Новые тексты

VR В январе 2000 г. на конференции "Экономическая социология на пороге третьего тысячетелетия" Дэвид Старк выступил с докладом о проблемах гетерархии. Первоначальная версия его статьи была доступна на сайте МВШСЭН среди прочих текстов, представленных на конференцию. Однако работа еще не была завершена, в тексте и библиографии было изрядное количество пробелов, не хватало рисунков. В данном выпуске мы публикуем полную законченную версию нового текста Дэвида Старка. Рисунки содержатся в отдельном файле *Приложения 1* к данному выпуску журнала.

Ambiguous Assets for Uncertain Environments: Heterarchy in Postsocialist Firms*

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Introduction

I have a tin can on my desk that I bought in Budapest in the autumn of 1989. It's considerably smaller than your standard tuna can and extremely light in weight. If you tap your fingernail on it, it gives a hollow ring. But the label, complete with a universal bar code, announces in bold letters that, in fact, it's not empty: “Kommunizmus Utolso Lehelete” – “The Last Breath of Communism.”

If I were so inclined, I could take my tin can as a facile metaphor for the transition in Eastern Europe. The last breath of communism marketed by a clever entrepreneur represents the irrepressible urge to truck and barter released by the fresh winds of the free market. Exhale communism, inhale capitalism.

But the conditions under which my tin can was actually manufactured carry another story: It was not produced in the garage workshop of a petty entrepreneur but right in the heart of a state-owned enterprise by a workteam which, since 1982, had been taking advantage of legislation that allowed employees of socialist firms to form "intra-enterprise partnerships." Like many thousands of such intrapreneurial partnerships, this group of thirty workers in a large factory had

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been running factory equipment on the "off-hours" and on weekends, subcontracting to the parent enterprise and getting orders from outside firms. The limited batch run of "The Last Breath of Communism" was a good joke, but the venture had been a serious one.

The internal subcontracting partnerships of the 1980s were a curious mixture of public property and private gain. As they blurred organizational boundaries, the partnerships were a form of organizational hedging: managers gained flexibility within the terms of state property, and workers gained higher incomes without losing the benefits of employment in the socialist sector. Within the subcontracting units, the partners allocated earnings and coordinated the production process through a mixture of evaluative principles from the logics of markets, redistribution, and reciprocity.[1]

Similar practices of organizational hedging, resulting in the blurring of public and private and the coexistence of multiple justificatory principles, characterize the bricolage of recombinant processes that are a key feature of the current postsocialist period.

The unopened tin can on my desk thus points to the emptiness of the toggle-switch theory of "market transition" that posits public ownership and state subsidies on one side and private property and markets on the other. And it signals a continuity of recombinatory practices in the reportoire of organizational innovation for actors at the enterprise level.

This paper examines the organizational strategies and the resulting structural features of East European firms in response to the extraordinary uncertainties of systemic transformation following the upheavals of 1989. My starting premise is that postsocialist Eastern Europe is a genuine social laboratory, not simply because researchers can use it to test competing theories, but because people there are actively experimenting with new organizational forms. Unlike scientists, their localized experiments are not "by design," nor should they be. The attempt to create and manage an entire economy by design was the colossal Leninist failure, and efforts to create capitalism by design would do well to learn from those mistakes. Instead, their experimentation is more like "bricolage": making do with what is available. But if they use existing institutional materials that are close at hand, they are not for that reason condemned to mimic the old. As Joseph Schumpeter (1934), Harrison White (1993), and biologists Francois Jacob (1977), Edgar Morin (1974), and John Holland (1992) have shown in very different contexts, combining old building blocks is one means to innovate: innovation through recombination.

Innovation in the postsocialist setting, it would seem, should be directed to adaptation, as firms adapt to the new market environment and national economies adapt to global markets. Without questioning the need for major restructuring, in the opening section of the paper, I argue that preoccupation with short term adaptation can hinder long term adaptability. In making that argument, I draw on the concept of "lock-in," the process whereby early successes can pave a path for further investments of new resources that eventually lock in to suboptimal outcomes. But must organizations and systems accept this fate? Are there organizational forms that are better configured to learn from the environment? Such

[1] The partnership form was an organizational innovation that modified, for industry, organizational forms transplanted from agricultural cooperatives during the 1970s – a set of practices themselves borrowed from the "household plots" that had developed on state farms starting already with the demise of Stalinism in the late 1950s. For details on the politics of the "second economy," its relationship to the partnerships, and their functioning inside the socialist firm, see Stark, 1989. For a case study of the multiple regimes of worth intertwined in the internal dynamics of a single partnership followed over a five-year time frame, see Stark, 1990.

organizations would need practices that recognize (re-cognize) new resources in an ongoing reconfiguration of organizational assets.

These challenges are hardly unique to the postsocialist transformations. Therefore, the subsequent section of the chapter makes explicit my assumption that the term “transforming economies” applies no less to the societies of North America and Western Europe than to those of Eastern Europe and the former Soviet Union. Firms in both types of economies now face extraordinary uncertainties, caused by the rapidity of technological change or the extreme volatility of markets in the former, and shaped by political and institutional uncertainties in the latter. The response to these uncertainties is an emergent, self-organizing form that I call *heterarchy*. In elaborating its features, I point to processes of lateral or distributed authority and explore how organizations can benefit from the active rivalry of competing belief systems.

Having outlined the characteristics of heterarchical forms, I then focus on the specific challenges facing the postsocialist economies with the new uncertainties of international trade, the new uncertainties of reading market signals, and the new uncertainties of the simultaneous extension of property rights and citizenship rights. In the subsequent section, I describe in detail the recombinant practices of postsocialist firms[2] and the network properties to which they give rise focusing on Hungary and the Czech Republic, with reference to several other postsocialist cases. By exploring two cases in depth, we gain an appreciation of some variation within the family resemblance of an emerging East European capitalism. In these subsections I explicate recent Hungarian developments, chart their Czech counterparts, account for differences in broad network structures across the two cases, and give the reader a sense of the peculiar form of "portfolio management" that can be seen in contemporary postsocialism. The paper concludes with a discussion of the problems of accountability that accompany the relentless pursuit of flexibility.

The Organization of Diversity

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.[3] Examining the smoke deposits on the caribou bone, a shaman read for the hunting party the points of orientation of the next day'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 seem to have been to look again tomorrow where they had found game today. By following the divergent daily maps of smoke on the caribou bone, they avoided locking in to early successes that, while taking them to game in the short run, would in the long run have depleted the caribou stock in that quadrant and reduced the likelihood of successful hunting. 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 practices mitigated. As the policy variant of "hunt tomorrow where we found game today," neoliberal advisors recommend the adoption of a highly stylized version of the institutions of prices and property that have "worked well in the West."

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[2] My analysis focuses on postsocialist firms (typically, large firms that already existed in the socialist period). An analysis of "the firm in postsocialist economies" would be a much broader study encompassing new private start-ups, small and medium size firms, and the subsidiaries and greenfield investments of foreign multinationals.

[3] This account is drawn from Weick, 1977, p. 45.

Economic efficiency will be maximized, they argue, only through the rapid and all-encompassing implementation of privatization and marketization. I argue here, by contrast, 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 (see Grabher 1997). Limiting the search for effective institutions and organizational forms to the familiar Western hunting ground 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.

Recent studies in evolutionary economics and organizational analysis suggest that organizations that learn too quickly sacrifice efficiency. Allen and McGlade (1987), for example, use the behavior of Nova Scotia fishermen 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, because 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, like the actual behavior of the Nova Scotia fishing fleets, mix Cartesian exploiters and Stochastic explorers.

James March's (1991) simulation in "Exploitation and Exploration in Organizational Learning" yields similar results: he finds that interacting collections of smart learners frequently underperform interactions of smart and dumb. Organizations that learn too quickly *exploit* at the expense of *exploration*, thereby locking in to suboptimal routines and strategies. The purely Cartesian fleet in Allen and McGlade's study, like the organizations of homogeneously smart learners in March's simulations, illustrate the potential dangers of positive feedback and the pitfalls of tight coupling. Like infantry officers who instructed drummers to disrupt the cadence of marching solders while they are crossing bridges, lest the resonance of uniformly marching feet bring calamity, I draw the lesson that dissonance contributes to organizational learning and economic evolution.

Restated in the language of the new economics of adaptive systems (Arthur, 1994), the problem for any transforming economy is that the very mechanisms that foster allocative efficiency might eventually lock development in to a path that is inefficient, viewed dynamically. Within this framework, our attention turns from a preoccupation with adaptation to a concern about adaptability, shifting from the problem of how to improve the immediate “fit” with a new economic environment, to the problem of how to reshape the organizational structure to enhance its ability to respond to unpredictable future changes in the environment (Grabher 1997).

