

**Design, Deliberation, and Democracy:  
On the New Pragmatism of Firms and Public Institutions**

by

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In historical retrospect the reorganization of manufacturing and service firms worldwide is likely to be seen as one of the signal events of this century, and as enduring and perturbing in its legacy as the victory of the market economies over the centrally planned ones. Today of course this view outlandishly confuses the immediate significance of events. The victory of the market economies suggests the conclusive validation of universal and timeless principles of efficient economic coordination; the reorganization of firms, however disruptive and costly, seems but an example of the continuing adjustment to changed circumstances enabled by -- indeed, providing the final confirmation of -- those very principles of efficiency. At its grandest this victory suggests the triumph of those freedoms authenticated as indispensable to economic exchange and well being over those founded on other, political, principles. Thus privatization becomes the omnibus program of reform not only of the former plan economies but of the representative democracies, with their apparently sclerotic social welfare administrations and regulatory agencies, as well.

What this valuation overlooks is the possibility that the new firms operate by principles of decentralized coordination so different from those of the preceding epoch of large-scale organizations, and so disruptive of the institutional connections to the administrative state, that the "market economy" and "representative democracy" of the coming decades will look as different from the timeless victors of today as the latter now seem from their mid-nineteenth century, small-scale predecessors. The aim of this essay is to provide some initial but fundamental reasons for taking seriously this possibility and the prospects for fundamental reform of democracy itself that follow from it.

The method of demonstration will be as oblique as the central claim is on its face outlandish. The diffusion of new, decentralized organizational forms is taken for granted because I believe it can be; characterization of their distinguishing features is spare and limited to the common knowledge of those for whom operation of the new forms is no longer a novelty. Nor will I speculate much, except with regard to the role of the legislature and judiciary and to the organization of public administration, about radical alternatives to established institutions that may be contained in the new forms of decentralized coordination.

The argument will be directed, rather, to the incongruity between the new principles of organization and the reconceptualization of representative democracy and law they suggest, on the hand, and the common understanding of organizational and democratic possibilities established canonically in the works of Durkheim and Hayek, on the other. Durkheim and Hayek are the point of reference because both hold that the division of labor proceeds by a kind of spontaneous self-organization, without the need for central direction. Their work thus appeals to an age in which the directive powers of corporate headquarters or the central state or cohesive social groups with designs for society, seem superfluous and even obstructive of progress. In this they differ from other progenitors of modern social thought such as Marx and Weber. But beyond that fundamental commonalty they differ sharply. For Durkheim the precondition of flexible adjustment is the existence of a common moral framework, embodied and established in law and sanctified by palpable social consensus, upon which actors can rely in the case of disputes arising from their dealings. For Hayek such a frame endangers progress in the limits it imposes on exploration. Coordination in his view is secured by observance of rules of just conduct that have established themselves precisely because they allow the societies that adopt them to outperform competitors. As these differences resonate with and indeed are often invoked in disputes between (neo) liberal critics of the administrative state and its social democratic proponents, reference to Durkheim and Hayek captures essential aspects of both the theoretical core and the political diversity of contemporary self-reflection on decentralizing reorganization.

The argument here is that it is the common and defining distinction at the core of modern views of spontaneous organization, and not their secondary and politically divisive elements, that misses the crucial point of the current wave of innovative decentralization. That defining distinction is between tacit knowledge and guiding rule. The former is a kind of active understanding of particular settings that makes possible effective and autonomous local action, yet remains so tied to immediate experience that it cannot be rendered intelligible to outsiders. The latter, discovered in this experiential understanding but rendered in conceptual categories at once conformable to yet alien from it, consists of those authoritative principles of behavior which must be respected for disparate actions, each informed by the appropriate tacit knowledge, to achieve coordinate results. Registration of these principles is for Durkheim and Hayek the responsibility of the state as instructed by representative democracy properly conceived.

It is precisely this distinction between tacit action and formal, ultimately political rule, I will argue, that is overturned by the central innovation of the new organizations: the invention of institutions that allow each part of a collaborative whole to reflect deliberately, and in a way accessible to the others, on the aptness of its ends and the organizational means used to prosecute them, even as those common ends are themselves continuously redefined by the cumulative, mutual adjustments of partial purposes, activities, and organizational connections. These institutions, we will see, allow articulation of a single language of practical reason in which questions regarding the performance and the coordination of particular tasks can be addressed by disciplines with similar syntax. These innovations transform general ideas about the social exploration of ambiguity originally formulated by the pragmatists by extending them to economic and, potentially, political life. They reintegrate conception and execution by transforming corporate bureaucracies founded on their distinction; they evoke as well the prospect of joining democracy and workaday activity to combine the freedom of the ancient citizen to participate directly in lawmaking, but in a state that disdained concerns of daily life, and freedom of the modern citizen to express views on every manner of activity, but in a form, that of the public opinion apt to influence the law only at a remove.<sup>[1]</sup>

The body of the argument is in four parts. The first sets out the bare bones of decentralizing reform and suggests why, despite the enormity of the changes they manifestly provoke, thoughtful observers have been inclined to assimilate them to familiar forms of coordination. Then follows a discussion of the views of Durkheim and Hayek and especially of the distinctive and contrasting efforts to make sense of decentralization that grow out of the work of each. The next step is to examine the shortcomings of the separate lines of explanation as an account of the defining features of the new decentralized organizations; to trace these shortcomings to their common root in the distinction between the tacit knowledge that guides local action yet cannot be formalized and the formal rules of that coordinate action at a distance; and to contrast this distinction with an alternative, pragmatist account of the relation between rules and actions that accords better with the new facts.

The last part puts the preceding arguments to programmatic use by drawing conclusions from them for the reconceptualization of democracy and with it reform of public administration. I take as given the view, widely held among commentators on administrative law, that under current conditions the legislature can no longer expect its enactments to be applied to changing circumstances effectively and with respect for their democratic authorization by

the public agencies charged with doing so. But neither, given the complexity and mutability of the world it addresses, can the legislature remedy this defect by imposing its will directly through detailed enactments. A (Hayekian) conclusion is that a legislature that can neither write complex laws nor entrust the crucial details of lawmaking to others ought to limit its activity to announcing the few rules of just conduct required for coordination in a complex world. Yet the preceding discussion will have shown this conclusion to depend on implausible assumptions about the origins of such rules in practical activity, and more importantly, to neglect the possibilities to reintegrate conception and execution of lawmaking in democracy suggested by the firms' response to their own discovery of the limits of centralized direction. To explore those possibilities I advance here a federalist project of democratic experimentalism in which the legislature authorizes general programs whose particulars are determined by the affected parties, on the condition that they declare goals and establish performance measures such that their actions can be judged by comparison with the actions of like groups undertaking similar projects in other jurisdictions. This method of goal-setting, analogous to the one developed in the firms and policed, in the public sphere, by the legislature and the courts, provides, I argue, information about the possibilities of collective action by which individuals may vindicate the rights of participation and freedom of expression intrinsic to democratic citizenship while the polity as a whole can evaluate experiments undertaken in its name.

In proceeding from reinterpretation of the economic reorganization in progress to a radical reimagining of democracy I may be joining error to error. Perhaps the reform of the firms is in the end the triumph of familiar principles; even if not, it may be that innovation there is not applicable to the problem of legislative paralysis. Surely it would be more prudent, and perhaps more propitious to the debate I mean to encourage, to pique liberalism's experimentalist curiosity by suggesting insufficient attention to the novelty of its accomplishments. But it is pointless to play at naiveté: The idea that "privatization," East or West, simply undoes error and clears the way for economic and political innovation without favoring any particular variant of market economy or representative democracy is belied by a mass of writings in or influenced by public choice, law and economics, or the economics of the "transition" economies which draws on the conventional understanding of the confusion and corruption of modern experience precisely in order to offer advice on particulars or on the advisability of (not) seeking public solutions to many of the gravest problems in the first place. But if there is a way beyond the impasse of representative democracy it seems likely to depend on a novel institutionalization of the relation between means and ends of a sort the current

understanding of workable mutual adjustment to new circumstances assumes away. This is precisely the achievement, we will see, that actors in the new economy take for granted. Experimentalist curiosity aside, the destitution of our political possibilities requires that we inquire whether they may be right.

## 2. No-account Changes

The large, centrally directed bureaucracy that defined efficiency in corporations and public administration is giving way to more decentralized and federated structures. The basic unit of these new structures is the team or work group charged with responsibility and given the means for achieving a goal as it determines, and this whether or not it has the formal autonomy of a legally independent entity. Coordination of these groups is by means of iterated goal setting: General projects such as, for example, the design of a new car, are initially determined by evaluation of best practice and prospects of competing developmental alternatives. These general goals are in turn successively decomposed, again by reference to leading example and comparison of possibilities, into tasks for teams or work groups. Then the goals are modified as groups gain experience in prosecuting the tasks as originally defined. Through these revisions, modifications in the parts lead to modifications in the conception of the whole, and vice versa. The same procedure of monitoring decentralized learning, moreover, allows each part to observe the performance of the other collaborators accurately enough to determine whether continued reliance on them, and dedication of resources to the joint projects, are warranted. Because of this connection between joint exploration of collaborative possibilities and mutual evaluation I call these systems learning by monitoring (Sabel 1994).

The nuts and bolts of these changes are sufficiently understood to be rendered as textbooks and how-to manuals in such disciplines as industrial engineering, manufacturing design, accounting, and logistics broadly conceived as customer-supplier relations. The common theme of the new understanding is the drive to expose and reduce fixed or sunk costs: the expenses incurred by an economic unit regardless of the level or precise character of its current activity. For the less the share of fixed costs in the total costs of production, the greater the proportion of resources available to project groups to pursue solutions specific to their ever-changing tasks. In the world of centralized organizations, in contrast, the distinction between fixed and variable costs was under normal circumstances given little weight as the organization as a whole was conceived

as dedicated to particular long-term projects. Hence even the longest-term investments could be amortized over the life of the project, and efficiency concerns were directed to increasing the utilization and productivity of all project-specific resources, not facilitating their redeployment to new tasks. It is a measure of the extension of the new nuts-and-bolts understanding and its matter-of-fact acceptance that operating personnel and students of engineering and business in the developing as well as the advanced countries are, as we will see, taught to regard such rules of thumb of the old world -- for example: higher quality means lower efficiency, or design must be completed before production begins -- as the barely comprehensible misapprehensions of the pre-history economic modernity.

The assumptions underlying the new, decentralized organizations are anything but innocuous. In particular, they assume away all the institutional ties and habits of mutual reliance that gave the standard, integrated corporation its integrity and its employees their economic security. If project groups and work teams can determine who supplies their inputs, then they need not choose the internal unit on whom they have traditionally relied, and who is specialized in just what they no longer want. Thus, to continue the automobile example, if the new-model design team decides to use an engine which the corporation's engine division cannot manufacture, or can produce only at excessive cost, the designers turn to an outside supplier; and if the engine unit fails repeatedly to meet the needs of its internal customers, and cannot replace them with orders from outsiders, its survival is in doubt. The idea of having to compete again and again to create and maintain a fragile version of the stability once taken for granted as constitutive of the work setting itself is terrifying to managers and blue collar employees alike. Concerns of economic security aside, moreover, the reconceptualization of productive activity required to move from the old organization to the new is itself daunting: For managers used to making investment decisions on the assumption that most of the production system is fixed, and therefore that a good investment is one that returns large savings in production costs per dollar invested the notion of justifying projects by the cash flow they will generate, essentially without regard to the prior investments of the firm, is all but incomprehensible. These and like considerations explain why efficiency-increasing reorganization which, as the example of leading firms shows, pay for themselves so richly that they ought in textbook theory to be everywhere and instantly adopted are typically greeted with skepticism and suspicion by those habituated to the integrated corporation, and implemented in established firms only under dire competitive threat. But what follows looks forward to the implications of the new organizations, not sideways to the turmoil which is usually their handmaiden; and we shall consider what are

euphemistically called "problems of adjustment" only insofar as they shed light on the fundamental differences between old and new.

In any event, most these changes, and above all the questions about the possibilities of cooperation in economic life and politics that they raise, have so far had but a marginal effect on reflection in the social sciences and political theory, and no more than an oblique one in political debate. Their effect on the social sciences and political theory has been marginal in that only marginal sub-disciplines such as economic geography, political economy, policy studies, the theory of contemporary democracy, and economic sociology exhibit any urgency in attempting to explain them. A common disposition of these sub-disciplines is to view the activity of particular economic units as part of larger ensembles such as communities, polities, or even agglomerations of firms in particular labor and product markets. Because of this focus on encompassing wholes, these sub-disciplines have been attentive to rearrangements among the parts, and hence they are alert to the changing connections and the changed character of connections among economic units, and between them and surrounding institutions which mark the progress of the forms of organizations.

But this same attention to wholes and ensembles has often proved self-limiting, and more apt to truncate than extend discussion of the discoveries it enables. Thus debate in these areas tends to oscillate between reports of disruption -- of communities, government programs, social solidarity or political integrity -- as a consequence of the perturbing effects of new connections on established institutions, and announcements of the discovery of new organizational forms -- networks, clusters, industrial districts, production chains -- whose properties make them particularly adaptive to current environments. Neither pole invites further discussion: The first makes it seem that the only questions worth asking are those relative to the rate and incidence of disorganization and declension (Harrison 1994). The second suggests that the future has already arrived with the appearance of the new, adaptive form, and the only development of consequence will be its diffusion (Piore and Sabel 1984; Powell 1990; Pyke and others 1990; Pyke and Sengenberger 1992). Whereas the first view treats the new organizations as almost too monstrous for words, the second hurriedly domesticates them by inclusion in an enlarged bestiary of organizational types. The principles underlying the achievement of superior adaptiveness, and the implications of those principles for our general understanding of the possibilities of economic and political association get therefore short shrift in both cases.

