. In this sense, we do not intend to characterize networks in terms of concord and harmonious collaboration among equals. Rather, in following HAKANSSON and JOHANSON, 1993, p. 48, we regard power as a functional element of networks: 'In contrast to the market model, in which power is seen as some kind of imperfection, the network model views power as a necessary ingredient in exploiting interdependencies'.
3. A plausible argument might be made that, despite official rhetoric, Poland's *de facto* policies came closest to the two-track strategy.
4. The economic temptation to streamline grows stronger with increasing imbalances of power within the network. In other words, the more powerful individual firms are *vis-à-vis* other firms in the network, the more they tend to rationalize network ties according to their own needs. However, to the same extent this rationalization increases the transaction cost efficiency within the network, it might undermine the network's adaptive capacities by reducing the diversity of organizational forms. Such counterproductive impacts of pronounced imbalances of power within a network have, for example, been elaborated in research on Baden-Württemberg (see HERRIGEL, 1993; COOKE *et al.*, 1993).

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