Sociologists within the tradition of Organizational Ecology have a ready answer to this problem. At the level of the economic system, adaptability is promoted by the *diversity of organizations*: a system with a greater variety of organizational forms (a more diverse organizational "gene pool") has a higher probability of having in hand some solution that is satisfactory under changed environmental conditions (Hannan, 1986:85). From that viewpoint, the problem of socialism was not only that it lacked a selection mechanism (firms were not allowed to fail), but also that almost all economic resources were locked into one organizational form: the large state-owned enterprise. That form was formidable in achieving industrialization; but lacking capacity for innovation, it failed woefully in the subsequent competition with the West. Similarly, the problem in the current period of transformation is that “success” that is achieved during the

transition through forced homogenization towards the privately held corporation might suppress organizational diversity, thereby impeding adaptability in the next round of global competition.[4]

But where do new organizational forms come from? Understanding organizational change as taking place almost exclusively through the deaths and births of organizations, the organizational ecology perspective downplays organizational learning and neglects the possibilities of organizational innovations that result from the recombinations of existing forms.[5]

Because I put organizational innovation front and center, I argue that, in addition to the diversity of organizations within a population, adaptability is promoted by the *organization of diversity*[6] within an enterprise. Organizational diversity is most likely to yield its fullest evolutionary potential when different organizational principles co-exist in an active rivalry within the firm.[7] By rivalry, I do not refer to competing camps and factions, but to co-existing logics and frames of action. The organization of diversity is an active and sustained engagement in which there is more than one way to organize, label, interpret, and evaluate the same or similar activity. Rivalry fosters cross-fertilization.[8] It increases the possibilities of long-term adaptability by better search, "better," not because it is more consistent or elegant or coherent, but precisely because the complexity that it promotes and the lack of simple coherence that it tolerates increase the diversity of options. The challenge of the organization of diversity is to find solutions that

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[4] Diversity and variety allow evolution to follow at the same time different paths which are associated with different sets of organizational forms, thus reducing the risk that local maximization results in an evolutionary dead end. Two or more trajectories are able to cope with a broader array of unpredictable environmental changes than is the case with a single one. The reproduction of diversity depends on the ability of different levels of efficiency to co-exist. 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 (Grabher and Stark, 1997; Lewontin 1982). The point at which organizational diversity in economic systems is too little or too much remains a question open for empirical, comparative research.

[5] Stated simply (and thus at the risk of misunderstanding, if not caricature), despite all its (appropriately cautious and always distanced) adoption of biological metaphors, organizational ecology lacks sex. That is, it is relatively infrequent in the population ecology of organizations literature that we find cross-fertilization, mixing, or recombinations of "genetic" organizational materials.

[6] "The sphere of complexity is that of organized diversity, of the organization of diversity." Morin, 1974: 558.

[7] This shift from a preoccupation with variation within a population of organizations (characteristic of organizational ecology) to attention to the organization of diversity inside firms is broadly comparable to the difference between population biology and new work in computational biology on the origins of organization. "In contrast to the traditional approach, a constructive dynamical system specifies the interactions among objects not externally, but rather internally to the objects as a function of their structure….A self-maintaining system is one which continuously regenerates itself by transformations internal to the system" (Fontana and Buss, 1993: 3). For a cogent discussion of the evolution of *variability* and genetic control of genotype-phenotype mapping, see Wagner and Altenberg (1996).

[8] "Recombination plays a key role in the discovery process, generating plausible new rules from parts of tested rules" (Holland, 1992:26). "Novelties come from previously unseen association of old material. To create is to recombine" (Jacob, 1977: 1163). Or, in Harrison White's (1993) terminology, "values mate to change."

promote constructive organizational reflexivity, or the ability to redefine and recombine resources. I call the emergent organizational forms with these properties *heterarchies*.

Heterarchy

Heterarchy represents a new mode of organizing that is neither market nor hierarchy: whereas hierarchies involve relations of *dependence* and markets involve relations of *independence*, heterarchies involve relations of *interdependence*. [9]As the term suggests, heterarchies are characterized by minimal hierarchy and by organizational heterogeneity, a pair of concepts that I elaborate below, drawing on studies of collaborative practices in high tech Western firms and my own observations in interactive media firms in New York City (Stark 1999). Subsequent sections further specify the applicability of the heterarchy concept in the postsocialist cases.

Heterarchy's twinned features are a response to the increasing complexity of the firm's strategy horizons (Lane and Maxfield, 1996) or of its "fitness landscape" (Kauffman 1993). In relentlessly changing organizations where, at the extreme, there is uncertainty even about what product the firm will be producing in the near future, the strategy horizon of the firm is unpredictable and its fitness landscape is rugged.[10] To cope with these uncertainties, instead of concentrating its resources for strategic planning among a narrow set of senior executives or delegating that function to a specialized department, firms may undergo a radical decentralization in which virtually every unit becomes engaged in innovation. That is, in place of specialized search routines in which some departments are dedicated to exploration, while others are confined to exploiting existing knowledge, the functions of exploration are generalized throughout the organization. The search for new markets, for example, is no longer the sole province of the marketing department, if units responsible for purchase and supply are also scouting the possibilities for qualitatively new inputs that can open up new product lines.

These developments increase interdependencies between divisions, departments, and work teams within the firm. But because of the greater complexity of these feedback loops, coordination cannot be engineered, controlled, or managed hierarchically. The results of interdependence are to increase the autonomy of work units from central management. Yet at the same time, more complex interdependence heightens the need for fine-grained coordination across the increasingly autonomous units.

These pressures are magnified by dramatic changes in the sequencing of activities within production relations. As product cycles shorten from years to months, the race to new markets

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[9] As a more general process, heterarchy refers to a process in which a given element – a statement, a deal, an identity, an organizational building block, a sequence of genetic code, a sequence of computer code, a sequence of legal code – is simultaneously expressed in multiple cross-cutting networks. My discussion here focuses on heterarchy as an organizational form. While this paper was going to press, Eleanor Westney pointed me to a fascinating paper by Hedlund (1993) who employs the term in an analysis of multinational corporations.

[10] A smooth fitness landscape is highly regular and single peaked, reflecting a single optimal solution possessing a higher fitness value than any other potential solution. A more complex or "rugged" fitness landscape, by contrast, is not amenable to linear programming models (e.g., lower unit costs through economies of scale) because the topography is jagged and irregular, with multiple peaks corresponding to multiple optimal solutions. On the use of genetic algorithms designed to explore initially unpromising paths and thereby avoid the danger of "climbing to the nearest peak" which might simply be the highest point in a valley surrounded by yet higher peaks, see Holland (1992). On adaptation in rugged fitness landscapes, see Kauffman (1989).

calls into question the strict sequencing of design and execution. Because of strong first-mover advantages, in which the first actor to introduce a new product (especially one that establishes a new industry standard), captures inordinate market share by reaping increasing returns, firms that wait to begin production until design is completed will be penalized in competition. Like the production of “B movies” in which filming begins before the script is completed, successful strategies integrate conception and execution, with significant aspects of the production process beginning even before design is finalized.

Production relations are even more radically altered in processes analyzed by Sabel and Dorf (1998) as *simultaneous engineering*. Conventional design is sequential, with subsystems that are presumed to be central designed in detail first, setting the boundary conditions for the design of lower-ranking components. In simultaneous engineering, by contrast, separate project teams develop all the subsystems concurrently. In such concurrent design, the various project teams engage in an ongoing mutual monitoring, as innovations produce multiple, sometimes competing, proposals for improving the overall design.

Thus, increasingly rugged fitness landscapes yield increasingly complex interdependencies that in turn yield increasingly complex coordination challenges. Where search is no longer departmentalized but is instead generalized and distributed throughout the organization, and where design is no longer compartmentalized but deliberated and distributed throughout the production process, the solution is *distributed authority* (Powell, 1996).

Under circumstances of simultaneous engineering where the very parameters of a project are subject to deliberation and change across units, authority is no longer delegated vertically but rather emerges laterally. As one symptom of these changes, managers socialized in an earlier regime frequently express their puzzlement to researchers: "There’s one thing I can’t figure out. Who’s my boss?" Under conditions of distributed authority, managers might still "report to" their superiors; but increasingly, they are accountable to other work teams. Success at simultaneous engineering thus depends on learning by mutual monitoring.