The major disciplines, by which I mean economics and sociology as the direct heirs of 19th century social theory, have taken little note of these developments. The reason is not hard to find: Each thinks, plausibly, that central tenants of its intellectual legacy already endow it with just the categories needed to make sense of the apparent novelties. For economists the relevant legacy is that of Hayek, for sociologists that of Durkheim; and it is to their work that we now turn.

### 3. The Canonical Foundations of Flexibility: Durkheim and Hayek

What joins Durkheim to Hayek and makes them together the *fons et origo* of most contemporary understanding of organizational flexibility is the idea, familiar in the notion of the invisible hand as derived from Mandeville and the Scottish enlightenment, that society and the division of labor progress as collectivities "stumble" upon institutions which are the "result of human action, but not the execution of human design " (Ferguson, cited in (Hodgson 1993, p. 56)). The argument presumes more particularly that knowledge is fragmented among many actors and is essentially practical and tacit in that it effectively directs activity without being available to conscious theoretical reflection; that through association and exchange, groups of actors hit upon rules of conduct that, in the form of custom, habit, moral conviction, or law, guide their joint actions just as tacit, practical knowledge guides their individual actions; and, finally, that competition among groups coordinated by different ensembles of custom and law results in the selection of the most effective coordinating mechanism and thence its diffusion by emulation or direct extension of the fitter form (Gray 1984, pp. 31-34). The evolution of language, money, and market society are, to proponents of these views, all examples of the result of constructive human action without human design.

Born along by the flood tide of late-nineteenth-century thought, Durkheim did not systematically contrast these ideas with other, related notions of social development, but rather assumed them as ingredients in his own conception of evolution. Hayek, writing during the ebb of these ideas from the 1930s to the 1970s was, on the contrary, at pains to distinguish them as the notion of "spontaneous orders" from any conception tainted in his eyes by association with the "fateful conceit" that humans can build what they understand or understand what they build (Hayek 1973; Hayek 1988). To emphasize the involuntary character of these orderly outcomes Hayek insisted on the

distinction, implicit only in the work of Durkheim, between the modern definition of natural phenomena as "wholly independent of human action" and the pre-Enlightenment understanding of the natural, which he sought to revive, as "all those unintended patterns and regularities which we find to exist in human society, and which it is the task of social theory to explain [Hayek, *Studies in Philosophy, Politics, and Economics*, Simon and Schuster, New York, 1969--check U of Chicago, 1967, pp. 97-98]." But stated matter-of-factly or as ontological admonition, these ideas cannot but appeal to an age as baffled as ours by its creations and by the incapacity of central authorities to direct them, and therefore disposed to believe that society in its changing forms is indeed the natural consequence of involuntary acts.

But as suggested at the outset, the explanatory appeal of Durkheim and Hayek derives as much from the differences in their understandings of rule and reflection, and the political resonances of the latter, as from their common motifs. Thus for Durkheim the idea of social constraints, presented, roughly speaking, to individuals in the form of an image of the forms of life that society honors or vilifies, are constitutive of individual identity, economic exchange, and political association. Without substantive and thus limiting images of what is good and honorable to possess, he argued, individuals would literally go mad from ceaseless, insatiable striving. Without shared background understandings of fair dealings, parties would forego contracts promising mutual benefit for fear that, faced with circumstances beyond the letter of the agreement, diverse and self-interested interpretations might put each at the mercy of the other. Finally, and by the same logic, exchanges among trades or professions following rules of their own devising will be paralyzed in the absence of some political institution that harmonizes these rules for purposes of general understanding. Thus the individual cannot exist outside the purview of society as manifested in the family; the individual economic actor is likewise paralyzed outside the occupational association; and the associations would be frozen by mutual wariness without the mediation of the state (Durkheim 1992; Durkheim [1893] 1984). The institutions that provide these enabling constraints are thus the natural outcome of social evolution and the starting point of its continuing advance. For Hayek, in contrast, permissive rules are more important than constraints. In his view individuals have been formed through millennia for the life of exchange; the price system of the market economy furnishes the information they need to add to their local, tacit knowledge, to calculate the possibilities of advantageous dealing; and so long as they obey, and the state secures respect for, the simple rules of property and contract, they can dispose of their affairs in cooperation with others, yet fully protected against the dangers of opportunism. Together these rules are the natural order that issues

from human evolution. In short, we have here, respectively, the bedrocks upon which rest the sociological and social democratic view of flexibility as dependent on a moral frame, and the economic and neo-liberal view of flexibility as requiring no more than enforcement of a short list of fundamental freedoms in transacting.

Nowhere is this interplay of ideas more evident than in Durkheim and Hayek's views of the democratic state. To begin with, both were diffident in the prospects of any form of democracy in which citizens have direct control of their representatives and those representatives, assembled in the legislature, have large powers to determine the law. Tacit knowledge, however inventive it renders the individual in everyday matters, they held, does not capacitate the citizen to decide on matters of general importance whose consequences reach far beyond local experience. Yet both were convinced democrats: Given the indispensably local aspect of practical knowledge, they argued, no central authority, cut off from the popular source of this knowledge, could govern effectively in the interests of the citizens. The answer for both was an elaborate system of representative democracy whose complex machinery would, in a way reflecting their respective political conceptions, protect the state and law from the whims of an uninformed and venal electorate while informing both of the discoveries of individuals and groups in pursuit of their life tasks.

For Hayek this took the form of a tripartite government designed to assure the dominance of law -- the rules of just conduct derived from experience accredited in convention -- over legislation -- efforts to reconstruct society according to the precepts of politically validated reason. The central body would be a kind of common law supreme court confusingly called the legislative assembly. Its purpose in fact would be to assure that the few true acts of legislation voted by the second body -- the governmental assembly -- respected the limits defined by the rules of just conduct registered through case-by-case, common law interpretation of on-going affairs. A constitutional court would mediate conflicts between the two assemblies and thus periodically (amend) the highest-level rules of conduct. To assure the legislative assembly the detachment required for its purpose, Hayek recommended that its members be selected by vote of "mature" citizens aged 45 to 60 (excluding those in government service whose salaries could be influenced by the assembly's decisions), and that service in the chamber be followed by employment as a lay judge, or elsewhere outside the circle of private interests (Bellamy) (Bellamy 1994; Covell 1992; Kley 1994). Hayek's views, and especially his skepticism about the possibility of enacting legislation truly in the public interest, have found much favor in recent years, first in academic writings on public choice

and lately in decisions of the U.S. Supreme Court; and we will return to them below.

Similarly, Durkheim believed in general that "the role of the State, in fact, is not to sum up and express the unreflective thought of the mass of the people but to superimpose on this unreflective thought a more considered thought, which therefore cannot be other than different" (Durkheim 1992, p. 92). The principal agencies of this reflection would be the governing councils of professional associations, themselves reconstituted to eliminate any of the self-regarding traditionalism and artful secrecy remaining from their guild origins. The members of these councils, adept at the practice of the particular occupation yet experienced, through representing its interests to outsiders, in the deliberation of general affairs could serve as electors in choosing representatives to the legislative chamber or even as delegates to it (*ibid.* pp.103-104). In this way the state would be constantly guided in its actions by awareness of the multiple professional ethics that inform practical life in the vast realm between family duties and civic obligations; thus informed the state can use its authority to prevent the involution of any occupational group; but because of the influence on the legislature the latter can protect themselves and the citizens against usurpation by the state.

Durkheim's ideas of fusing occupational corporations and the state so as to order the flow of information between them, and thus to avoid the supposed confusion of party politics informed, or were independently rediscovered in, efforts to construct corporatist states before the Second World War (Hawkins 1994, p. 478 ff.), and in less authoritarian neo-corporatist arrangements that took clear shape principally in the countries of Central and Northern Europe, from the 1960s through the 1980s. As these arrangements, and reflections on them, gave rise to the Durkheimian interpretation of organizational flexibility in firms as well as in society generally, it is to them that look in considering current applications of the canonical ideas.

#### 4. Accounting for Flexibility

As applied first to the general problem of social ordering the neo-corporatist view asserted the effectiveness of tripartite bargaining arrangements in which the peak organizations of capital and labor, under the aegis of the state, reached accommodations on wages and other conditions of employment to create circumstances and expectations favoring sustained growth with low unemployment and stable prices. In one variant such bargaining was treated as an historically specific alternative to Anglo-American systems of less overtly

coordinated bargaining regimes (Czada and Schmidt 1993; Lehmbruch 1993). In another (which was in the ascendant during the period in the 1980s when neo-corporatist arrangements performed best) neo-corporatism was a superior, higher stage of pluralism, and likely to diffuse widely because of its advantages (Czada and Schmidt 1993; Lehmbruch 1993; Schmitter and Streeck 1985; Streeck 1982). In both cases the original efficiency argument was straightforward, and turned out to depend on Durkheimian assumptions.

The efficiency claim was just that multi-lateral or many-faceted bargains increase aggregate welfare more than bi-lateral exchanges of pairs of goods. Bi-lateral exchange occurs when I value the good you offer me in trade more than I value the good I offer in return, and vice versa. Multi-lateral or multi-faceted exchange produces superior results by increasing the chances of finding some bundle of goods on offer which, taken as a whole, produces mutual gains by such a test even though individual components of the bundle taken pair-wise might not. Such extensive trades are possible only on the condition that the bargaining actors have extensive authority over their field of action so that each controls sufficiently many matters of interest to the other as to invite complex compromises, and enduring relations with one another, so that sacrifices in one period can be compensated by gains in another. The acknowledgment by the parties of this relation and the limits it imposes on their freedom of action constitutes precisely the kind of moral frame that Durkheim regarded as the indispensable backdrop to social exchange.

Partly in response to changes in the economy, and partly as a consequence of Hayekian criticism, of which more in a moment, the neo-corporatist argument was reformulated in recent years to emphasize the importance of the bargaining regime in the solution of collective action problems facing firms in the course of reorganization. As Keynesian systems of macro-economic management everywhere came under strain in the last decades, the burden of adjusting to volatile markets has increasingly fallen on firms, often making their very survival dependent on the capacity to adopt forms of organization flexible enough to respond to fluctuating markets; and writers in the neo-corporatist school have been at pains to explain how this can occur, becoming ever more explicitly Durkheim along the way.

The core argument, inspired by German experience, sees in crafts as occupational groups the source of economic flexibility, and makes the existence of moral frame the condition their perpetuation. Crafts are understood in the Durkheimian sense as groups whose combination of theoretical and practical knowledge gives them mastery of a domain of activity, defined as it

were naturally by the progress of the division of labor. Because of this mastery they can accomplish complex tasks given only indicative instructions, blurring the line between conception and execution as they determine the means to realize the given end. This makes them the natural partners of managers who must bring new products to market before there is time to decompose their production into simple steps that can be executed mechanically. The collective action problem concerns training: Each firm wants to benefit from a reservoir of craft workers but hesitates to invest in training for fear that free-riding competitors will hire the trained personnel away. The answer, in the neo-corporatist and Durkheimian view, is a bargaining regime in which (craft) unions are assured a place: Given their enduring presence and their enduring (organizational) interest in preserving the marketable skills of their members as a condition of their own existence, the result will be a system in which one side uses its de facto veto power in bargaining to demand provision of just the good that the other side wants, but is not organized to provide. The further consequence is that firms adopt forms of organization dependent on the availability of skilled workers because they are available, and continue to demand such workers because they depend on them. Thus in Durkheimian fashion, global constraint turns out to be the precondition for the local flexibility upon which, in turn, global movement depends; and because these ideas capture the solidaristic moral tenor of social democracy, while respecting the interests of its chief clienteles in unions and the public sector, Social Democrats hold fast to them as much in accommodating as in resisting changes in firms and the welfare state.

The Hayekian explanations of flexibility, in contrast, are resolutely anti-institutional in that all encompassing frameworks are seen as potentially obstructing the exploration of human possibilities by means of the rules of just conduct, and even, in their political effects, as subversive of those rules themselves. But their anti-institutional resolution aside, Hayekian explanations are more fragmented in that macroscopic views of social organization are seldom so rightly connected to microscopic views of adjustment in firms and other institutions as in Durkheimian accounts. The gap reflects a combination of fissures in the original work (although there is a familiar tension between macro-and micro-institutional strands of Durkheimianism which, of little interest to the neo-corporatists, will concern us later (Collins 1994)), as well as the devil-take-the-hindmost insouciance of those, for the moment, high in history's saddle. Thus at the macroscopic level the Hayekian response has been less positive than critical. It consists mainly in arguments that ring all the changes on the claim that bargaining regimes in which actors are accorded stable places invite self dealing. Of these regimes, in their view, mass

democracy is only the most brazen in encouraging the politicians as the principal actors to out-promise one another in an effort to build a majority that seizes control of the fisc, the better to remunerate itself. Neo-corporatism is accordingly seen as a stealthy means to the same end, and harder to expose because the actors move in the murk beyond the light of public law and parliamentary procedure. These criticisms echo Hayek's original view that the purpose of a constitutional order is just to prevent institutions from getting out of hand by limiting their creation in the first place. But as we will see, incantation of these criticisms does not solve the problems it indicates.

At the microscopic level it is convenient to distinguish Hayekian expectations of flexibility that arise from debates chiefly within economics from those with a sociological provenance. Of the first type, the most important instance is the theory of repeated games; and its broad appeal demonstrates the increasing importance within economics itself of the notion of spontaneous order as against the constructivist view of institutions as deliberately designed by self-interested actors that is asserted in theories of the relation between principals and their agents. Indeed, it seems that the success of the former is due at least as much to the evident limits of the latter as to its own explanatory virtues; but whatever the cause, the effect is to reinforce the hold of the anti-institutionalist view on its home ground.