The interdependencies that result from attempts to cope with rugged fitness landscapes are only inadequately captured in concepts of "matrix organizations" or in the fads such as treating the firm as a set of "internal markets" according to which every unit should regard every other unit in the firm as its "customers." These conceptions are inadequate because they take the boundaries of the firm and the boundaries of its internal units as given parameters.

First, as Walter Powell (1990, 1996, and Chapter XX in this volume) and others show, the boundaries of the firm, especially those in fast-breaking sectors, are criss-crossed by dense ties of interlocking ownership (Kogut et al 1992) and complex patterns of strategic alliances. Where the environment is most volatile and uncertain, the real unit of economic action is increasingly not the isolated firm but networks of firms. As with the networks linking mental representations and physical artifacts in “distributed cognition” (Hutchins 1995), networks of strategic alliances create opportunities for distributed intelligence across the boundaries of firms.

Second, as it shifts from search routines to a situation in which search is generalized, the heterarchical firm is redrawing internal boundaries, regrouping assets, and perpetually reinventing itself. Under circumstances of rapid technological change and volatility of products and markets, it seems there is no one best solution. If one could be rationally chosen and resources devoted to it alone, the benefits of its fleeting superiority would not compensate for the costs of subsequent missed opportunities. Because managers hedge against these uncertainties, the outcomes are hybrid forms (Sabel, 1990). Good managers do not simply commit themselves to the array that keeps the most options open; instead, they create an

organizational space open to the perpetual redefinition of what might constitute an option. Rather than a rational choice among a set of known options, we find practical action fluidly redefining what the options might be. Management becomes the art of facilitating organizations that can reorganize themselves.

The challenge of the modern firm, whether it be a postsocialist firm coping with the uncertainties of system change or a digital technologies firm coping with unpredictable strategy horizons, is the challenge of building organizations that are capable of learning. Flexibility requires an ability to redefine and recombine assets: in short, a pragmatic reflexivity.

This capacity for self-redefinition is grounded in the organizational heterogeneity that characterizes heterarchies. Heterarchies are *complex* adaptive systems because they interweave a multiplicity of organizing principles. The new organizational forms are heterarchical not only because they have flattened hierarchy, but also because they are the sites of competing and coexisting value systems. The greater interdependence of increasingly autonomous work teams results in a proliferation of performance criteria. Distributed authority not only implies that units will be accountable to each other, but also that each will be held to accountings in multiple registers. The challenge of a new media firm, for example, is to create a sufficiently common culture to facilitate communication among the designers, business strategists, and technologists that make up interdisciplinary teams – without suppressing the distinctive identities of each.[11] A robust, lateral collaboration flattens hierarchy without flattening diversity. Heterarchies create wealth by inviting more than one way of evaluating worth.

Heterarchies are organizations with multiple worldviews and belief systems such that products, processes, and properties carry multiple "tags" or interpretations (Clark 1999; Clippinger 1999). Success in rugged fitness landscapes requires an extended organizational reflexivity that sustains rather than stifles this complexity. Because resources are not fixed in one system of interpretation but can exist in several, heterarchies make assets of ambiguity.[12]

This aspect of heterarchy builds on Frank Knight's (1921) distinction between risk, where the distribution of outcomes can be expressed in probablistic terms, and uncertainty, where outcomes are incalculable. Whereas neoclassical economics reduces all cases to risk, Knight argued that a world of generalized probabalistic knowledge of the future leaves no place for profit (as a particular residual revenue that is not contractualizable because it is not susceptible to measure ex ante) and hence no place of the entrepreneur. And whereas the French school of the "economics of convention" (Boltanski and Thevenot 1991) demonstrate that institutions are social technologies for transforming uncertainty into calculative problems, they leave unexamined the possibility of uncertainty about which institution ("regime of worth") is operative in a given situation. Knight's conception of entrepreneurship as the exploitation of uncertainty is, thus, here respecified in the heterarchy framework:

[11] A young business strategist in a leading new media consulting firm in Silicon Alley grasped the problem intuitively. When I asked whether he can speak the language of the designers and technologists on his project teams, he responded that he frequently does. But then he paused for a moment and added, "But I don't always do so. If I always talked to the technologist on his own terms, then he would never understand *me*."

[12] In coping with highly uncertain organizational environments, heterarchies exploit the uncertainty of which regime of worth is operative. From ambiguity, they make an asset. In creating assets that can operate in more than one regime of worth, they make assets that are ambiguous.

Entrepreneurship is the ability to keep multiple regimes of worth in play and to exploit the resulting ambiguity (Stark 1998, 2000).

Making the Best of One's Resources as the Next-Best Way to Capitalism

While managers in advanced sectors are coping with volatile markets, rapid technological change, and the challenges of simultaneous engineering, policy makers in the postsocialist world must cope with a set of different, but equally complex, strategy horizons.

The restructuring of the postsocialist firm is taking place in the context of a dual transformation of politics and property: The twinned processes of democratization and privatization accompanying the collapse of Communism have simultaneously extended citizenship rights and property rights.[13] Indeed, this simultaneity marks the specificity of postsocialism. Several East Asian sociteies, for example, have embarked on the course of democratization, but, unlike Eastern Europe and the former Soviet Union, only after economic reforms had already opened their economies to world markets in a period of an expanding global economy. In Latin America, economic liberalization and political democratization were undertaken at the same time, but unlike Eastern Europe, economic reforms did not involve a fundamental transformation of property regimes.

Adept at mitigating the bureaucratic uncertainties of central planning, managers of the formerly socialist firms suddenly had to cope with an imposing set of uncertainties of a very different character: Trade relations would have to be reoriented with the collapse of the old Soviet-directed COMECON-CMEA (Council of Mutual Economic Assistance) trading partners; suppliers and customers were no longer hierarchically imposed but would now be regulated by contracts (of untested and therefore uncertain enforcement); and new legislation regulating accounting, bankruptcy, and corporate governance brought strange new professionals (accountants, lawyers, and Boards of Directors) right into the heart of the firm. These new uncertainties in the firm's business environment, moreover, were compounded by new political uncertainties when startling rates of unemployment occurred among workers/citizens recently empowered with the capacity to replace political incumbants.

Policy makers and enterprise decision makers thus confronted a complex and unfamiliar strategy horizon. How should they reorganize economies and restructure firms in the face of these extraordinary uncertainties?

For many Western policy advisors who flew into the region (often with little knowledge of its peculiarities), the answers were straightforward, and two positions quickly dominated the debate. On the one side was the message of the neoliberals: the best way to restructure is to use strong markets. Markets, they argued, were not only the goals but also the means. Rapid privatization, trade and price liberalization, strict bankruptcy laws, and an end to government subsidies were key elements of their policy prescriptions. But the depth and rapidity of economic recession in the aftermath of 1989 dampened enthusiasm for the neoliberal agenda, and an alternative, neostatist, position entered the debate arguing that the neoliberal strategy confuses goals and means. To create markets, one cannot simply rely on markets. Strengthening the market requires strong states.

[13] The simultaneous emergence of newly propertied classes and newly enfranchished subordinate groups poses the central postsocialist challenge of how to restructure economies when those who perceive their interests to be threatened by economic change have the capacity to replace political incumbants. For a comparative study of this problem in four East Central European countries, see Stark and Bruszt 1998.

The choice seemed clear: strong markets versus strong states. The problem, however, was that the societies of the postsocialist world historically lack both developed markets and coherent states. The non-existing starting points of the neoliberals and the neostatists recall the joke in which an Irishman in the far countryside is asked, "What's the best way to get to Dublin?" He thinks for a minute, and responds, "Don't start from here."

The irony of the answer would not be lost on East Europeans, for they are all too acutely aware that the *best* ways to get to capitalism started somewhere else. But those options are not available to our contemporary travelling companions. Accordingly, this essay adopts a different analytic starting point, the pragmatic, self-organizing starting point of the East Europeans themselves who, in place of the question "What is the best way to get to capitalism?" must ask, "How do we get there from here?" In place of the therapies, recipes, formulas, and blueprints of designer capitalism, postsocialist firms have had to adopt a different strategy: precluded from the best ways to get to capitalism, they are making the best of what they have.

With what institutional resources have they embarked? Postsocialist societies lack strong markets and strong states, but they have decades of experience with strong networks under socialism. These associative ties of reciprocity were unintended consequences of the attempt to "scientifically manage" an entire national economy: at the shop-floor level, shortages and supply bottlenecks led to bargaining between supervisors and informal groups; at the level of the shadow economy of gray market activities, the distortions of central planning reproduced the conditions for networks of predominantly part-time entrepreneurs; and at the managerial level, the task of meeting plan targets produced dense networks of informal ties that cut across enterprises and local organizations.

Some of these network ties dissipate in the transforming postsocialist economic environment; others are strengthened as firms, individuals, banks, local governments, and other economic actors adopt coping strategies to survive (not all of them legal, and in some countries,many of them corrupt); and still others emerge anew as these same actors search for new customers and suppliers, new sources of credit and revenues, and new strategic allies. The existence of parallel structures in the informal and interfirm networks that "got the job done" under socialism means that instead of an institutional vacuum, we find routines and practices that can become assets, resources, and the basis for credible commitments and coordinated actions. In short, associative ties build new forms of association as the "ties that bind" shape binding agreements.

As interdependent assets, network ties are not the property of the isolated firm but are a "property" of relatively discrete business groupings based on interorganizational ownership ties constructed across the boundaries of enterprises. That is, in the analysis that follows we shift from thinking about *networks as property* (e.g., "social capital") to thinking about *the properties of networks.* This exploitation of the polysemic character of "property" is deliberate as we seek to understand the structural properties (characteristics) of interconnected properties (holdings). The phrase *network properties* thus has a multivocal character. In the parlance of property theory it refers to the interdependence of assets across organizational boundaries; at the same time, in the parlance of network analysis it refers to the properties of networks -- varying, for example, according to such characteristics as their density, extensivity, centrality, and the patterns of their strong or weak (direct or indirect) ties.

This analytic shift has implications for how the categories of structure, strategy, and governance (so prominent in the field of organizational analysis) figure in this account. Once we think about different *groups* of firms constructing different network portfolios (of varying concentration/diversification and varying shapes, contours, and configurations), the very unit of

strategic action changes: structure and strategy become emergent properties of groups. As such, this study is orthogonal to the problem of ownership and control that pervades the literature on enterprise governance. From questions about the role of property in the corporate governance of the postsocialist firm, it turns to implications about the structural properties of network ties for the governance of the postsocialist economy and subsectors within it.

But network ties are only part of the story whereby postsocialist firms are attempting to restructure under difficult circumstances in which there are few new resources. Aid, credit, and direct investment have been paltry when compared to the magnitude of the economic and political transformation in the region. In this situation, one of the principal resources of the postsocialist firm is resourcefulness. Less design than improvisation, restructuring is often a process of bricolage: making do with what is available, redeploying assets for new uses, recombining resources within and across organizational boundaries. From the aggregation and recombination of existing building blocks emerge genuinely new structures and processes.

These recombinant practices have a special character in postsocialist societies where economies are undergoing a profound transformation in property regimes. Conventionally addressed under the rubric of "privatization" and understood as a straightforward transfer of property from public to private hands, in fact, much of the property transformation in postsocialist firms is neither a simple transition from public to private nor a clarification of property rights. Instead, the emerging new property forms blur the boundaries of public and private, erode the organizational boundaries of the firms, and multiply the operative evaluating principles with which the firm justifies access to resources. I refer to this ensemble of characteristics as *recombinant property***.**

Recombinant property is a form of organizational hedging in which actors respond to uncertainty in the organizational environment by diversifying their assets, and redefining and recombining resources. In its extreme form, it is an attempt to hold and label resources that can be justified or assessed by more than one standard of evaluation. The overlap of a multiplicity of property regimes in the postsocialist circumstances does not simply mean that multiple owners are making different claims on the resources of the firm, but rather that the multiple regimes provide multiple opportunities for the firm to make claims for resources. "Asset diversification" in such cases differs markedly from that of the mutual fund portfolio manager, whose strategy can be captured in the algorithm that expresses optimizing preferences across risk functions, short-term revenues, long-term growth, and the like. By contrast, the recombinant strategies in the postsocialist cases are practices that seek to manage asset ambiguity. Under circumstances of asset interdependence, some assets are most valuable precisely where property claims are least clarified; thus, under circumstances where multiple legitimating principles are at play, actors gain advantage if they can exploit the ambiguity of justifications for claims. In this highly uncertain environment, therefore, enterprise survival can depend on skills that make assets of ambiguity.

Recombinant Practices in Hungary

Immediately following the first free elections in Spring 1990, the new democratic government of Hungary announced an ambitious program of privatization. Because this was intended to be a state-directed course of property transformation, the government created a large bureaucratic agency, the State Property Agency (SPA), responsible for every aspect of privatizing the productive assets of the Hungarian economy, some ninety per cent of which had been held by the state. From its inception, the SPA adopted the official policy that privatization would be conducted on a strictly case-by-case, firm-by-firm basis. SPA policy never treated assets as interdependent across firms, or considered that firms might be broken up and their assets regrouped by economic agents with local knowledge of constraints and

opportunities. Instead, it adopted a role as Big Broker, attempting to match buyers to firms, and it sought to legitimate its activities externally by emphasizing the bottom line: revenues brought into the state treasury from the eventual sale of individual firms.

Enterprise directors thought otherwise. While bureaucratic administrators in the agency debated the merits of auctions versus public offerings, and transaction officers in the agency scrambled to acquire some familiarity with the dozens of firms assigned to their supervision, enterprise management took advantage of several pieces of legislation to launch their own strategies of property transformation.

Although we typically think about owners acquiring firms, the peculiar circumstances of the economic transformation in Eastern Europe has placed extraordinary political and economic pressure on postsocialist firms to acquire owners. They do so, moreover, under circumstances in which the demand for owners greatly exceeds the supply. On one side, the demand for owners is high: the postsocialist firm is searching for new owners at precisely the same time that thousands of other firms are doing the same. On the other side, the supply of owners with adequate capital and interest is relatively low: the domestic population has savings that equal only a fraction of the value of the assets of the state-owned enterprises, while there are only so many interested foreign buyers. Politically compelled to find owners to adjust to the new political setting, and organizationally compelled to find owner-allies to address the challenges of the new economic environment, the postsocialist firms find each other. That is, they acquire shares in other firms and they make arrangements for other enterprises to become their new shareholders.[14] The results are dense networks of interlocking ownership ties that extend through and across branches and sectors of the economy, especially among the very largest enterprises and banks.

Network properties

To assess the prevalence of such inter-enterprise ownership, we compiled a data set on the ownership structure of the largest 200 Hungarian corporations (ranked by sales).[15] These firms compose the "Top 200" on the listing of *Figyelö*, a leading Hungarian business weekly. Like their Fortune 500 counterparts in the United States, the "*Figyelö* 200" firms are major players in the Hungarian economy, employing an estimated 21 percent of the labor force and accounting for 37 percent of total net sales and 42 percent of export revenues. The data also include the top 25 Hungarian banks (ranked by assets). Ownership data were obtained in the spring of 1994 and updated in the spring of 1996, gathered directly from the Hungarian Courts of Registry where corporate files contain complete lists of the company's owners as of the most recent shareholders' meeting. Following the convention in the literature of East Asian business groups, analysis is restricted to the top 20 owners of each corporation. [16]

Who holds the shares of these largest enterprises and banks? Through its property holding agencies, the state remains the most prominent owner. It is the sole and exclusive owner of 16.4 percent of these firms, and keeps its hand in as one of the top 20 owners in 44.4 percent of the largest corporations and banks in 1996. Although whittled down, the state is not withering away.

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[14] Property transformation in Hungary thus bears some resemblance to Sabel's "simultaneous engineering" (Sabel and Dorf, 1998). That is, firms began restructuring before design was finalized, and they did so in a collaborative way.

[15] My research partner in this data analysis is Szabolcs Kemeny, a Hungarian PhD candidate at Columbia University.

[16] In the Hungarian economy where only 37 firms are traded on the Budapest stock exchange and where corporate shareholding is not widely dispersed among hundreds of small investors, the twenty owner restriction allows us to account for at least 90 percent of the shares held in virtually every company.

Only five companies (2.0 percent) in this population were owned exclusively by private individuals in 1996. Even by the least restrictive criterion — the presence of even one individual private investor among a company's major owners — individual private ownership cannot be seen as ascendant: in 1994, 102 individuals in the data set held ownership stakes in 8.5 percent of these largest enterprises and banks. In 1996, these figures actually declined, with only 61 individuals appearing among the twenty major owners of only 7.3 percent of the units in our population.

Inter-corporate ownership, on the other hand, is increasing as the percentage of units with at least one corporate owner rose from 66.3 percent to 77.6 percent in 1996. Most notably, the number of units in which all the top twenty owners are other corporations increased from 35.6 percent to 40.2 percent. Many of these owners are themselves the largest enterprises and banks, the very firms for which we gathered the ownership data.