Consider first principal-agent theory. Its founding ideas are that principals need the assistance of agents to accomplish their projects, but that agents have interests that may diverge from those of their principals, and ways of pursuing those interests that are costly to detect and not immediately disciplined by markets. An indispensable goal of economic organization, therefore, is to devise optimal incentive schemes that align the interests of principals and agents while minimizing the costs of policing the incentive scheme itself. Think of this as a form of micro-institutional constructivism in which the incentive system is the frame that assures cooperation.

The principal recent result in this line of investigation is an impossibility theorem due to Holmstrom. He shows how to devise an incentive plan that moves agents to reveal the true costs of their efforts, thus enabling their principal to calculate the true costs of production and bid on projects accordingly. The flaw is that any such plan also puts the principal in a position to misstate the aggregate costs to the very agents who originally supplied the information, thus depriving them of part of the returns to their effort and destroying their motivation to supply information or to enact agreements in the first place (Miller 1992 provides an excellent summary of the work).<sup>[2]</sup>

Faced with this limit to the possibility of harnessing self-interest to cooperation through institutional design, economists increasingly fall back on the idea of cooperation as the result of self-validating expectations of long-term mutual gains among potential collaborators. This is the theme of the theory of repeated games: If each actor calculates substantial gains from long-term cooperation with the others, and puts a high value on future as against immediate returns, then none will put those returns at risk by defecting opportunistically from current agreements. From this point of view a reputation for fair dealing is the equivalent of a performance bond posted at the beginning of each transaction. The value of the bond equals the expected gains from all future cooperation with fair-dealing partners. If the actor is caught cheating, the bond is forfeit; thus fear enforces fidelity to promises. The limitation of the view, of course, is that cooperation can unravel as quickly as it is woven: Any change in expectations about the likelihood of future dealings, their return (as valued in the present), or the possibilities of undetected cheating -- including, for good measure, changes in estimates of the likelihood of changes in the other estimates (Arthur 1994) -- can abruptly make cheating attractive enough for some of the potential collaborators so that the prospect deters the others from proceeding. Because of this knife-edge character the theory of repeated games has no predictive power: It simply characterizes the actors' motives when they cooperate or when they do not. Assuming, as Hayekians do, that cooperation in the form of spontaneous order is a fact of social life, the theory of repeated games constitutes a re-description of that fact, when it is a fact, rather than an explanation of it by reference to deeper features of human association<sup>[3]</sup> .

The microscopic Hayekian accounts of flexibility do attempt such an explanation by deriving the possibilities and limits of coordination from certain constitutive aspects of human cognition. The fundamental assertion is that you and I as individuals and as a group can do many things without being able to say how, and that in learning and using this tacit knowledge we depend on each other. That we know how to do things beyond our faculties of explicit comprehension is clear from such everyday capacities as picking out a familiar face amidst a crowd or identifying as one's own a certain raincoat in a pile of many. In neither case can we state the algorithm by which we detect the distinguishing particulars among the common features; yet no one doubts our ability to recognize patterns, even if neither we nor anyone else can say how. The ability to distinguish the patterns pertinent to any area of practical activity is just another name for skill in that activity; and the acquisition of such skill, the argument continues, occurs in the same wordless realm as its exercise: Teachers instruct us in these tasks by performing them, asking us to imitate their actions, and informing us when our performance deviates from theirs.

Through this training by ostention or showing we acquire the ability to evaluate and guide our own actions according to the criteria guiding the teacher's. Eventually, applying what we have learned to new circumstances, we may hit upon new ways of doing things or recognize previously unnoticed patterns. But even when these discoveries increase our control of the world or our ability to capture it in formalisms, we are no more able than our teachers to state the evaluative principles and cognitive regularities leading to our discovery, nor those that ought to lead on from it. Thought progresses, but never in a way that allows explicit knowledge of its motor mechanism (Polanyi 1962, passim, esp. pp. 92-94).

Cooperative social life is thus possible and necessary because in pursuing our own goals we can and must count on the tacit knowledge of others, expressed in skills whose motor principles cannot be explicated. The persuasiveness of this tacit knowledge commends to all of us, with respect to ourselves, and to groups, with respect to their members, the same humility that the state and the citizens' representatives should exhibit with respect to the people in the macroscopic view: Just as the state must defer, through democracy, to the superiority of local, practical knowledge as against the theoretical knowledge of the elites in legislative chambers, so individuals and groups must defer to the deep forms of sociability or conviviality out of which cognition grows, never concluding that the ability to do something accords the right to say in detail how it should be done. Conversely, just as the people needs the state to register the rules of conduct that emerge from and best structure exchange, so individuals and groups -- especially groups of individuals engaged in the same activity -- have need of teachers whose masterly performances register and transmit by ostention the rules of good conduct governing each skill. Spontaneous order thus becomes a shorthand for a characterization of cognition according to which we make our way in the world together, so long as those in authority -- teaching or managing practical activity -- never pretend to understand fully that they know what they are doing, and so long as those directly engaged in the activity respect the authority of those who can do better.

Empirical Hayekian investigations of flexibility focus, accordingly, on the disposition and precise embodiment of the tacit knowledge of individuals and groups such that these latter can perform tasks beyond the capacity, indeed beyond the powers of explicit comprehension of any single member. The simplest setting is the traditional craft, where the product and production processes are largely fixed, and individual tasks, although demanding, are so well defined that they can be learned through attentive repetition. In this case the acquisition and exercise of mastery is almost literally wordless. In the flute

factory studied by Cook and Yanow, for example, a skilled worker performs a narrow but demanding task, such as attaching a part of the key mechanism, and passes the workpiece to the next specialist. Anyone dissatisfied with prior work returns it to the person who performed it, saying only "It doesn't feel right" or "This bit doesn't look quite right." The piece is then reworked until it feels right. More exact exchanges are impossible, not least because many of the dimensions and tolerances of the flutes have never been accurately measured; and even those that have are not reference points in daily operations. "Yet," the authors observe, "the extremely precise standards of the instruments, on which the flute's ultimate style and quality depend, have been maintained through just these sorts of individual and mutual judgments of hand and eye." Apprenticeship in the factory consisted in sitting at a workbench, performing one of the manufacturing steps, and learning to judge one's own work by observing a master's judgments of the original effort and subsequent reworking. In time the apprentice learns to judge not only his or her own work, but also the quality of work done by others, and is then ready to take a place in the production line (Cook and Yanow 1993, citation from p 80. ).

In more complex settings, where the environment is constantly changing and routines must constantly be adapted to new circumstances, words do come into play in Hayekian accounts of flexibility, but principally to link disparate stores of tacit knowledge and to convey their contents in a form that respects the limits of its formalizability. In the customer-service department of a large photo-copier manufacturer studied by Orr, for instance, no one has knowledge of all machine breakdowns, but someone has knowledge of each. Stories told during irregular meetings around the proverbial water cooler conserve the tacit knowledge in the telling by emplotting it: The solution and the way leading to the solution are fused into a single narrative that evokes analogous explorations on the listener's part without pretending to render that experience superfluous. It is these stories, and not the (unread) technical manuals prepared by the company, that actually guide technicians in the solution of problems. Technicians with the most and richest stories to tell are recognized as teachers by the others; learners or apprentices, conversely, are defined as persons who may legitimately listen to these stories without being expected to catch and apply more than the smallest part of the instruction conveyed (Orr 1990).

Likewise, the connection of tacit knowledge allows the almost miraculously safe operation of the flight deck of aircraft-carriers studied by Roberts et al. In this high-velocity setting, complex aircraft, air-navigation, ordinance, and nuclear power systems are constantly being reconnected in ways that could transmit disturbances in one into cascading disturbances in the others. The

reason such disastrous cascades are infrequent is that decision making is both highly specialized and localized. Each person on the flight deck has a precisely defined role and is expected to carry out the tasks included in that role together with specialists in complementary tasks. Anyone with immediate responsibility for a task can halt its execution without consulting superiors, and solely on the basis of an estimate of potential danger. The saying is, "You own a problem until you solve it or find someone who can." Training consists of learning one's own task in relation to the complementary activities so that one's continuous, real-time narrative of the current status of operations will be immediately understandable to other participants and vice versa. As long as these representations mesh, members of the flight-deck crew exercise their local authority with confidence, relying on others to do the same, and operations proceed safely even though no one can provide a full account of his or her criteria of judgment, let alone a comprehensive, official listing of what needs to be done for everything to go well. The more firms must become completely reliable with regard to any particular performance criteria, the more pertinent such analysis becomes for understanding the organizational preconditions for competitive success (Eisenhardt 1993; Rochlin and others 1987; Weik 1986).

All of this is unflinchingly anti-institutional. Like the Durkheimians, the Hayekians see practical activities as clustering to form a natural division of labor: Skills, for both, consist of the tacit knowledge required for performance in each cluster. Unless the natural boundaries among skills are established and maintained by organizational intervention -- the creation of the occupational associations for the Durkheimians, the likes of the bos'n for the Hayekians -- specialization cannot take its natural course.

But whereas for the Durkheimians the institutions thus created are the support and anchor for the encompassing system of self-restraint that society requires to explore its possibilities, such organizational interventions are, for Hayekians, potentially as intrusively constraining as the state itself. Just as they are at pains to create a state that registers practice through incremental adjudication rather than regulating it by legislation, so they are at pains to channel economic activity not by formalizing it but rather by organizing informally. At the limit this view issues in an attack on organizational fixity of any kind, for any fixed distribution of authority, like legislative control of the fisc, invites self serving by those who feel secure from reprisals. In the work of Tom Peters, an influential consultant, for example, good management consists largely in knowing how and when to abandon or side-step existing structures so as to give the free play of ideas a chance to do its innovative work unencumbered by institutional restraint. His "theory" of organization becomes consequently a

collection of stories -- like those of the copier service crew -- about overcoming rigidity in many particular settings (Peters 1987).

But a figure more representative of Hayekian efforts to conciliate formality and informality is Chester Barnard, a thoughtful manager of New Jersey Bell in the 1930s and '40s whose *Functions of the Executive* is one of the classics of US managerialism (Barnard 1968). The role of executives as he saw it is twofold. The first is to establish the firm's long-term strategic objectives. But as these were always so general and incomplete as to require continual modification as they are applied, and as their application depends crucially on the efforts of informal work groups operating at the margins of the firms' organizational charts, the second role of the executive is to encourage the formation and operation of the informal groups, finding in each case the right combination of exhortation and inducements to create a symbiosis between their activities and those of the formal organization. It is perhaps an indication of the underlying unity of the Hayekian perspective on flexibility that an astute observer in this tradition can begin with the micro-constructivist analysis of principal-agent theory, acknowledge its limits as revealed in Holmstrom's impossibility theorem, pass on to the theory of repeated games only to discover its inconclusiveness -- and thence the need for a theory of managerialism in the style of Barnard to explain that and how cooperation with many features of spontaneity can be orchestrated and maintained even when it does not emerge spontaneously (Miller 1992).

Here, then, is where things stand in a stand-off that, with a subtlety of variation only hinted at above, has already lasted decades. For much of that time each side has ignored the other, formulating arguments that suppose the only opponent truly worthy of a response is the one unaddressed; or, failing this, each used its criticisms of the other as a proof of its own validity, again on the assumption that the truth was nowhere if not in the contention between them.

In recent years, however, the balance of disdain has changed. With the fall of the Wall the Hayekians can be more obstinate in their silence and more confident in regarding the defects of the contrary position as a validation of their own. As economic restructuring has proceeded, putting strain, as we shall see, on industrial relations and vocational training even in the most successful of the neo-corporatist economies of the 1980s, the Durkheimians feel threatened in their home territories. In response to the increasingly strident criticism and the disorienting reversals of fortune, they have become shrill themselves.

Thus the Durkheimians deny that there is any intrinsic shortcoming to the institutional framework of solidarity as they conceptualize it. General problems in the performance of the neo-corporatist economies, such as the defection of firms and employees from their respective trade associations are sometimes explained as the result of increased capital mobility: Drawn by the prospect of easy profits in new markets, firms abandon the regulated territory of home, thus undoing the institutional solution to the collective action problems, causing others to follow suit, and so undoing the mechanism on which the perpetuation of the Durkheimian system is based. Yet there are few signs that capital mobility as increased in recent decades with respect to earlier periods (Notermans 1003); and there are important instances, to which we will return later, where the opening of borders and the possibility for form shopping has led to more, not less, demanding regulation (Eichener 1993). Or they argue that neo-corporatist distress is the result of unfair competition: The new forms of organization, inspired by Japanese success, it is claimed, depend on employees' self-abnegating devotion to the good of the firm. Such devotion offends the dignity of craft workers, habituated to the (Durkheimian) moral of the realization of self within a community supervised by an occupational association, itself under the democratic control of members. So offensive are the new methods that emulation is inconceivable as a matter of emotional economy, and morally dubious in any case (Streeck 1993). But these methods are on any account diffusing rapidly, and not least in neo-corporatist countries with strong craft traditions (Schumann and others 1994); so the Durkheimians who make this claim are wrong about the moral character of the new methods or the moral fiber of craft workers--or have to show why the apparent diffusion of the new methods is really better understood as their domestication to the world of Durkheimian moral.

No matter. The new stridency and shrillness in the stand-off changes nothing in its stationary character. From the point of view of the old contention, the only novelty of recent decades is the emergence of new evidence that may, or may not, finally tip the scales in the familiar controversy.

But this exchange misses the point. Neither the contrasting preferences for encompassing, constraining institutions secured in legislation as against permissive rules of conduct worked in the filigree of case law, nor the common insistence on the tacit character of practical activity as establishing complementary limits to what the actors can know of themselves and their representatives of those they represent -- none of this squares with the distinctive features of the new economic organizations. These depend on an institutional framework that is much more intrusive in its formal regulation of

cooperation than any system of rules sanctioned in the Hayekian view; yet far from fixing the jurisdictional boundaries and identities of the actors in an enduring bargaining scheme, as in the Durkheimian understanding of an institutional archimedean point that permits change yet is itself unchanging, this framework allows the actors constantly to re-examine their mutual relations as well as their internal constitution: to change, in concert, their identities rather than to conserve them. The new kind of framework can do all this precisely by allowing the actors to make explicit, through deliberate, joint re-evaluation of the ends and means they set themselves. Or, so, in any case, I argue next.