Property as an emergent property

Beyond confirming the prevalence of such inter-enterprise ownership, the data also allow us to identify the links among these large enterprises. These ties are dense and extensive, and they yield numerous networks of interconnected holdings. Figure 1 presents a typical network formed through these ownership ties. The numbered nodes represent specific firms or banks, and the lines indicate an ownership connection between them.

Direct ties among the largest firms, however, are only the most immediate way to identify relational properties in the field of interacting strategies. For, in addition to knowing the direct ties between two firms (e.g., Company A is a major shareholder of Bank B) we can also identify the patterns formed by their mutual shareholdings even when two firms are not themselves directly tied (e.g., Enterprises C, D, E, and F share a relation by virtue of the tie through Bank X, which is a major shareholder in each; or Bank X and Bank Z are "linked" by their mutual ownership in Enterprise M).

FIGURE 1 ABOUT HERE

Incorporating this more complete ensemble of ties allows us to probe a concept that network analysts refer to as "structural similarity." To take a homely example, if all your friends are my friends, we are structurally similar even if we do not know each other. The notion of structural similarity gives a more robust view of the overall properties of the field because it provides a richer interpretation of proximity in a structural space: we might be indifferent to knowing precisely who is friends with whom if our question is to ask, who runs in the same social circles. The strategist for a biotechnology firm who is trying to anticipate the next moves of the competition might well want to know which firms tend to license identical patents, even when the competitors do not directly license patents from each other (e.g., where A's competitors B and C do not license each other's patents, but both tend to license patents from D, E, and F).

For our dataset, two companies are structurally similar if their overall sets of relations, compared to all the other firms in the dataset — that is, to all the possible owners as well as to all the units that can be owned — are nearly alike. We use a clustering algorithm to identify the major business groupings of the Hungarian economy formed through inter-enterprise ties. The results are depicted in Figure 2[17].

[17] Adopting a combination of cliquing and block-modeling procedures (for technical details see Stark, Kemeny, and Breiger, 1997) we use the CONCOR clustering algorithm to identify the business groupings. To plot them, we used KrackPlot (Krackhardt, Lundberg, and O'Rourke, 1993), a software program for representing multidimensional scaling. Figure 2 presents the

FIGURE 2 ABOUT HERE

Whereas Figure 1 represents a discrete network formed through direct ties, Figure 2 takes a broader view to show the various "teams" and their proximity to each other in the whole field. To understand the representation, as a first approximation, think of each firm as having a portfolio of holdings (the other companies in which it holds shares) *and* as having a portfolio of owners (its shareholders). The eight business groupings shown in Figure 2 result from the intersections of these twinned portfolios. Then think again, but this time instead of taking the individual firm as the unit of analysis, take the relatively discrete network of firms as the unit. That is, think about *property* as the network properties of a group of firms, and about a *portfolio* not as a feature of a single firm but as a property of the network. Once we think of each network as a distinctive portfolio, the very unit of strategic action changes. Firms do not disappear in the story, for it is their individual actions of shareholding, of making and breaking ties, that drive the process. But the whole is more than the sum of the parts. Or, more accurately, simply summing the individual portfolios yields the descriptive statistics of percentages held by this or that type of owner, while aggregating their relational properties yields new orders of phenomena above the constituent units. Restated in the language of Complex Adaptive Systems: *property* has emergent properties. The networks represented in Figure 2 are not conglomerates or holding companies. They were not built by design, but emerged from the interacting ownership strategies of hundreds of enterprises. As examples of distributed intelligence, these emergent networks display a feature of heterarchy. A Hungarian business network is not a megafirm, it has no single decision-making center, and unlike the Japanese *keiretsu*, it has no distinctive emblem or flag though which affiliate members signal their collective identity. Too extensive to be called a single strategic alliance, it is a complex network of intersecting alliances.

More detailed analysis of the discrete networks indicates that their strategies of portfolio management are distinctive (for details, see Stark, Kemeny, and Breiger, 1998). In some, structure derives from the role of key banks who own shares in manufacturing enterprises. In others, banks are also prominent, not as owners, but as mutually owned by the affiliated enterprises. Some of the networks span branches and sectors. Others group firms in particular sectors. Network 3, for example, contains the major bus, railroad, trucking, and airline firms, linked with three banks and six foreign trade companies; and the elongated configuration of Network 7 corresponds to its character as an integrated commodity chain that links firms in petroleum, petrochemicals, chemicals, and pharmaceuticals.

But despite the distinctive shapes of their network properties, all of these major business groupings share an important feature of heterarchies: common to each is a strategy of combining heterogeneous resources. Each business network attempts a strategy of portfolio management that diversifies across the resources (and constraints) that derive from ownership by state agencies as well as from the new resources of multinational enterprises and other foreign investors. None is exclusively public nor predominantly private. Each regroups assets that allow it to operate across the playing field. All are poised to take advantage of continuing subsidies, exemptions from tariff restrictions, and state largesse in forgiving inherited debt, while benefiting from new sources of capital, access to markets, and technology transfers. In the postsocialist context, networked property is recombinant property.

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relative proximity of the groupings in the space of structural similarity, with the discrete network diagrams portraying the relative proximity of nodes (firms) and lines indicating ties between respective nodes.

Similarly recombinant strategies take place inside the postsocialist firm. With Figure 3 we take a closer look at "Heavy Metal," one of Hungary's largest metallurgy companies that remains predominantly state-owned. At the same time that it was participating in one of the inter-enterprise business networks shown above, Heavy Metal was spinning off its assets into limited liability companies (*korlátotl felelöségü társaság* or KFT). Limited liability companies are the fastest growing business forms in the Hungarian economy, increasing from 450 at the end of 1988 to 158,000 by the end of 1998. Some of these KFTs are genuinely private ventures. But many, like those shown in Figure 3, are the corporate satellites of large enterprises. These satellites have more ambiguous property status.

FIGURE 3 ABOUT HERE

Like Saturn's rings, Heavy Metal's satellites revolve around the giant corporate planet in concentric orbits. Near the center are the core metallurgy units, hot-rolling mills, energy, maintenance, and strategic planning units, held in a kind of geo-synchronous orbit by 100 percent ownership. In the next ring, where the corporate headquarters holds roughly 50–99 percent of the shares, are the cold-rolling mills, wire and cable production, oxygen facility, galvanizing and other finishing treatments, specialized castings, quality control, and marketing units. The satellites of the outer ring are in construction, industrial services, computing, ceramics, machining, and similar activities, and are usually of lower levels of capitalization. Relations between the company center and the outer and middle-ring satellites are marked by the center's recurrent efforts to introduce stricter accounting procedures and tighter financial controls. These attempts are countered by the units' efforts to increase their autonomy, coordinated through personal ties and formalized in the bi-weekly meetings of the "Club of KFT Managing Directors."

These corporate satellites are far from unambiguously "private" ventures, yet neither are they simply "statist" residues of the socialist past. Property shares in most corporate satellites are not limited to the founding enterprise. Top and mid-level managers, professionals, and other staff can be found on the lists of founding partners and current owners. Such private persons rarely acquire complete ownership of the corporate satellite, preferring to use their insider knowledge to exploit the ambiguities of institutional co-ownership. The corporate satellites are thus partially a result of the hedging and risk-sharing strategies of individual managers. We might ask why a given manager would not want to acquire 100 percent ownership in order to obtain 100 of the profit, but from the perspective of a given manager the calculus instead is "Why acquire 100 percent of the risk if some can be shared with the corporate center?" With ambiguous interests and divided loyalties, these risk-sharing owner/managers are organizationally hedging.

In some cases, ownership stakes of the corporate satellites include ties to and from other large enterprises and the limited liability companies spinning around them. As Figure 4 illustrates for one such restructuring network, the resulting property form thus find horizontal ties of cross-ownership intertwined with vertical ties of nested holdings.

FIGURE 4 ABOUT HERE

Here we see that the limited liability companies that began as corporate spin-offs are oriented through ownership ties either to more than one shareholding company and/or to other limited liability companies. In these restructuring networks, actors recognize the network properties of their interdependent assets and regroup them across formal organizational boundaries. Such network restructuring thus opens the possibilities of increasing the value of existing assets through their recombination. This regrouping does not necessarily imply bringing interdependent assets under the common ownership umbrella of a hierarchically organized

enterprise. Hungarian recombinant property thus provides examples of inter-corporate networks that are alternatives to a dichtomously forced choice between markets and hierarchies.

Risk spreading and risk taking

These inter-enterprise networks are an important means of spreading risk in an uncertain environment. Firms in the postsocialist transformational crisis are like mountain climbers assaulting a treacherous face, and interorganizational networks are the safety ropes lashing them together. Such risk-spreading, moreover, can be a basis for risk-taking. Extraordinarily high uncertainties of the kind we see now in the postsocialist economies can lead to low levels of investment with perverse strategic complementarities (as when firms forgo investments because they expect a sluggish economy based on the lack of investments by others). By mitigating disinclinations to invest, risk-spreading within affiliative networks might be one means to break out of otherwise low-level equilibrium traps.

This relationship between risk-spreading and risk-taking suggests that it would be premature in the postsocialist context to impose a rigid dichotomy between strategies of survival and strategies of innovation. Above all, we should not assume that firms will necessarily innovate even when survival seems to demand it, as if necessity in itself creates the conditions for innovation. Recent studies (Miner, Amburgey, and Stearns, 1990; Grabher and Stark, 1997) provide strong theoretical arguments that firms are more likely to undertake the risky business of innovation (exposing themselves to the "liabilities of newness" by engaging in unfamiliar routines), not when they are pushed to the wall, but when they are buffered from the immediate effects of selection mechanisms. They further demonstrate that interorganizational networks provide this buffering by producing the requisite organizational slack through which enterprises can find the available resources that make it possible to innovate. Thus, these studies suggest circumstances in which the simple imperative, "Innovate in order to survive" is reasonably reversed: "Survive in order to innovate."

These insights have been independently confirmed in a recent study by Ickes, Ryterman, and Tenev (1995) who demonstrate, on the basis of rich survey data on Russian firms, that enterprises that are linked in inter-enterprise networks are more likely to engage in various forms of economic restructuring than similar firms that are not so linked. That finding, moreover, is robust: purely private enterprises are not more likely to undertake restructuring than firms in state ownership, or mixed property arrangements embedded in inter-enterprise networks. A related study on innovation in the Hungarian economy (Tamas, 1993) found that firms with the organizational hedging strategy of “mixed” (public and private) ownership were more likely than purely private or purely state-owned firms to have innovated by introducing new technologies or bringing out new products. In short, when we abandon the forced dichotomy of survival *versus* innovation, we can see that there are circumstances in which survival strategies can be the prelude to strategies of innovation.

Recombinant Practices in the Czech Republic

Postsocialist recombinant property is not a peculiarly Hungarian phenomenon. In Russia, a decree by President Boris Yeltsin in December 1993 authorized the creation of Financial-Industrial Groups (FIGs) involving the merger of the capital bases of enterprises and financial institutions (both state and private). Ratified by a law passed by the Russian Parliament in October 1995, officially registered FIGs are eligible for special state investment credits, loan guarantees, and favorable regulations such as accelerated depreciation of their assets. At the beginning of 1996 there were already 30 officially registered FIGs, containing over 274 member companies, including 69 financial institutions. By October 1999, their numbers had grown to 87, comprising over 2000 organizations and employing more than 4 million workers (Buck 1999).

Meanwhile the number of unregistered, or unofficial, FIGs has soared into the hundreds (Kim 2000). Whereas large manufacturing firms typically occupy a central place in the official FIGs and their assets are correspondingly specific to a particular industrial sector or branch (e.g., metallurgy), unofficial FIGs exhibit the predominance of financial over industrial capital and are frequently characterized by highly diversified assets. Large Russian banks have been purchasing shares in manufacturing firms since 1992, but more recently the unofficial FIGs have benefited from equity transfers of formerly state-owned assets through "loans-for-shares" privatization in which the state has auctioned majority stakes of voting stock of strategic enterprises in exchange for FIG-sponsored credits to the Russian government (Johnson 1997). The unofficial FIGs thus acquired strategic assets through closed auctions at a fraction of their market value.[18]

Recombinant property is also a prominent feature of the postsocialist Czech economy – perhaps surprisingly given that the initial ideology of its leading policy makers appeared so antithetical to recombinant strategies. The original vision of Vaclav Klaus (Finance Minister of postsocialist Czechoslovakia and later, after the "Velvet Divorce," Prime Minister of the Czech Republic) was determinedly neoliberal. As a central component of his strategy, a speedy if unorthodox privatization scheme would separate property from the state, from other stakeholders, and from any considerations other than caring for profitability. One of the goals of the privatization program was to create sovereign owners with clear property boundaries thereby avoiding the kinds of mixed property forms and blurred organizational boundaries so characteristic of the Hungarian experience. The much-vaunted voucher privatization scheme (in which state-owned enterprises were put on "auction" for "investment points" held by citizens) was to be the means to this end.

By transferring assets of the state enterprises through a voucher-auction, the Czech policy makers appeared to favor a kind of popular capitalism with millions of citizen investors and a clear separation of public and private property. Until just a few months before the first wave of computerized auctions, however, only several hundred thousand citizens had entered the privatization lottery by paying 1000 crowns (about $35) to register the investment points of their voucher coupon books. The problem of low participation was solved when "investment funds" (an afterthought in the initial program) began to promise citizens who signed over their investment points a 1,000 percent return, payable a year and a day following the transfer of their points into shares. Czechs and Slovaks responded from years of socialist conditions: Averse to risk, they were unwilling to play the investors' game, but they could recognize a guaranteed income when they saw it. Millions signed up.

The consequence of the voucher privatization was not to make popular capitalism but to make Vaclav Klaus popular.[19] Klaus was named Prime Minister following an election held just weeks after millions had registered their investment points by signing their names next to his signature (as Finance Minister) on their voucher coupon booklets. The outcome, moreover, has not been a people's capitalism but a peculiar kind of finance capitalism. During the first wave of privatization, only 28.1 percent of investible points were held by individual citizen investors. 71.9 were held by the 429 Investment Privatization Funds (IPFs). When we aggregate the voucher points obtained by the multiple IPFs founded by the same investment company, we find that 48.5 percent of all available voucher points in the first wave were held by the nine largest

[18] In Poland, Industrial Holdings (Dornisch 1997) are a further postsocialist example of mega-corporate groupings that blur the boundaries of firms and the boundaries of public and private.

[19] The evolution of Klaus's politics from neoliberal ideologue to a "programmatic pragmatist" is described in detail in Stark and Bruszt (1998, Chapter 7). That account focuses not on the personality of the Czech Prime Minister but on the institutional constraints that moderated and pragmatized his policies.

investment firms. That is, almost half of all the investment points were held by less than 10 investment companies.[20] This concentration of investment points, moreover, still understates the predominant position of the largest investment companies because individual voucher holders are almost never represented (and the smaller IPFs are underrepresented) on the boards of directors of the "privatized enterprises" where board seats are typically distributed to the largest blockholders.[21]

In this Czech finance capitalism, voucher privatization did not sever ties between state and economic institutions, it reorganized them. The investment companies are not unambiguously private: the founders of six of the nine largest funds are predominantly state-owned financial institutions (banks and insurance companies).[22] For example, four of the five largest investment companies were founded by the largest banks -- institutions in which the National Property Fund holds the controlling interest (44% of Komercni Banka, 45% of Vseobecn Uverova Banka, 45% of Investicni Bank, and 40% of Ceska Sporitelna). The same Fund, moreover, still owns about 20 percent of the book value of the "privatized" companies and directly holds seats on the boards of many enterprises. Meanwhile, the Ministry of Finance controls the Konsolidacni Banka which is the major creditor of 80 percent of all medium and large firms in the Czech Republic.

Most importantly, as we see in Figure 5, banks and investment funds are cross-owned and the investment companies are interlocked in networks of related holdings. That is, investment companies, founded by the major banks, in turn, acquired shares of the banks through the voucher privatization. As John Coffee documents, sizeable stakes in the major commercial, investment, savings, and banks were acquired by investment funds established by the major financial institutions.[23] In the typical case, a large investment fund holds shares in its sponsoring financial institution[24] as well as in one or more of the other major banks. In addition to their ties through their co-ownership of the banks, Czech investment funds are also linked to each other through their enterprise holdings. Regulations of the voucher-auction prohibiting an investment fund from acquiring more than 20 percent of a given enterprise virtually insured that the typical firm becomes a node at which investment funds intersect. Thus, one of the most important outcomes of voucher "privatization" is that the largest investment funds and the largest banks are criss-crossed by ties of interorganizational ownership.