## 5. The Pragmatic Frame of the Modern Firm

Recall that the modern, flexible firm was defined at the outset as a federation of work groups in which goals and the relation among the teams set by the collaborators as a group are redefined as each pursues tasks derived from the original conception. It is this iterated goal setting that is intended by reference to the frame of the firm; and to see how it contravenes Durkheimian and Hayekian expectations, we need to add detail to the spare characterization provided until now. I omit consideration of this frame in relation to governance aspects: the monitoring institutions and incentives intended to assure that those controlling the factors of production are motivated to disclose and apply the information supposed by the method of goal-setting, whatever it is. For one thing, the focus here is on the distinctiveness of the method, not the incentives or the full range of institutions supervising their application. For another, what is diffusing rapidly is the new discipline of organization, not a particular model, Japanese or otherwise, of organizing boards of directors, compensating managers or other employees, or providing corporate finance. That the new discipline can diffuse without the paraphernalia of any particular governance regime suggests that the former is, if not wholly self governing, then at least sufficiently self controlling to be compatible with a variety of the latter; and we shall return to this point presently.

The common feature of the production and organizational disciplines which together form the system of goal setting is the use of carefully constructed comparisons to reveal and force evaluation of possibilities and to assess progress towards and eventually the feasibility of realizing the ones that are chosen. Thus general projects -- and we stick with the construction of a new model car as the example -- is done by benchmarking: the decomposition of the best of the currently available models of the same type as the proposed one into their constituent parts, and the recomposition of these parts, informed and

enriched by consideration of potential developments not yet embodied in any product on the market, into a first specification of the new design.

This initial rendition is then further specified by simultaneous engineering. Conventional design is sequential: Components or subsystems -- the car platform or chassis and body, the motor, power train, heating, cooling, and ventilation systems, and so on -- are presumed to be more or less central to the project at hand. Those ranked as most central are fixed in detail first, and their specifications set the boundary conditions for the design of the lower ranking subsystems. In simultaneous design, separate project teams elaborate all the subsystems concurrently, applying to that task the same kind of evaluation of competitors' successful efforts and developmental possibilities used to benchmark the initial design as a whole. This produces a dense cross-hatching of comparisons. First and obviously, each subsystem or component is defined with respect to a family of near variants, and must meet the performance standards of some mixture of those. But second, and less conspicuously, concurrent efforts to incorporate multiple, often competing desiderata into each subsystem produce a flood of proposals for improving the overall design in whole or part. This is because innovations in any subsystem are often possible only on condition that adjoining subsystems be modified in a corresponding way. Thus efforts to improve the performance of the parts compel comparison of more or less extensive suggestions for revisions of the whole, and so make tractable the evaluation of possibilities that might never have come to light proceeding sequentially.

Once designs have been fixed to this extent comparison proceeds by definition of targets and monitoring their achievement. The same process that allows firms and their internal or external suppliers to agree on the definition of a subsystem or its components allows joint evaluation of target prices and a target rate of productivity improvement to be expressed in periodic price decreases. Actual performance can thus be compared with expected performance at any moment, and divergences analyzed against the backdrop of the extensive common knowledge of possibilities that allowed agreement on the goals in the first place.

Just-in-time production, in which buffer inventories between operations are stripped out so that production proceeds in effect one workpiece at a time, allows translation of these general and periodic targets into performance measures that can be continuously monitored. With just-in-time production defects are detected as they occur because a defect introduced at one station disrupts operations at the next in line. The source of the defect must be

identified and eliminated if production is to proceed. Once production is stabilized at any level of output, therefore, successive increases in line speed reveal and allow reorganization of the most error-prone operations at any given throughput. Thus just-in-time, in effect, provides a comparison of the actual robustness of production against a standard derived from the performance targets.

Operating together these new disciplines overturn the verities of the earlier mass-production system, transforming the competing desiderata of that world into mutually reinforcing attributes of the new one. Thus in mass production decrease in efficiency was the price for an increase quality: greater attention to accuracy seemed inevitably to reduce the throughput of the system per unit time, and thus to decrease its productivity. But in learning by monitoring increasing demands on quality are used to reveal defects in the organization of production that would have remained hidden under less exigent conditions; and correction of these defects cumulatively reveals possibilities for raising efficiency --through minimizing downtime due to repairs, through the introduction of delicate automation equipment whose operation depends on maintenance of tight tolerances, through reduction in the rework of botched products--unavailable in an environment more tolerant of fault. Similarly, it counted as a truism of the older methods that exploration of many design alternatives hindered timely and rigorous pursuit of any one. Simultaneous engineering shows that pursuit of many alternatives is the best way of understanding the advantages of disadvantages of each; so exploration of many contributes to selection of the best of current possibilities.

Even this scant detail is sufficient to show the divergence between the new form of collaboration and the Hayekian idea of minimally formalized flexibility on the one hand and the Durkheimian notion of the encompassing frame on the other. There is, to begin with, simply too much institutional machinery in the new system to square with the Hayekian image of coordination through a short list of rules of good conduct. The cross-hatching comparisons specify not just what each actor may do to accomplish a task, but precisely what the outcome should be, how, and even with what changing rhythms it must be performed. Put another way, the comparisons and the targets in which they result specify not the boundary conditions on activity--the way it is to be conducted--but the activity or conduct itself. The pooling of information and joint articulation of understandings which spring from and flow into these comparisons, moreover, have nothing to do with either the nearly wordless collaboration of the simplest, craft forms of Hayekian flexibility, nor with the anecdotal connection among stores of knowledge in its more complex variants.

But neither is it Durkheimian. The definition of new designs goes hand in hand with the definition of new organizational arrangements to realize them. For the joint product of the constant re-elaboration of the goals of the collaboration is respecification of the means, and in particular the relations among the parties, or even their continued participation in production. Recall that the work groups or project teams, whatever their formal legal status, are entitled to determine their internal organization and the source of the services and intermediate goods they use as inputs. That means that as new possibilities are revealed through benchmarking and simultaneous engineering, and as shortfalls in performance come to light in missed targets or failures of just-in-time production the continued participation of collaborators who fail to meet expectations is in question. How precisely such a question is resolved in particular settings is for present purposes less significant than the stark fact that it is the very essence of the system of goal determination to ask continually whether it should be raised. For to think of asking it at all, and -- still more -- to always be asking whether the question is worth raising -- is to discard the fundamental Durkheimian assumption that a secure place in the production system, as reflected by an unquestionable guarantee of representation in the bargaining regime that regulates it, is the precondition of flexibility.

This disaccord between the canonical views and the new disciplines arises from a fundamental difference in the characterization of practical knowledge. For both canonical views, we saw such knowledge is tacit: the actors are sure of what they do, but cannot say how. To be effective in complex exchanges this knowledge has to be complemented by rules of good conduct that fix and regulate relations among the jurisdictions within which various types of tacit understanding are developed. These rules too have their origins in mute experience; but once formulated they are distinct from the activity at their source: the rules are, precisely, the framework of flexibility, and not instructions in the practical activity of adjustment itself. Representative democracy broadly understood is the mechanism by which the most general results of tacit investigations are rendered public in a form that guides further exploration without infringing its taciturnity. In mastering tacit knowledge of particular activities and respecting the rules of good conduct actors know automatically how to respond to particular circumstances, although they can not infer either from the other. Thus they inhabit a world in which the relation between the practical activity of the self and the development of society is mysterious, yet this mystery never provokes self doubt in the sense of hesitation in the face of ambiguous situations. The idea of a spontaneous order captures both this somnambular purposiveness and its achievements.

Against this dualism of practice that cannot be captured in theory and rules that cannot directly instruct practice, the new disciplines suppose a single kind of knowledge often called practical reason. It is ruly but ambiguous: ruly in that it is governed by regularities known to the actors, or accessible to them upon reflection, and ambiguous because the regularities are too imprecise to be applied in particular circumstances without interpretive elaboration. Language as described in the work of Davidson and others is a model for such reason (Davidson 1985; Putnam 1994). A language is an ensemble of conventions regarding syntax and semantics. Shared rules of grammar and common, core understandings of the entries in a dictionary define a speech community. But these regularities make mutual comprehension possible, not automatic. The meaning of individual utterances depend so crucially on the circumstances in which they are pronounced, and particularly on the way such pronouncements draw upon and modify core understandings, that it is only in discussion, as the participants take turns proposing, criticizing, and recasting various interpretations of what each says, that the sayings acquire determinate meaning. These determinations, moreover, may call into question the discussants' habitual or unreflective usages, and by founding new conventions prompt revision of the very regularities that got communication going in the first place. Thus, precisely because the theoretical rules guide practical activity yet do so ambiguously, practice gives rise to theoretical reflections whose practical outcome may be the revision of the theory itself.

Pragmatism is the branch of philosophy and social theory that treats language as discursive in this sense and all social activity as linguistic.<sup>[4]</sup> It is at bottom a theory of the relation between means and ends, where ends take the place of theory in practical reason, means the place of practice, and their relation, again as in practical reason, is one of reciprocal or mutual causality as a consequence, in turn, of the ambiguities of each. In pragmatism it is only in pursuing our ends, be they projects of administrative reform or efforts to explain the natural world, that we come to understand the implications of the original goal or idea; and this experimental understanding furnishes the knowledge with which we revise or abandon that first declaration of intent, and set the stage for further experimentation. The more explicit and self-conscious the connection between the fixing of ends and the determination of means, the more we learn about the suitability of the relation between them and so the more we learn of the previously obscure implications of our intentions. In pragmatism we cannot know anything, let alone everything, for sure. There is no equivalent to the tacitly (correct) knowledge of how to respond to particular practical situations, nor accretion, through the operation of the machinery of state or of laboratory science, of, respectively, indubitably correct, foundational rules for

coordinating social activity or understanding the natural world. There is only the prospect of learning and learning anew through reciprocal modification of means and ends, how to achieve purposes whose very definition is shaped by that process itself.

The method of disciplined comparison that defines the core of the new firm can thus be seen as an institutionalization of practical reason: a pragmatic method of economic coordination. Like pragmatism, the new economic organizations assume the arbitrariness and ambiguity of goals. Hence projects are initially fixed through benchmarking, in which the decomposition of current products and extrapolation of developmental tendencies is used provisionally to define the general features of a desirable outcome. Like pragmatism the new organizations assume the corrigibility of ends through experimental efforts to realize them. Hence original designs are revised through simultaneous engineering, and the results further modified through continuous discussion of how to attain price and production targets. Finally, like pragmatism, the new organizations assume that the rules coordinating activity are as subject to revision through experience as the goals of the activity itself. Hence discussion of (re)organization is part and parcel of the discussion of redefinition of means and ends in particular projects, and the cumulative result of a series of projects is an organization better able to identify and pursue promising tasks.

Indeed, the institutionalized application of pragmatic principles in the new organizations radicalizes and extends them. Pragmatism assumes a world in which theory and practice are largely in accordance: It is only at the margin of experience, where reliance on familiar expectations produces surprising results that re-evaluation of means and ends is open to discussion. Even, or rather most especially, scientific experimentation holds a vast corpus of beliefs about the world fixed in the background in order to evaluate particular questionable claims. The new organizations, in comparison, take less for granted. Benchmarking, simultaneous engineering, and targeting are ways of acknowledging that a project group can not even assume knowledge of the potential choices it faces in designing and manufacturing a new product. The purpose of the comparisons is just to compel consideration of unsuspected possibilities. Think of these comparisons as a kind of experiment before the experiment, designed to select prospects worthy of further, experimental consideration. In this sense the new organizations actually create or widen the reach of the ambiguity they assume. By the same token, through continuous reorganization of relations among and within the units experimenting with the emergent project they improve their possibilities of making use of the conclusions drawn from self-induced surprise, and so the chances of managing

still wider ranging comparisons in the next round. They thus systematically reduce the chance that habit or complacency will blind the actors to new possibilities, and increase their ability to respond effectively to the opportunities that heightened wariness reveals. In deliberately extending pragmatic questioning of assumptions while facilitating a pragmatic investigation of the ambiguity this questioning these institutions constitute a new and novel pragmatism.[5]

The suppleness of this new pragmatic coordination surmounts an underlying self-limitation of craft organization. For both Durkheimians and Hayekians, we saw, explanations of economic flexibility are tied directly to the notion of craft, where that term refers both to the natural grouping of tacit knowledge into the internally coherent activities that together constitute the division of labor, and (explicitly for the Durkheimians, implicitly for the Hayekians) to those boundaries among activities that require regulation through rules of good conduct. But as competition in recent years between craft-based firms and those employing the new comparative disciplines shows, craft is self limiting in that it obstructs the flow of the local knowledge whose generation it encourages. This is because the acquisition of craft skill goes hand in hand with the formation of hierarchies and jurisdictional distinctions that hamper cooperation among craft workers. Just as masters teach apprentices, so those with the most skill have responsibility for supervising the less skilled and for solution of the most demanding tasks. But this principle is at odds with an institutional logic that calls on work groups to use their local knowledge to solve local problems directly. In firms making the transition from the old production methods to the new, for example, skilled supervisors frequently reject solutions proposed by teams of less experienced employees as an insolent usurpation of their authority. Similarly, mastery of one craft--precision mechanics, for example--results in such confidence in problem-solving that one naturally attempts to solve problems arising at the boundary between one's own specialty and the next--say, electronics. When specialists on both sides of a craft boundary claim to be able to generalize their skills across the borderland, the result is a horizontal conflict analogous to the vertical clash between superiors and subordinates in the same specialty.