FIGURE 5 ABOUT HERE

Interorganizational Networks Compared

Are the Hungarian inter-enterprise ownership networks the East European counterparts of Taiwanese "related enterprises"? Are the cross-owning banks/investment companies Czech versions of the Korean *chaebol*? The question suggests a comparative study of corporate groupings in modern economies. The more proximate question for this investigation of the

[20] PlanEcon Inc., "Results of Czechoslovak Voucher Privatization" PlanEcon Report vol. VIII, December 1992, pp. 8-9.

[21] Brom and Orenstein (1994) estimate that the thirteen largest investment companies hold about 75% of the board seats won in the first wave of voucher privatization.

[22] Of the remaining three, two were founded by foreign (German and Austrian) banks. The third is the largest "independent" investment company, Harvard Capital and Consulting.

[23] Coffee (1996) presents a thorough and lucid discussion of the major issues of corporate governance in the Czech investment funds.

[24] By creating subsidiary funds, investment companies easily circumvented the loose regulations that technically prohibited an investment fund from acquiring shares in the bank which founded it.

postsocialist firm is to ask: how do the network properties of the Hungarian and Czech cases differ?

In both economies we find dense and extensive networks of inter-organizational ownership. But the shape and patterns of these networks are distinctive in each economy, and consequently, the structure of corporate groupings are likely to differ. My analysis indicates that Hungarian networks are formed predominantly through enterprise to enterprise links, sometimes involving banks yet lacking ties between banks and intermediate-level institutions such as investment companies. The Czech case is the mirrored opposite. There, ownership networks are formed predominantly through ties at the meso level among banks and investment funds, but direct ownership connections among enterprises themselves are rare. Restated in the language of network analysis, *whereas Hungarian networks are tightly coupled at the level of enterprises but loosely coupled at the meso level, Czech networks are loosely coupled at the level of enterprises and tightly coupled at the meso level*.

The distinctive patterns of the Czech and Hungarian ownership networks bear the marks of their respective societies prior to 1989 and of their differing pathways from state socialism. Each configuration has been directly shaped by different policies of property transformation (Stark and Bruszt 1998, chapter 3). But these economic strategies were not dictated or imposed upon the blank features of a postsocialist institutional vacuum. Instead, they interacted with the strategies of actors within each economy who possessed distinctive organizational resources and who were well-practiced in different repertoires of action, themselves shaped by the distinctive character of their pre-existing network ties.

Through partial economic reforms in Hungary during the 1970s and '80s, enterprises were already gaining considerable autonomy, enjoying greater flexibility in choosing other enterprises as supply partners, and constructing networks of small-scale proto-entrepreneurial producers at (and even within) the boundaries of the firm. Moreover, legislation facilitating property transformation was already in place before the system change of 1989 and the installation of the first democratically elected government in May 1990. As a consequence, Hungarian firms already had direct enterprise-to-enterprise contacts and a legal framework in which these horizontal ties could be transformed into the inter-enterprise ownership networks of the present.

Czech enterprises, of course, had not enjoyed such autonomy under state socialism. But they were not without their own network resources in their ongoing conflicts with the industrial ministries of the old regime. The difference to Hungary was that these networks operated not through direct enterprise-to-enterprise ties but at a meso level through "Industrial Associations" organized within industrial branches (e.g., metalurgy, chemicals, machining, etc.) or along regional lines. So resilient were these meso-level associations that they survived or resurfaced after several attempts at their elimination by the communist authorities (McDermott 1997). It is at this similarly meso level, as opposed to direct enterprise-to-enterprise ties, that the networks of cross-ownership are most dense in the contemporary Czech economy.

In both cases, property relations are being transformed -- but *within structures whose network features exhibit continuity even as their ownership content is altered*. In neither case is property transformation a simple transition from public to private. In both, it results in the blurring of the properties of public and private. And in both, we find strategies of recombinant property in which actors diversify their portfolios of heterogenous assets and trespass organizational boundaries in attempts to maneuver through situations where organizational survival is fragile not simply because of market uncertainties but also because the criteria of success, the measures of worth, and the selection mechanisms are themselves uncertain.

Accounts

In the highly uncertain organizational environment that is the postsocialist economy, relatively few actors (apart from institutional designers such as IMF advisors or local policy-makers in Finance Ministries) set out with the aim to create a market economy. Many, indeed would welcome such an outcome, but their immediate goals are more pragmatic: at best to thrive, at least to survive. And so they strive to use whatever resources are available. As they do so, they maneuver not only through an ecology of organizations but also through a complex ecology of ordering principles.

To analyze this process, I exploit a notion of accounts. Etymologically rich, the term simultaneously connotes bookkeeping and narration. Both dimensions entail evaluative judgments, and each implies the other: Accountants prepare story lines according to established formulae, and in the accountings of a good storyteller we know what counts. In everyday life, we are all bookkeepers and storytellers. We keep accounts and we give accounts, and most importantly, we can be called to account for our actions. It is always within accounts that we "size up the situation," for not every form of worth[25] can be made to apply and not every asset is in a form mobilizable for a given situation. We evaluate the situation by maneuvering to use scales that measure some types of worth and not others, thereby acting to validate some accounts and discredit others (Boltanski and Thevenot 1991).

The multiple accounts voiced in Hungarian heterarchies respond to and exploit the fundamental, though diffused, uncertainty about the organizational environment. In transforming economies, firms have to worry not simply about whether there is demand for their products, or about the rate of return on their investment, or about the level of profitability, but also about the very principle of selection itself. Thus, the question is not only "Will I survive the market test?" but also, under what conditions is proof of worth on market principles neither sufficient nor necessary to survive? Because there are multiply operative, mutually coexistent principles of justification according to which you may be called on to give accounts of your actions, you cannot be sure what counts. By what proof and according to which principles of justification are you worthy to steward a given set of resources? Because of this uncertainty, actors will seek to diversify their assets: to hold resources in multiple accounts.

This ability to glide among principles and to produce multiple accountings is an organizational hedging. It differs, however, from the kind of hedging to minimize risk exposure that we would find within a purely market logic as, for example, when the shopkeeper who sells swimwear and sun lotion also devotes some floor space to umbrellas. Instead of acting within a single regime of evaluation, this is organizational hedging that crosses and combines disparate evaluative principles. Recombinant property is a particular kind of portfolio management. It is an attempt to have a resource that can be justified or assessed by more than one standard of measure (as, for example, the rabbit breeder whose roadside stand advertises "Pets and Meat" in the documentary film, *Roger and Me*). In managing one's portfolio of justifications, one starts from the axiom: diversify your accounts.

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[25] Issues of worth and justification raise important questions for the new economic sociology. Recall that the maturation of sociology was struck in an institutionalized bargain with economics separating their disciplinary objects of study (Camic 1989): You, the economists, study value; we sociologists will study values. Acknowledging your jurisdiction in the analysis of the economy, we study the social relations in which economies are embedded. But economic sociologists are no longer bound by that bargain. Rejecting that division of labor opens the possibilities for a sociology of worth. See Stark 1990; 2000.

The adroit recombinant agent in the transforming economies of East Central Europe diversifies holdings in response to fundamental uncertainties about what can constitute a resource. Under conditions not simply of market uncertainty but of organizational uncertainty, there can be multiple (and intertwined) strategies for survival, based in some cases on profitability but in others on eligibility. Your success is judged, and the resources placed at your disposal determined, sometimes by your market share, and sometimes by the number of workers you employ in a region; sometimes by your price-earnings ratio and sometimes by your "strategic importance"; and, when even the absolute size of your losses can be transformed into an asset yielding an income stream, you might be wise to diversify your portfolio, to be able to shift your accounts, to be equally skilled in applying for loans as in applying for job creation subsidies, to have a multilingual command of the grammar of credit-worthiness and the syntax of debt forgiveness. To hold recombinant property is to have such a diversified portfolio.

To gain room for maneuver, actors court and even create ambiguity. They measure in multiple units, they speak in many tongues. In so doing, they produce the heterarchical discourse of worth that is postsocialism. We can hear that polyphonic chorus in the diverse ways that Hungarian firms have justified their claims for participation in a debt-relief program established by the government after its earlier programs had precipitated a near-collapse of the financial system[26]. The following litany of justifications are stylized versions of claims encountered in discussions with bankers, property agency officials, and enterprise directors:

- Our firm should be included in the debt relief program because we will forgive our debtors[27].
- Our firm should be included in the debt relief program because we are truly creditworthy[28].
- Because we employ thousands.
- Because our suppliers depend on us for a market.
- Because we are in your election district.
- Because our customers depend on our product inputs.
- Because we can then be privatized.
- Because we can never be privatized.
- Because we took big risks.
- Because we were prudent and did not take risks.
- Because we were subject to planning in the past.
- Because we have a plan for the future.
- Because we export to the West.
- Because we export to the East.