Under these circumstances the choice between Durkheimian formalization of the boundaries in institutionalized bargaining regimes and informal supervision of them by Hayekian managers is a choice between the devil and the deep blue sea. The first leads to trench warfare: constant battles over the reform of training curricula, or about acceptable ways of linking bargaining at the level of the new teams with all the established higher levels of the bargaining regime.

So severe are these problems that newly established subsidiaries of German firms operating in North or South America, or even in the former East Germany, frequently train workers directly in project teams rather than having them pass through and acquire the conflictual dispositions associated with apprenticeship.

The shortcomings of informality are manifest less in open conflict than in a wariness about discussion of processes and products that amounts at the limit to information hoarding. Consider, for one example of the limits of informality, the current experience of the US high-tech entrepreneur who identifies a need that potential customers typically cannot specify with accuracy, builds a prototype of a device to meet it, and starts production in a garage; for another, take the owner-operator of the small Italian firm. These artisans acquire the practical and theoretical knowledge of a specific area typical of the craft worker, but without serving a formal apprenticeship, and without, therefore, forming an identity tied to a particular craft community that distinguishes, say, the German prototype. The entrepreneurialism of the Italian small-firm owner, however, is more connected to activity within a certain branch of industry than that of his or her (American) high-tech counterpart, and regarded correspondingly less as a vocation for problem-solving or limit breaking. Hence a figure that is more free ranging and entrepreneurial than the craft worker but more self consciously rooted in the particulars of place and practice than the US entrepreneur

Economic autonomy in both cases is conceived as depending on safeguarding a throve of "proprietary" knowledge: the austicities or craft secrets of production in the case of the artisan firm, patentable or potentially patentable knowledge in the case of the startup. As it is never clear just which remark spills the beans to a knowledgeable interlocutor, it is better to say too little than too much. As the pace of innovation increases and collaboration becomes more intimate, however, discussion of choices affecting both parties becomes more and more dependent on precise characterization of both activities and developments. Such characterization appears suspiciously invasive to artisans and entrepreneurs. At worst they worry about abetting their own expropriation. At best they are concerned lest the formalization of procedures that makes them more intelligible to outsiders also entrenches current practices, and so undermines the flexibility crucial to their success. Italian suppliers currently struggling to meet the demands of large customers worry revealingly, for example, that formalization will transform them from supple artisans to rigid "industrial" firms whose clumsiness opened the door to their own earlier agile success. Progress thus seems to require a self-defeating self-denial; and

analogous problems beset specialized suppliers elsewhere who are equally baffled by customers insisting on partners willing to assume greater responsibility in the co-design of products, but willing also to submit to closer scrutiny of their efforts.

The resolution of the dilemma is, the foregoing suggests, a form of coordination that formalizes dealings among specialist groups so as to make precise, joint determination of activity possible but does not entrench or naturalize -- in the pre-Enlightenment sense of creating evolutionary artifacts inaccessible to human control -- the current boundaries between the groups or the institutions regulating those boundaries. And this is of course just what the new pragmatic institutions do: In obliging the collaborators repeatedly to justify with regard to the project at hand both their internal organization and their relations to each other they create a production system that oscillates between determining a division of labor for itself and reconsidering that determination in the light of execution. These partial reconsiderations do not eliminate the ambiguity inherent in social activity by bringing to the fore and formalizing all the background knowledge, implicit know-how and inarticulate pre-understanding by which that activity is informed. But competing interpretations of any particular action or task can be evaluated by the collaborators according to criteria and at the level of resolution they determine; and these same evaluations undermine any once-and-for-all definition of organizational units by reference to the tools and materials they deploy. Hence there is no place here for tacit knowledge, defined as know-how that defies discussion, nor for crafts or artisan firms as the repository of such ineffable know-how.

No wonder, then, that employees or suppliers in such systems appear unskilled and servile from a Durkheimian, and particularly from a German perspective: They lack the thorough knowledge of particular, technically defined areas characteristic of craft workers, and their abilities seem so tied to the idiosyncrasies of the organizations in which they work as to make them subservient to the latter. But they are neither unskilled nor servile. Rather their knowledge is a distinctive kind that blends attention to technical detail, features of the group and its members, and the organizations to which these are connected as changing understanding of the tasks at hand and effective means of prosecuting them suggest. Their master skill is the ability to solve problems in groups, where the reorganization of the group and its relation to others can be part of the solution. In the US persons with this skill are frequently called technicians. Their defining characteristic is the ability to combine the ability to manipulate tools and machines typical of the manual worker with the organizational abilities of the manager and the capacity to bring abstractions to

bear in the resolution of clinical problems associated with the professional; and they are the fastest growing category in the census of occupations.

The same connection between performance and evaluation that allows the pragmatic institutions of learning by monitoring to overcome the limits of craft also make these institutions partially self governing, and thus helps explain the diffusion of the new forms even in the absence of a comprehensive system that reconciles the interests of all those collaborating in the provision of factors of production. To see the advantages of the new system it is again useful to start with the shortcomings of the current ones, and in particular at the defects of the most basic instruments for regulating cooperation as these are conceived in the canonical theory.

In the principal-agent variant of the Hayekian world that instrument is the contract. The presumption is that each actor knows its own situation and capabilities well enough to perform its promises without further exchanges with others engaged in complementary activities, provided only the incentives to do so; and the contract simply records the promise and the consideration in return for which it is given. As we saw, the impossibility of defining the incentives and the recognition that performance is hard to specify because it depends on informal conviviality lead Hayekians away from this spare textualism; and passing to cooperation based on reputation, then to the management of informality by dedicated executives, they come close to sacrificing (legal) order as the price of safeguarding the spontaneity that gives association its value. Thus for Hayekians cooperation is legally embodied in contracts that say what they mean, and all that needs to be said--or not given legal form at all.

The Durkheimians, we know, acknowledge the impossibility of specifying all contingencies in complex joint efforts. Hence they view as unwieldy efforts to govern by standard contract the long-term relations between, say, large firms and the suppliers that are subject to unforeseeable changes in prices of raw materials or in technology. The remedy is to provide rules within the contractual apparatus itself for arbitrating disputes arising from conflicting interpretations of the agreement. Agreements with such provisions are relational contracts. They create among firms the same kind of inclusive and stable bargaining regime that neo-corporatism creates at the level of the society as a whole, or the industrial relations system creates within branches; indeed, the very notion of a relational contract was originally defined in analogy to constitutional or dispute-resolution regime created in collective bargaining agreements. Their limit, of course, is that in fixing the bargaining regime through the definition of the parties' rights to participation they implicitly

restrict the outcomes of bargaining to those that respect these rights. But in a turbulent world almost any substantive change may have long-term effects on the vitality of one or another of the participants; and constant arbitration of current disputes mindful of this threat soon produces a web of precedents that binds adjudication of disputes. making it impossible to resolve fundamental disputes without infringing the understandings on which the bargaining regime is founded. The turmoil in collective bargaining and customer-supplier arrangements referred to in passing above is evidence of the limitations of these arrangements under current conditions.

In learning by monitoring, the gap between promise and performance is so reduced by the exchange of information that differences of perspective are detected, and, in theory, translated into organizational adjustment before they harden into differences of interpretation and thence into disputes requiring arbitration between parties with fixed identities to defend. "Long term supply agreements" of the kind now proliferating through US industry, in fact, specify *only* the forms of information exchange and, unlike the relational contracts they succeed, create no separate machinery of dispute resolution. Examples of the relevant types of information exchanges are presented in exhibit I, which synthesizes provisions currently found in manufacturers supply agreements in 50 firms in the US state of Wisconsin; their experience is especially pertinent because a quarter of a century ago the contracting practices of these very firms informed the line of research that arrived at the idea of the relational contracts (Macaulay [1963] 1992; Macneil 1978; Macneil 1985).

### Exhibit 1

#### Long-term Supply Contract

##### 3. Supplier commits to

- a. Deliver consistent quality parts which comply with Purchaser's specifications.
- b. Work with purchaser to implement a just-in-time delivery program.
- c. Work with purchaser on future development of prototype designs.
- d. Actively pursue cost reductions.

- e. Establish Statistical Operator Control Programs, Reduction of Inventory, Improvement of Delivery Performance, and Dedication of Capacity to Purchaser.
  - f. Hold pricing firm for the term of agreement except for metal market changes.
  - g. Absorb setup costs.
  - h. Provide Cost Breakdown Information.
4. Purchaser pledges to uphold and fortify supplier's desire for dedicating a work cell to purchaser's production.
  5. The parties agree to work together to develop efficient packaging and transportation.
  6. At specified times throughout each year supplier and purchaser will meet to review performance against stated objectives. Objectives will be revised or reconfirmed throughout the term of the agreement. The parties will openly share information about costs and savings incurred under this agreement and develop means for equitably sharing those savings.' "

(Esser 1993, p. 53)

Because they are in this sense self-governing or policing these arrangements allow parties with little or no prior dealings to begin collaborating without exposing themselves to the mutual vulnerabilities normally associated with joint ventures. As the definition of the task allows each to assess whether and how the others will perform, and further establishes mutually intelligible measures of that performance and how to divide proceeds from it, there is no need to rely on the (unfeasible) design of optimal incentive contracts, as in principal-agent theory, or (easily undone) reputational constraints, as suggested by game theory, or the creation of a (brittle) institutional framework for cooperation, as suggestion by Durkheimianism, in order to begin transactions. Rather the new disciplines act as a kind of information equalizing or symmetricizing apparatus by use of which the potential collaborators jointly form and revise assumptions about what is possible and desirable to do together. This joint creation of information and the reciprocal evaluation of performance that it makes possible explains the otherwise puzzling fact that pragmatic institutions are diffusing both in established industrial regions, where reputations and bargaining regimes are in tatters, and in newly industrializing economies, where they barely exist (Humphrey 1995; Kaplinsky 1994).

But to say that learning-by-monitoring institutions are partially self-governing is to say only that they depend in their initial operation less than commonly supposed on features of the environment often taken as preconditions of cooperation. It is not to say they automatically provide all the self-correcting and -adjusting features of a fully fledged governance system as defined earlier. Suppose, for example, that all investment decisions regarding activity in a particular line of business result directly or indirectly from decisions taken according to the new design and production methods. Then, whatever the formal arrangements, the parties to those decisions are in control of that line of business and constitute in the normal course of affairs its governance structure. But it is unclear how such decision-making can be brought to bear on questions regarding entry into new lines of business, acquisitions of firms or parts of firms in current or prospective areas of activity, or in response to takeover bids by others. From this perspective current governance structures may amount to an interregnum: the old apparatus of boards of directors and the like is elastic and permissive enough to allow extensive experimentation with the new disciplines of coordinated decentralization, but it is unclear whether they are capable of judging situations where those disciplines are silent, and if not, how precisely a successor form of governance is to be organized. Investigation of the further, fundamental disruptions to be caused by the spread of the new methods in the core of the economy could well begin by looking more deeply into this interregnum.

But here we take a different course. Ideas of economic flexibility are, we saw closely tied in the canonical views to ideas of the state and representative democracy. Inadequacies of understanding in the one realm suggest inadequacies in the other; and to further explore the distinctive differences between experimentalism and canonical views we therefore extend the juxtaposition and show how the new pragmatism suggests a radical reconceptualization of representative democracy. To do that it is necessary to retell briefly the story of the modern democratic state in a way that underscores how its development and the idiom of debate about its prospects have come to dovetail with what we have seen so far in the economy.

## 6. Design, Deliberation, and Democracy

Since the beginning of this century democratic states have borrowed administrative techniques pioneered or perfected in the great, centralized corporations to regulate the behavior of those corporations themselves or to mitigate through provision of various kinds of insurance the effects of their operation on the citizenry. Today that citizenry everywhere has second

thoughts about the efficiency and legitimacy of this administrative state. The rules it makes often seem to hinder, not encourage, the pursuit of well-being by firms and individuals; the services and insurance it provides often seem to go to those who neither need nor ought to be entitled to it, or to be provided ineffectively to those who do and are. Whether this misrule results from corruption of the institutions of representative democracy -- the legislature first and foremost -- by moneyed interests, from the deformation of those institutions through misguided efforts to apply them in combination with administrative techniques to purposes for which neither is suited, or from both causes together, is one of the great questions of our day. But however divided opinion is on this question, there is a common restorative element in the contrary efforts at reform: Representative democracy is in jeopardy, and representative democracy, better armed against the interests the better to regulate them, or immunized against corrupting influence by retraction of public activity to its proper sphere, is to be restored.

In this section, drawing conclusions from what has gone before, I show why the most promising of these restorative efforts, the Hayekian, is likely to fail, and how instead a new form of democracy based on discourse and disciplined by institutions of practical reason analogous to those in firms can address the otherwise apparently insuperable problems of making effective public choices in situations too complex for any legislature to command, regardless of the bureaucracy under its direction. This programmatic extension reveals features of the new disciplines obscured so long as discussion is confined to economic exchange, and makes the argument in its most expansive form testable in the sense of predicting a test of its practicality: If the new institutions have the superior problem-solving capacities I attribute to them, and if they can constitute an effective form of democracy, it would be unaccountable if the democracies in their current hour of need did not at least discover the opportunity of testing this possibility.

The core conception and operating principles of representative democracy have remained remarkably stable since their articulation in the period of the French and American revolutions. The central institution is the legislature, whose members are periodically elected by the citizens and who, after deliberation amongst themselves, authorize laws by majority vote. Citizens may instruct members as to their desires, and may repudiate those who disregard such instruction by voting against them in subsequent elections. But so long as they hold a mandate, legislators may vote laws as they wish. Thus legislators can bring to bear knowledge of the world and the momentary possibilities of political compromise acquired in life experiences, and particularly in legislative

debate, that may be unavailable to citizens at large yet indispensable to effective legislation. The counterpart of the members' freedom is the citizens' right of self-expression understood narrowly as the rights to free speech and assembly, and more broadly as a guarantee against any self-aggrandizement by public authorities tending to limit the citizens' capacity to subject choices taken in their name to electoral scrutiny. These rights and guarantees may be declared explicitly in the constitution, or may be embodied in the design of law-making institutions themselves, as for example in a division of power among branches of government that makes each branch act in part as the citizen's agent in scrutinizing the actions of the others. These rights and guarantees secure the sovereignty of the people and all the minorities of which it may be composed as against its representatives, however combined in majorities, while allowing those representatives to formulate the people's will with greater acuity than the people acting directly could achieve.

The operation of representative democracy has been interpreted in two contrasting ways since its inception. The first, inspired by the ideal of the Greek *polis* and the North Atlantic tradition of civic republicanism it nourished, emphasizes deliberation among free and equal citizens. It sees in legislative debate a form of discussion in which members, mindful that they are acting for citizens who regard themselves as free and equal, look beyond the advantage of particular interests to the common good. In defining that good they modify one another's original views; majority vote merely formalizes the consensus that emerges in deliberation. The counterview emphasizes the vote as an instrument of self advancement. Debate and discussion in the legislature or its antechambers serve to discover the possibilities for achieving compromises that appease a majority of the represented interests while securing the positions and influence of their representatives. The vote enacts that appeasement, and the minority must avail itself of its constitutional freedoms of expression to secure eventual representation of its contrasting interests. Conventionally the first, civic republican view of representative democracy is associated with the first half of the nineteenth century and the heyday of the British parliament as a judicious debaters' society, while the party-democracy or public-choice view is associated with the rise in the late nineteenth century of mass parties rooted in stable communities of interest -- the working class with the Social Democrats, the middle classes with the parties of the center and right -- and imposing parliamentary discipline on members elected on their respective slates (Manin 1994). But the debaters' society was also a club of the wealthy that excluded the popular classes through limited suffrage; and in moments of crisis such as the Great Depression the distinction between log-rolling, for example, agrarian and industrial interests, and discovery of the common good has blurred in party

democracy. Although emphasis has shifted from the first interpretation to the second in the course of the centuries, it is thus more accurate to understand the terms as revealing abiding aspects of a single system rather than as names marking the steps in a progression from one form of government to another.

The historic innovation, as noted above, was in contrast the construction by representative democracy of the administrative state as the instrument for realizing its own more comprehensive designs. The efficient cause of this innovation was the recognition from the late nineteenth century on that industrial economies by their very nature exposed individuals and families to risks -- of workplace injury, of unemployment, of impoverishment in old age -- and to exercises of market power -- by large corporations against individual employees in the determination of wages and hours, or against small customers in the setting of rates -- which they could not bear by self-insurance or counter by normal contractual means. The response was to introduce compulsory insurance, financed by payments from employers and employees or taxpayers, and regulate or supervise new forms of self-regulation of dealings among firms and between them and employees (Ewald 1986(?)). All this required on the one hand authorization and even official sponsorship of organizations such as trade unions or business associations as representatives of collective subjects in bargaining with the corporations, and on the other the creation of vast bureaucracies to supervise such negotiations and otherwise transform legislative intent into, say, rules for work-place conditions or a system of social-security insurance, and apply those rules in particular cases (Mashaw 1983). These developments were mutually reinforcing. The new collective subjects facilitated the work of the new bureaucracies by representing to them in a negotiable form the interests of members potentially affected by regulation; the new bureaucracies facilitated the institutionalization of the new collective subjects by negotiating with them arrangements of value to current and prospective members. In the US collective contracting had long been disapproved as an infringement of the individual's right to contract and state powers to police the economy had been largely limited to guarding against just such restrictions or business combinations that restrained the freedom of commerce. Hence extension of state authority required elaboration of new doctrines in administrative law to legitimize the delegation of de facto law-making powers to private groups and the new public agencies that both supervised and bargained with them. In Western Europe and Japan absolutist states commanding extensive bureaucracies with broad powers to police economic activity and corporations grouping the economically active by their specializations antedated the rise of the modern corporation. Creation of the administrative state could therefore be interpreted as a reelaboration

of statist traditions, and the problem of delegation of legislation authority resolved simply by expanding established ideas of permissible administrative discretion. But these differences were secondary.<sup>[6]</sup> The common upshot was the creation of a system that at its zenith in the early post-World War Two decades seemed to embody the Durkheimian ideal of a representative democracy. The state, acting under the democratic control of the legislature, delegates to groups of citizens affected by the new regulatory regime responsibility for formulating rules of conduct in those areas where they can speak with the expertise of experience, and thus fosters development by providing security of place.

But looking back, the moment after noon was night. The incremental extension of these institutions to cover ever more risks -- of the more precisely defined disabilities, of deprivation in childhood -- and of more abuses of power -- in discriminatory hiring or promotion, in exclusion from the secluded places where deals are done. in the failure to disclose hazards to employees or consumers -- produces the gaggle of rules and entitlements that today seems to impede the search for efficiency while creating injustice and jeopardizing democracy. In part the cause was the self-reinforcing proliferation of rights and entitlements: Once insurance was provided to cover some risks it was difficult for those remaining uninsured to see why coverage should not be extended to include the contingencies they faced as well. In part the cause was a change in the origin and distribution of the risks of modern activity themselves: The dislocating shift away from mass production and the new uncertainties of the life courses of individuals and families in the new economy destroyed the approximate correspondence between contributions and benefits that had existed under the early regulatory state and undermined, furthermore, the stability of expectations required for new actuarial calculations, however rough. Given the profusion of entitlements and the mismatch between contributions and benefits, moreover, the attribution, implied or explicit, of prerogatives of representation to some organized groups as the "natural" exponents of "fundamental" interests appeared artificial, even pretextual: a mere cover for the self-dealing of powerful groups at public expense. The struggle by the interest groups to influence decision-making at the center, either by seating their own representatives at the negotiating table or by contesting in court decisions to which they were not party further confuses the jumble of claims. Ultimately this struggle discredits all versions of the Durkheimian idea that activity as a certain kind qualifies a group to participate in the corresponding lawmaking. What is left is the familiar partisan divisions between those for whom the welfare programs and regulations of the administrative state dull the incentives to work and invest while inciting the slackers to plunder and those

for whom the only alternative these forms of security is a market regime paralyzed by the greed and fear of individuals who must win big to survive.

But underlying and more fundamental than this debate -- and perhaps, to judge by the electorate's growing disdain for this controversy, more important from the citizens' point of view as well -- is the failure of this form of representative democracy as a method of adjustment to changed circumstance. Views of the "proper" sphere of government aside, it seems that representative democracy is incapable of establishing almost *any* regulatory regime that adjusts to changing circumstances, or, still worse, incapable of correcting defects in the regimes deployed so far. Apparently, the sheer complexity of the law it makes and the possibilities for self-interested manipulation thus created overwhelms the legislative capacity of modern democracy. Legislative and bureaucratic error seem inevitable and incorrigible, not least because, by a perverse logic apparently rooted in the very nature of law in a democratic society itself, efforts to remedy the latter may well increase the chances of the former. At the limit, and considerations of efficiency aside, the preservation democracy seems to require the legislature to refrain so far as possible from enacting legislation.

The crisis of confidence in representative democracy is directly manifest in problems concerning the intelligibility of the enactments, rulings, or judgments arrived at in one branch of government to those in the others with responsibility for interpreting them. In the early administrative state it was presumed that the legislature could enact solutions to the issues of concern with sufficient precision to guide both subsequent administrative elaboration and judicial review of the fidelity of such administrative interpretation to the lawmaker's intent. But as conditions have changed, original intentions no longer guide applications; unguided applications, however, smack of bureaucratic caprice or the undue influence of special interests on the expert administrators with whom they consult. Hence the legislature and executive are tempted to disregard the limitations in their own capacities that gave rise to the administrative state and do directly what they can no longer achieve through delegation. Thus, to refer only to the US example, Congress has come to doubt the fidelity of administrative agencies to its purposes; so it resorts more and more to detailed statutes to limit the scope for administrative interpretation. The executive, with its own interpretation of legislative intent and public purpose, subjects administrative rule-making to review by new agencies whose purpose is to determine if particular rules conform to the executive's understanding of the broad purposes of rule-making (including, minimally, whether the expected benefits of a rule substantially exceed its expected costs). This extension in the comprehensiveness of law-making in turn invites the judiciary to take the

resulting laws at face value, disallowing efforts of its own, or by expert administrators, to interpret legislative intent (Sunstein 1987a; Sunstein 1990).

The judicial arguments against interpretation beyond the text of the statute follow directly from the legislature's pursuit of definitiveness. In enacting any comprehensive law, the courts reason, the legislature considers endless variants. All of these are recorded in the legislative history. That history thus authorizes almost any interpretation on the assumption that the legislature would have endorsed a rejected rule had it but known a fact learned subsequent to enactment. Anticipating this, lobbyists can introduce rules they like into the legislative record, thus manufacturing the evidence upon which they will subsequently rely to show that, enacted or, their preferences are reflected in legislative intent. Appeal to the record therefore simply masks reinterpretation of purpose as the discovery of its motivating principles (Waldron 1995) [7] But if lawmakers can only mean what they manage to render in the text of a statute, and can no longer rely on administrators and judges to supplement their understanding with knowledge of their own, then laws to be effective must be fully and perfectly formed when enacted. Legislation becomes a hit or miss prospect, with every reason to think hits more likely than misses: To the extent that recourse to agencies operating on or synchronized with administrative principles of the centralized corporation already acknowledged limits in the legislative capacity for deliberative foresight, the failure of delegation suggests the destitution of the legislature as the central institution of democratic self direction.

This destitution marks an antinomy that goes to the core of representative democracy as a method of design for social living. If a law is, as legal positivists say, an authoritative social ordering enacted by a sovereign, then to be lawful interpretation of the law must look back to the original enactment. This backward-looking interpretation defines the *Rechtsstaat* or rule of law; interpretation loosed of this constraint is *freie Rechtsfindung* or legal caprice (Kelsen 1967). In a representative democracy, therefore, any interpretation of law that does not look back to the enactment of the legislative sovereign is capriciously unlawful. But the failure of the administrative state in its familiar forms suggests that it is impossible for the legislature to write statutes, even in continuing consultation with affected and expert groups, that are susceptible of adaptive interpretation while preserving the lawful identity of the original enactment. The choice that results would be tragic if its outcome were not self-evident. We must choose between fidelity to democracy and gambling on adaptive efficiency; and given the choice, we take democracy in the sense of fewer and less comprehensive laws and regulations every time: Democracy at

least promises in the end the possibility of a self determination of last resort that might be forfeit in the risky pursuit of arrangements that are at best arguably efficient .

At this point the Hayekians emerge solemnly from the wings to congratulate us on the sobriety of our reasoning and to console us with the prospect, central to their view, that what we pay in the restriction of law making to preserve democracy may well yield large dividends in efficiency. Once we abandon the Durkheimian illusion that flexibility is founded on a comprehensive bargaining regime with a place for all, we can use the instruments of representative democracy to cull from practical activity those few general rules of conduct necessary to coordinate it. As these rules emerge from practice and are identifiable by their self evidence they are intelligible to those to whom they apply and thus self interpreting in just the way democratic law must be if it is both lawful and efficient[8].

Indeed, from a Hayekian perspective the current impasse of interpretability provides an ideal opportunity for courts to limit democracy's self-defeating inclination to improve social order by legislative design: By interpreting legislation according to the "plain meaning" of the statutory terms -- as defined, for example, with reference to standard dictionaries of English -- courts will achieve the double end of reducing the sheer volume of statutes while ensuring that those that are enacted reflect the customary understandings of tacit knowledge. For legislatures will often prefer to do nothing rather than pass laws whose novel but imprecise terms will be scrutinized by courts determined to resolve all imprecision by a choice among currently accepted meanings; and those lapidary laws that are passed will be immediately intelligible to citizens seeking guidance from them just because the citizens' practical understanding of words, registered in dictionaries and enforced now by courts, has become habitual in legislative debate as well.

But the preceding discussion provides a compelling reason to reject as fanciful the Hayekian project. More important, it provides as well an alternative method of democratic reform that realizes its attractive feature of using practical activity both to direct the application of public authority and to impose lawful discipline upon it.

The objection to the Hayekian project is simply that the earlier examination of economic flexibility did not detect the emergence of Hayekian rules of good conduct at their alleged source: in transactions within and among firms. Neither the micro-constructivism of principal-agent theory nor analysis of mutually

determining expectations in game theory yielded anything like robust rules that can be generalized to society as a whole. On the contrary: The limits of these systematic efforts to grasp the principles of cooperation, we saw, drive Hayekians to a managerial informalism too inconstant to be the stuff of contract, let alone legislation. One response of this school to the recognition of these limits is to assume that social evolution has already done as much as needs doing, and provided us with the basic rules of property and contract sufficient to order exchange. In that case the task of the legislator is to refrain from imposing a willful and unnatural order where practical activity has left a void, and the task of the judge is to decide particular cases, correcting doctrine where necessary, by applying the rules of property and contract and the general principles of the price system by which these are informed [Posner, Epstein]. This method, however, substitutes deduction from fixed principles and institutional arrangements taken to be forever correct for induction from experience assumed to be fallible, whatever its powers of self-correction through evolution. Alternatively, it is conceivable that the legislature of a representative democracy formed on Hayekian lines could somehow detect -- by means of their own particular and inexplicable type of tacit knowledge? -- principles for coordinating tacit knowledge that escaped the notice of the actors, and even Hayekians observing the actors. But acceptance of such a view is a profession of faith unless we assume that the dichotomy between Hayekianism and Durkheimianism exhausts the possibilities of effective representative democracy, and assume further that the current failure of the latter counts as evidence of the future viability of the former.