[26] Those policies are described in Stark (1996). The following chorus is drawn from the same article.

[27] I.e., our firm occupies a strategic place in a network of inter-enterprise debt.

[28] I.e., if our liabilities are separated from our assets, we will again be eligible for more bank financing. Similar translations could be provided for each of the following justifications.

- Because our product has been awarded an International Standards Quality Control Certificate.
- Because our product is part of the Hungarian national heritage.
- Because we are an employee buy-out.
- Because we are a management buy-in.
- Because we are partly state-owned.
- Because we are partly privately-held.
- Because our creditors drove us into bankruptcy when they loaned to us at higher than market rates to artificially raise bank profits in order to pay dividends into a state treasury whose coffers had dwindled when corporations like ourselves effectively stopped paying taxes.

And so we must ask, into whose account and by which account will debt forgiveness flow? Or, in such a situation, is anyone accountable?

Accountability

When they attempt to hold resources that can be justified by more than one legitimating principle, actors within heterarchies make assets of ambiguity. It is this ambiguity, together with the network properties that underlie it, that forms the basis for the kind of strategic play that Padgett and Ansell (1993) label "robust action." At the core of robust action is the fact "that single actions can be interpreted coherently from multiple perspectives simultaneously, the fact that single actions can be moves in many games at once, and the fact that public and private motivations cannot be parsed"[29]. The outcome is flexible opportunism, that is, maintaining discretionary options across unforeseeable futures in the face of hostile attempts by others to narrow those options[30]. Actors within heterarchies are doubly bound: bound in their associative ties, and bound to speak in multiple tongues. But this peculiar "double bind" produces not an organizational schizophrenia but an organizational flexibility[31].

Is this acute flexibility an unmixed blessing? I think not. In this I depart from the now standard formula in which the economic sociologist enumerates the problems created by markets, recounts the problems created by hierarchy, and then delineates the problems resolved by the

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[29] Padgett and Ansell 1993: 1263. Teubner (1996:62-3) adopts different language to the same effect: "What networks gain through double attribution is a drastic improvement of their environmental situation. One and the same configuration can appear in one environment as a multitude of individual actors connected by contracts and in a different environment as one collective actor, an autonomous player in a different game. This chameleon-like quality of networks gives them access to new environments which would not be accessible to them if they were either a mere nexus or a mere collective actor. ... Indeed, in their hybrid character, networks seem to be tailored to the bridging of different contradictory rationalities."

[30] Crucial for maintaining discretion is not to pursue any specific goals: "For in nasty strategic games ... positional play is the maneuvering of opponents into the forced clarification of their (but not your) tactical lines of action" (Padgett and Ansell 1993: 1265). Victory, hence, means locking in others, but not yourself, to goal oriented sequences of strategic play that become predictable thereby.

[31] "Under certain conditions, hybrid arrangements can provide for an institutional environment where paradoxical communication is not repressed, not only tolerated, but invited, institutionally facilitated and turned productive" (Teubner 1996:59).

new organizational forms (hybrids, networks, flexible specializations, etc.). But as the best practioners are already recognizing, the new organizational forms also create new problems. The same opportunistic blurring of boundaries that leads to a recombination of assets and a decomposition and reintegration of organizations also bears a social cost: it erodes (or, in the postsocialist case, retards) accountability. The problem with the peculiarly diversified portfolios of the new heterarchies 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.

Heterarchies (hybrids, networks) pose a new set of conceptual problems for legal theory. Whereas organizational analysis (from different disciplinary and theoretical perspectives) now recognizes a new type of economic agent, legal theory (with its construct of the legal personality limited to the individual and the corporation) does not yet recognize the new economic actor as a new moral agent[32]. Unless we are willing to posit "flexibility" as an over-riding value and a meta-legitimating principle, we cannot escape the challenge that postsocialism poses, not uniquely but acutely, for our epoch: if heterarchies are viable economic agents of permanently ongoing restructuring, how can we make them accountable?

Conclusion

Several years after I bought the tin can that we saw in my Introduction, a friend in Budapest told me about a board game he had played as a child during the socialist period. Prior to the Second World War, Hungarians had played Monopoly, known there as *Kapitaly*. But the competitive game of capitalism was banned by communist authorities, who substituted another board game, *Gazdalkozde Okosan!*, or "Economize Wisely!." In this goulash communist version of political correctness the goal was to get a job, open a savings account, and acquire and furnish an apartment. My friend was too young to have a *Kapitaly* board, but his older cousins from another part of the country knew the banned game and taught him the basic rules. You didn't need to be a nine-year old dissident to see that Monopoly was the more exciting game. And so they turned over the socialist board game, drew out the *Kapitaly* playing field from Start to Boardwalk on the reverse side, and began to play Monopoly – using the cards and pieces from Economize Wisely. But with the details of the rules unclear and with the memories of the older cousins fading, the bricolaged game developed its own dynamics, stimulated by the cards and pieces from the "other side." Why, for example, be satisfied with simple houses and hotels when you could have furniture as well? And under what configurations of play would a Prize of Socialist Labor be grounds for releasing you from or sending you to Jail?[33]

The notion of playing capitalism with communist pieces strikes me as an apt metaphor for the postsocialist condition[34]. The political upheavals of 1989 in Eastern Europe and 1991 in

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[32] On the conceptual problems for legal theory of recognizing networks as new moral actors see the insightful work of Günther Teubner (1991); Hutter and Teubner (1993); also Buxbaum (1993).

[33] The story itself was related while we watched my children playing their own hybrid version: having left the houses and hotels of their Monopoly set at a friend's house, they had started to use Lego building blocks (much preferred to the Monopoly pieces even after returned) to construct ever more elaborate structures in a game whose rules evolved away from bankrupting one's opponents and towards attracting customers to the plastic skyscrapers that towered over the Monopoly plain.

[34] In East Central Europe (and especially Hungary), proximity to West European markets, more familiarity with democratic institutions, prior experience with market culture (a subtext of my friend's story), and much higher levels of direct foreign investment have operated to channel the

Russia turned the world upside down. Misled by an apparent tabla rasa, the IMF and Western advisors issued instructions for the new "rules of the game," but it was played with the institutional remnants of the past that, by limiting some moves and facilitating other strategies, gave rise to multiple systems of accounting. Firms responded to these uncertainties by exploiting the uncertainties. The results are, as we saw, the networks linking statist insitutions and "privatized" firms in the Czech Republic and the multiple legitimating claims in the polyphonic chorus of Hugarian debt forgiveness.

But, if our Hungarian chorus sounds strange and exotic, it should be so only upon first encounter. For, although that litany expresses multiple accounting principles in an especially acute form, the notion of coexisting evaluative frameworks is far from foreign in the highly uncertain environments of advanced sectors in the west. If the successful Hungarian manager must be as skilled in the language of debt forgiveness as in the language of negotiating with a prospective multinational partner, the CEO of a start-up firm in biotechnology might well survive only if she is as adept in writing grant proposals to federal agencies as she is in making the pitch to prospective venture capitalists. We need not travel to Eastern Europe to encounter difficulties in assessing the value of firms, when stories of the difficulties of evaluating Internet stocks fill the front pages of our newspapers. We are not strangers to the problems of parsing public and private, for we need look no further than the complex proprietary arrangements between private firms and public universities in the fields of computer science, biotechnology, new media, and engineering. And the search for a mutually comprehensible language across the cultures of science, politics, and business in the human genome project offers no less acute problems of public and private accountability.

To write of "problems" is not to denounce the creative organizational solutions that are evolving in all of the areas mentioned above. On the contrary, it calls attention to the fact that the most sophisticated, dynamic, and path-breaking sectors are likely to be arenas where public and private are closely intertwined.

Complexity, in the field of organizations, is the interweaving of diverse evaluative principles. These principles can be those of public and private accountings, but they can also be the diverse worldviews of different professional identities, each with its own distinctive ways of measuring value and selecting what counts. The assets of the firm are adaptively increased when there are multiple measures of what constitutes an asset. Value is amplified precisely because values are not shared. The heterarchical organization of diversity is sometimes discordant. But to still that noisy clash by the ascendancy of only one accounting would be to destroy the diversity of organizing principles that is the basis of adaptability.

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recombinant strategies along recognizably capitalist, though distinctively East European, lines. More challenging, politically and analytically, are developments in the former Soviet Unio where some of the pieces from the communist past are the firearms of the now criminalized parts of these economies that are very far from childsplay.

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