This we need not do, as the same discussion that underscored the limits in the canonical distinction between tacit knowledge and guiding rule indicated in practical reason and the new pragmatic institutions a way of knowing the world that joins formalization of cooperation to the experimental exploration of possibilities. It combines decentralization, by which local units are able to act on what they know best, and integration through iterated goal setting, by which proposals for improvement, mindful of best practice, are transformed into concrete projects as alternative solutions are tested and compared. Nothing in this way of knowing limits it exclusively to economic activity. On the contrary, in supplanting coordination through prices or bureaucratic instruction authorized by ownership by exploration of ambiguous circumstances through disciplined discourse, the new pragmatism has greater affinities with political deliberation as joint evaluation of reasons for and against particular decisions and as the concurrent determination of means and ends than the normal mechanisms of economic exchange. [9]

In prospect, moreover, and for the moment abstracting away from institutional particulars, public choice on learning-by monitoring principles of design promises to overcome the dilemma of interpretability that paralyzes the administrative state while in fact achieving the connection between practical activity and public rule making that Hayekians establish by faith. It does this by uniting features of collective self-determination taken to be incompatible in the dilemma of interpretability: forward-looking interpretation and the lawful discipline of sovereign self-commitment. Learning-by-monitoring design is, we know, by definition forward looking. It begins with a mere declaration of intent to solve a certain problem. The particulars of the solution are fixed only as the actors actually begin to solve the problem. But efforts to find a solution are disciplined in that at every moment the actors must explain why there are pursuing one course of action rather than others, and must announce the measures by which their performance is to be judged. As they continuously explain to themselves what they mean by their choices, the gap between any eventual interpretation of what they intend and what they do is vastly smaller than in the case of delegation of supposedly definitive legislative authority to administrative agencies and the judges reviewing their actions. Thus the actors become practical lawmakers, accountable to each other for their choices: It is possible to say that their decisions are poorly motivated, inconsistent, or unworkable. They do not deal themselves the wild cards to which legal interpreters help themselves in *freie Rechtsfindung*. Just as in learning by monitoring, goals and targets emerge from the exploration of possibilities, so public action -- and the right to be included or exempted from it-- emerge from the programmatic activity itself; and this connection furnishes a kind of rolling commentary or self interpretation of those claims that limits the caprice associated with backward looking reconstruction of initial intentions.<sup>[10]</sup> Because the norms of accountability it establishes are tied to disciplined practical activity, design through learning-by-monitoring provides a model for public rule making when the solution to collective problems can only be found by experiment. For that reason I will refer to design by these methods as democratic experimentalism when it is applied to matters of public choice.<sup>[11]</sup>

The role of the legislature in democratic experimentalism would, therefore not be to enact the law as a plan of action, but rather to declare the citizens' intent to address a public problem, to dedicate resources to its solution, and to superintend the process by which the intent becomes actionable. To establish the analogy to the economic setting, consider the jurisdictions represented in the legislature -- the states in the US, for example -- as firms producing or contracting for the production of a complex bundle of goods and services

demanded by their citizen customers. Assume further that at any moment a majority of the legislature finds one or another of these services -- vocational training, say, or more generally the institutions connecting secondary school to work -- to be in need of urgent reform. This amounts to a declaration that current programs are so ineffective as to be beyond reform by usual methods, and a declaration to disburse by the new methods supplemental funds or (to avoid struggles over the priorities of reform projects, all, at this point, equally indefinite) some proportion of moneys currently dedicated to these programs. To initiate the experimental reorganization it makes money available to states (or school districts within states) on two conditions. The first is that jurisdictions interested in attempting solutions, heedful of current efforts to solve problems of the relevant class, define their aims in consultation with all those affected by potential measures: students, parents, teachers, administrators, employers, providers or related social-welfare or educational services, and so on. Think of this as the democratic experimentalist analog to benchmarking: the unassuming exploration of assumptions that precedes the experiment. The second condition is that participating jurisdictions identify commonalities amongst themselves (or within subsets of the group as a whole) and agree accordingly on common goals and performance measures. One class of these measures would be concerned with particular programs -- how best to organize similar projects aimed at, say, assisting vocational schools to teach problem-solving in teams; another class of measures would go to the architectural connections among the various programs directed to the relevant policy as whole -- whether that architecture addresses the right problems and actors, and whether the organizations it connects are cooperating effectively given the agreed ends. In this way the performance of jurisdictions that see themselves as alike can be measured against standards they set themselves. Think of this as the democratic experimentalist variant of simultaneous engineering in which partial solutions to complex problems are used to discover ways of both reformulating the problem and redirecting efforts at solving it.

Notice, too, that this form of information exchange is immediately suited to establishing workable regulatory standards in such areas as hazardous-waste emissions or occupational health and safety where the technical complexity of the subject matter manifestly overburdens the combined supervisory powers of legislature and administrative agencies combined. In experimental democracy the best practice of, say, reducing leakage from effluents from pumps as defined by comparisons across the relevant jurisdiction *is* the standard for pump design and operation; as improvements better best practice, the regulatory standard adjusts accordingly. Pump manufactures, for example, have incentives increase sales by developing substantially more reliable designs that redefine

standards in a way only their new products can initially meet, and pump users who succeed in reducing leakage as part of a general program of controlling production to minimize waste can by disclosing relevant features of their innovative techniques oblige competitors to match their performance (Freeman 1994). Reorganization in the firms thus serves as a model and precondition here, providing both a practical demonstration of how to set performance standards and simultaneously making the firms into just the kind of interlocutors who can participate in and benefit from more extensive exchanges of information of the same fundamental type.

This same relation to reorganization in the firms makes experimentalism suited to the management of public procurement of goods and services and, beyond that, to the determination of whether in any particular case the best provider is a public entity or independent firm. Roughly speaking, procurement by public agencies from outside vendors has traditionally respected the clear distinction between conception and characteristic of the mass-production system discussed earlier: A government entity determines needs it cannot itself satisfy and specifies precisely how they are to be met. Contractors bid for the right to do exactly what the government specifies, and the lowest of the (sealed) bid is accepted. Collusion is easy whenever the same contractors regularly bid against each other as they need only take turns submitting the "low" bid to assure a comfortable life for all. Even when the bids are competitive, the winner can almost always renegotiate the contract in its favor. Every defect or lacuna in the plan is an occasion to reopen the contract; and the more complex the project, the more likely, protracted and expensive to the government the resulting renegotiations.

The alternative method, which is often called performance-based contracting,<sup>[12]</sup> follows the example of collaboration in learning by monitoring systems. Public agencies, in consultation with those using its service, begin by specifying the goods or services to be supplied. Potential contractors -- which may be "internal" units already operating in the public administration or "external" providers organized as private firms -- submit a proposal that details how and at what price these goals are to be achieved, and in what way, if any, they might be modified to reduce the cost or increase the value of what is provided. The public agency then picks the combination of price and promised performance it likes the best. Collusion is easier to detect. Identical projects with different price tags are unlikely to be independent creations. Renegotiation, or ratcheting up, to use the term of art, is more difficult because eventual gaps between plan and promise reveal the contractor's defects as a planner, not the government's; and now the contractor is liable for meeting

promises it specifies, not the government that is liable for botched specifications. Because the competing offers -- equivalent in this to the measured comparisons of similar projects in different jurisdictions -- are so many mutually illuminating lessons in what can reasonably be expected at what price,<sup>[13]</sup> performance-based contracting above all allows public and private providers to be judged by the same standards, thus continuously redrawing and ultimately effacing the boundary between them.

Thus by making settings the best solutions to common problems accessible to all and exposing unsatisfactory ones to criticism informed by successful example these disciplines create a web of vertical and horizontal accountability that allows each piece of the vast apparatus of public administration to be scrutinized and redefined from the vantage point of the others. Using the agreed performance measures and the comparisons they permit, citizen users and, for that matter, the administrators who provide them can criticize program managers, programs, or the connection of the programs of one kind to related programs of another within a single jurisdiction. By the same logic citizens of one jurisdiction can criticize the performance of their jurisdiction as a whole. Or if the jurisdictions, or subgroups of them, fail to agree on workable common measures of performance in a given area, or fail to demonstrate progress by the measures agreed, then the national legislature and *its* constituency will have the means to declare a particular experiment as a whole a failure. In this way, as in the firms, piecemeal and coordinate changes in the goods and services provided and the means by which they are produced can lead almost insensibly to a comprehensive transformation of both.

Speculative programs of the kind I am considering are frequently dismissed as too remote from current circumstance to be worth considering seriously. In the present case, however, the suspicion may be nearly the reverse: Democratic experimentalism may strike many as much too close for comfort to what they see as the ominously realizable dystopia of decentralization of authority back to localities that marks the retreat of the administrative state from the responsibilities it could not manage. The worry, of course, is that loosing the intolerable restraints at the center could cleave the powerful to prey on the weak in the periphery. Thus decentralization in the form, for instance, of block grants to states of funds to spend without restriction on broadly defined problems could put vulnerable groups at the mercy of local elites, and strips citizens of the very procedural and substantive protections that citizenship in a (representative) democracy implies. How, the worry continues, would a system of democratic experimentalism protect those in need of protection without opening the way to local paralysis by inviting a thousand repetitions in

miniature of the shabby intrigues at the court of the familiar administrative state?

The answer to this concern goes to the role of the constitution and courts in the proposed system, and helps specify how the rules of democratic experimentalism would be more than *freie Rechtsfindung*. Here again the concern is with method, not the institutional details of design; and this concern is especially apt as the method contemplates modification of detail, connected eventually to the reexamination of architectonic principles, from the first Particulars are evoked, therefore, only to illustrate the class of solutions to classic problems of public law distinctive of the new disciplines. For similar reasons I omit entirely consideration of coordinate changes in trade associations, community-action organizations or other interest groups broadly defined necessary to make them effective advocates of participants in the new system.

Background protection for the citizens of an experimentalist polity would be provided by the constitutional guarantee of freedom of expression, which is, we saw, constitutive of representative democracy. Here it would be construed to mean not just the general freedom to pronounce public judgment on the authorities, but more generally as the right to be heard in those fora where the purposes of programs affecting the interests of particular citizens as individuals or members of groups are set, evaluated, and revised. So construed the constitution would guarantee the right of participation in what, following Brandeis, has been called "all the components of deliberative public life;" but in extending political deliberation to all manner of practical affairs it would disassociate this understanding of public life from the traditional conception of the Greek *polis*, where matters of state worthy of the highest exercise of public reason are sharply distinguished from essentially private thoughts of the mean business of daily life (Cover 1992), pp. 148-149. Further, substantive protection would be provided by according to individuals and groups the right to protest particular decisions as inconsistent with the relevant actors' statement of experimental intent, the evaluation of results by standards those actors themselves set, or, relatedly, possibilities revealed by experience in other jurisdictions. Freedom of expression -- the defining liberty of the moderns -- and freedom of participation -- the defining liberty of the ancients in the *polis* -- would be mutually reinforcing; and joined this way they overcome the distinction between ancient citizenship that limits the public to matters of state and modern public opinion that considers all of life while remaining detached from political deliberation.

In deciding the validity of claims arising under these two headings judges in democratic experimentalism would be simultaneously protecting the rights of individuals and policing, or forcing the legislators -- tempted, perhaps to relax scrutiny through log-rolling deals that ingratiate them with local elites -- to police the disciplined flows of information by which citizens learn from their separate endeavors. Claims of exclusion could only be countered by convincing rearticulation of the reasons for believing the participation of the claimants irrelevant to the decision at hand; challenges to particular decisions could only be turned aside by convincing restatement of the evidence in favor of the measures taken. As claimants in both cases would have available to them the experience of all potentially comparable jurisdictions, or could protest the unavailability of information they hold relevant, the courts in democratic experimentalism would be assessing the performance of the experimenters by the standards they set, as well as the legislature's supervision of the experiment. Thus judges, no longer reduced to textual interpretation by the impossible task of recovering the intent of a remote and inevitably uninformed legislature, would assess the actors' fidelity to their own intentions as well as the efficacy and fairness of those intentions as revealed in the light of diverse experiences whose commonality was acknowledged by the actors themselves.

Decentralization of this kind, therefore, far from delivering the vulnerable into the lawless preserves of the local oligarchs, would expose local activity to scrutiny more informed and thus more searching than possible in the old administrative state; and the courts in serving justice would increase efficiency by obliging jurisdictions to learn from one another. Rivalry among jurisdictions replaces rivalry among branches as a protection against tyranny; but now the same contests that safeguard popular sovereignty also contribute to its wise exercise, and the risk of paralysis through contention among the powerful is no longer the price to be paid for the freedom of democracy.

At the limit, the defense of group or individual rights would be linked to public investigation of the most radically innovative of the emergent social arrangements: the real utopias, adumbrated in the experiments of but one or a few jurisdictions at the boundary of what can be suggested with current institutional possibilities. Pragmatism is frequently criticized as an "adaptationist" philosophy that takes as given the problems that society is to solve [Randolph Bourne, cited in (Joas 1980, pp. 28-29)]. Set against the backdrop of this criticism, democratic experimentalism radicalizes pragmatism in politics as learning by monitoring radicalizes it in the economy by creating in the experience of partial alternatives to the regnant order the possibility of seeing the familiar as problematic and the possibility of reflecting on, extending, and choosing among the problematic experiences. At the least, and

from an American perspective, democratic experimentalism would finally make good on the old idea of Brandeis and Holmes of the states as laboratories of democracy by ensuring that everyone was attentive to the outcome of the experiments.

Yet it may seem that all of this -- the legislators' ability to agree to and carefully monitored experiments as well as the judges' ability to review them -- depends on a community of interest among the citizens whose very existence renders superfluous all the machinery of experimental democracy: Only citizens so agreed in their joint purposes, or so trusting of their mutual capacity to reach and sustain agreement that they are already, or know they surely could be engaged in complex joint activities, this worry runs, are capable of the forms of deliberation just described; but then it is the disposition to cooperate, whatever its origin, and not the apparatus of experimentalism that explains the cooperative activity. Surely the experience of federalist states buttresses the suspicion that decentralization by itself does not lead to ever deeper understanding among the federated jurisdictions. The opposite is more nearly true: Often in federalism the constituent polities discuss their arrangements only when they already suspect profound disagreement; and finding in time reasons to confirm that suspicion, they devise ways of arbitrating disputes -- for example, by distributing funds according to jurisdictions' shares of the national population -- that do not oblige them to compose crucial differences. Why not suppose, then, that absent a natural community of interest democratic experimentalism will prove unworkable from the start or quickly degenerate into the sham association of such much federalism?

The earlier discussion of the governance properties of learning by monitoring suggest two reasons why this worry is misplaced. First, the monitoring arrangements and the benchmarking they include reduce the risk that the parties begin with divergent understanding of what they agree and the risk that they will discover such divergences when the costs of disentanglement are already insuperably high. If they agree, as do firms establishing relations by means of the new disciplines that they all may gain by exploring together the possibilities of solutions that none can define alone, the fusion of performance and evaluation allows them to test the prospect of collaboration without becoming hostage to their potential partners. Just as we saw the new industrial disciplines spreading to zones where trusting relations among firms were tattered or yet to be spun, so there is reason to think that self-governing properties of democratic experimentalism may recommend it to parties convinced of the advantages of cooperation but dubious of their ability to achieve it spontaneously.

Second and relatedly, democratic experimentalism may well create just the kinds of shared understanding that the objection takes to be its precondition. Recall that in the new supplier agreements the constant and regulated exchange of information replaces arbitration by catching nascent disputes before they harden into firm differences. Democratic experimentalism similarly allows jurisdictions to side step the encrustation of political arbitration by and extending agreement through practical exploration of common uncertainty at the margin of common experience, rather than directly through discussion of consolidated disagreements. When, for example, upon evaluation of data collected according to a protocol they have devised, parties concur that problem-solving teams learn faster (or slower) in classrooms that simulate certain aspects of modern organization than in actual factories or offices, they insensibly adjust their respective views of the proper sphere of government intervention in the economy without addressing such large questions directly. At the least the parties to such discussion are likely to be unsure enough of the exact relation between any particular new project and continuing collaboration in others so that disagreements regarding the former need not immediately raise doubts about the latter. Joint exploration may fail; but it is unlikely that the parties, having continually agreed on what needed to be done and how roughly to do it will, initially, take failure as a sign of invincible incompatibility.

By reversing a key feature of the logic of power relations in bargaining situations experimental democracy may create consensus in another but again related way as well. In normal bargaining relations the party most securely entrenched with things as they are is in the best position to dictate the conditions of eventual change. Social experiments are thus held hostage to the least experimental participants, and entrenched interests escape fundamental reform as a condition for agreeing to marginal changes. This explains why federal systems in particular often become a scaffolding for supporting established interests rather than a mechanism for change.

But in experimental democracy innovative jurisdictions are free to set out on their own, provided only that they explain the purposes of their projects in measurable ways and do not, under the cover of innovation, exclude citizens from the project who are entitled to participate in it. Success, especially surprising success, has a facticity of its own, and imparts an exemplary power to its protagonists. World history is the story of such successes and the desperate efforts of elites it discomfits to bend the prowess of new techniques to their purposes without sacrificing traditional privileges (Unger 1987). Democratic experimentalism domesticates the solvent world history, and

creates the conditions under which small groups of citizens convinced of their projects can convince others to associate themselves by demonstrating success.

It is suggestive that all these properties -- self-governance amongst initially cautious partners through rich information exchanges, the alignment of views through the joint exploration of unknown states of the world, the right-of-way to the innovators and the resulting emulation of the laggards -- are characteristic of new forms of rule-making emerging on the one hand where old regimes have begun to collapse under their own weight or on the other where changes in jurisdiction or innovation force radical reform or extension of regulation to wholly new areas. Instances of the first sort tend to be ramshackle and hard to categorize with precision because elements of the new coexist with elements of the old: A case in point is community policing in Chicago, where groups of concerned neighbors, community activists, local officials of various municipal services and of course the police on the beat elaborate plans for improving public safety in their home blocks and both monitor their own progress and keep abreast of developments in communities like theirs by means of well defined procedures that focus attention precisely on the relation between the identification of problems and the evaluations of provisional solutions. Instances of the second and more clear-cut sort are the new occupational health and safety regulations in the European Union, new international technical standards in telecommunications as well as international regimes for limiting, among other things, oil tanker spills. In all of these cases best practice as defined (and continually redefined) by appropriate forms of benchmarking becomes the rules, and this despite conspicuous differences of raw economic interest among the participants (Eichener 1993; Genschel 1995a; Genschel 1995b; Zorn 1995). Rapid change and the conviction that no party can master it alone have apparently opened the way for cooperative experimentalism in these arenas.

Far as such findings are from establishing the viability of the new disciplines in politics, they are suggestive enough of the surprising vitality of the new experimentalism to be more than mere illustrations of its mechanism. No one has been expecting institutional regeneration in the violent Chicago neighborhoods; indeed, recent US commentary on the prospects of the urban poor puts Durkheimian emphasis on the experience of associational life as training in the moral discipline required for all forms of cooperation, and so seems to exclude the possibility. Nor did the investigators reporting the results of reform of occupational health and safety regulations in the European Union expect what they found. Instead of a new regime more demanding on firms than any of the national systems it succeeded, they had anticipated a race to the

regulatory bottom as firms in the richer countries, no longer constrained by a Durkheimian framework of national negotiation, insisted on the permissiveness enjoyed by competitors in the poorer Community members, and these in turn pressed their governments to insist on still greater laxity.

And yet, and yet: The assumption of a disposition to cautious cooperation born of the impotence of each to shape events is no more innocuous in politics than in economic life. In the best, and truly exceptional case, it grows from the conviction, dear to game theory, that the gains from cooperation are so great that no will jeopardize them by squabbling at the start over their distribution. In the worst, and less unusual case, it may grow, as perhaps in Chicago, from the exhaustion of old animosities that, consuming themselves as they consume their partisans, suggest consideration of alternatives by their own futility. On a broad scale the assumption will hold, if it does, because of the frustration of the generations of hope that went into building the administrative state and the more or less desperate search for alternatives born of that frustration. If new forms of cooperation can be contemplated today it is because the failure of those hopes, unimaginable until it became too monstrously real for contemplation, has torn down the institutions that once defined the boundary between what is possible and what not.

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## Footnotes

[1] On the tensions between these two views of freedom see (Cohen 1995).

[2] For the sake of simplicity I omit consideration of related work on incentives that focuses on property rights, and particularly the role of the residual right of owners to dispose of returns and redeploy assets insofar as contractual agreements do not limit their freedom to do so. The thrust of this argument is that agents will so fear the capacity of owners to use these rights to punish self-dealing -- for example, by firing them -- that they will work cooperatively even in the absence of comprehensive incentives to do so (Grossman and Hart 1986). But while it is always possible to devise an ownership scheme with these effects once the facts of the situation are known,

it is not, apparently, possible to devise one *ex ante*, in anticipation of developments. This means that owners will likely depend, in part, on information provided by agents in selecting the property system appropriate to their circumstances; and the agents will have every incentive to choose the property arrangement that advances their interests given their current activities, and not necessarily the one best suited to maximizing returns to the venture in the future. For an illustration of the extraordinary sensitivity of optimal property arrangements to particular situations, and hence their vulnerability to the very gaming they are meant to avoid, see (Aghion and Tirole 1993).

[3] Thus Ellickson shows that "close-knit" groups can develop welfare-maximizing (and transaction-cost minimizing) rules for allocating the liability for loose cattle or apportioning the ownership rights to whales struck by one whaler but finally landed by another. A group counts as close knit when "informal power is broadly distributed among group members and the information pertinent to informal control circulates easily among them (Ellickson 1991)p.177-178 Thus tight-knit groups are just those in which cheating can easily be detected and penalized; and the general claim can be rendered as the assertion that cooperation will result whenever the (game-theoretic) conditions for cooperation are met. As the only indicator of tight-knittedness is the disposition to cooperate itself -- "social environments are too variable to be described in terms of a few quantifiable variables (ibid.)" -- the argument boils down to the claim that the causes of cooperation are present whenever cooperation is, otherwise not. Thus the "explanation" of the breakdown of cooperation among New England whalers after the Civil War is that, by then, the "New England whaling community had become less close knit (Ellickson 1991), p.204. See (Ostrom 1990) for similarly circular efforts to account for the emergence of cooperative solutions to collective-action problems.

[4] In the sense defined above pragmatism includes not only the tradition of American thought originating in the works of Peirce, William James, Dewey, and Mead but also the current of German writings passings from Herder and Humbolt to Nietzsche, and advanced most acutely from the point of view taken here by Charles Taylor [Language and Society in communicative action]. On the entanglements of these traditions see Joas, Rorty book on modernism etc.

[5] Dewey anticipated that the understanding of pragmatism would itself be altered and refined through application in practice: "The theory of valuation [as the most general formulation of the relation between means and ends -- cfs] is

itself an intellectual means and as such can be developed and perfected only in and by use (Dewey 1939), p. 54."

[6] On the convergent views of the US architects of such emblematic New Deal reforms as the National Recovery Administration and European corporatists with regard to the relation between associations and the state, see (Brand 1988, esp. p. 93). The chief difference, in Brand's view, was the greater importance accorded by the Europeans to peak associations of labor and capital, with hierarchical authority over their constituent organizations as effective interlocutors for one another and the state. Because US reforms set correspondingly greater store in continuing exchanges between associations at all levels and the new public authorities, he qualifies the American variant of neo-corporatism as "administrative (Sunstein 1987b, pp. 20-22)."

[7] The most acute depiction of the potentially abusive use of legislative history as an interpretive instrument is by Dworkin. His solution is to entrust interpretation to judges. The discretion of the latter, Dworkin believes, will be limited within tolerable bounds by the obligation to render judgments that are most fully conformable with the entire corpus of relevant statutes, case law, and doctrine, as well as the evolving understanding of these in the community within which the conflict arose and to which the judgment is addressed. In this the judge would be like the literary critic who finds the meaning of a literary work by considering not just the intention of the author but of all those other works and circumstances both shape and were shaped by that intention. But this literary analogy is misleadingly incomplete. Given the characterization above of legislative history as the battleground of interpretation, it is more nearly correct to assume the "author" of the law as having designed a text susceptible to multiple, possibly contradictory interpretations from the start. Fullest recovery of the meaning of such an "open" artwork -- the term is Eco's, and it designates just this artful staging of ambiguity in the work of modernist authors such as Joyce -- simply authenticates the possibility of contrasting readings while denying priority to any partial interpretation. Whether the interpretation of artworks as "open" in this sense imposes limits on exegetic caprice is itself an open question. See Eco-Rorty exchange

[8] For an excellent discussion of the influence of this line of interpretation in the jurisprudence of the US Supreme Court, see (Karkkainen 1994).

[9] The claim that organizations serving the market and those under political direction operate by different principles rests on the assumption that administration in the former is thoroughly disciplined by the price system and

the calculation of profits it permits, while the administration of the second is under no such constraint. Von Mises writes: "The sovereignty of the consumers and the democratic operation of the market do not stop at the doors of a big business concern. They permeate all its departments and branches....The profit motive through the instrumentality of which the entrepreneurs are driven to serve the consumers to the best of their ability is at the same time the first principle of any commercial and industrial aggregate's internal organization. It joins together utmost centralization of the whole concern with almost complete autonomy of the parts, it brings into agreement full responsibility of the central management with a high degree of interest and incentive of the subordinate managers of sections, departments, and auxiliaries. It gives to the system of free enterprise that versatility and adaptability which result in an unswerving tendency toward improvement," [Bureaucracy, Ludwig von Mises, New Haven, Yale University Press, 1944, p. 36] The impossibility results in principal-agent theory are a formal demonstration that no straightforward interpretation of the claim is true. The new disciplines, we saw, do indeed expose internal units to comparisons with outside competitors, but the comparisons are expressed in many performance measures, of which price is an important, but not uniquely determining one. Moreover, as the units of the public administration can also be compelled to compete with outside providers in the achievement of complex performance measures, exposure to competition, or contestability cannot replace guidance by prices as a criterion for distinguishing private from public administration.

[10] The program advanced here is thus an effort to redeem the promise, most clearly articulated by Dewey, of an anti-formalist, forward-looking form of legal interpretation that would create the possibility of abusive discretion. See (Dewey 1924, p.)

[11] Roberto Unger uses the same name to refer to a related but distinct solution to the problem of institutionalizing democratic exploration of social possibilities. In his conception a "hard" state is given substantial powers to foster experiments, but also and crucially to "disentrench" established interests. Citizens are protected against the augmented powers of the state by freedoms of expression and immunities in the exercise of political rights. The danger, of course, is that the powers overcome the rights and immunities, or that the struggle for control of the hardened state leads to paralysis. The alternative program that follows from learning by monitoring makes rights of expression and participation actionable in ways that police experimentation, thus revealing encrustation as inefficient and unjust, and exposing it to competition from superior solutions. The danger of this program is that, despite the institutional

safeguards to be described in a moment, entrenched interests find ways to subordinate innovation to the preservation of their power.

[12] See (Wehrle-Einhorn 1993) for a comprehensive discussion of the new methods and further references. As in collaborative manufacturing, the starting point in performance-based contracting is the decomposition of complex projects into discrete modules, each with its own integrity. In one variant of the new contracting, this is called "job analysis." This is "Principally a tree diagram that breaks down each contractor operation--viewed as a system--into its component parts and subparts, each with its own input, work process, and output. Some outputs are consumed or altered further by the contractor's operation; *performance indicators* (emphasis in original) are established, which permit measurement of some aspect or characteristic of other outputs selected from the remainder." (Wehrle-Einhorn 1993), p. 13.

[13] For illustrations of the new contracting methods in practice, see the reports on the experience of US municipalities in (Seader 1994; White 1994).