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Science and Politics Between Domesticated and Radicalized Pragmatism

The Argument

This paper introduces a distinction between two understandings of the pragmatic tradition: domesticated and radicalized pragmatism. The main difference between these two views concerns the feasibility and moral legitimacy of a radical critique of an existing practice such as science, politics, and so on. It is argued that domesticated pragmatism, with its emphasis on local rather than global perspective, has led to trivialization and degeneration of self-reflective critique. Without rejecting pragmatism as such, this paper urges a reinterpretation of this tradition so as to make room for more thorough forms of critique of both science and social practice.

I

The philosophy of the age is a domesticated pragmatism. This philosophy animates the dominant ideas about politics throughout much of the world today. It shapes our ideas about science as well: most of the papers collected here represent characteristic expressions of domesticated pragmatism applied to science.

The philosophical heroes of domesticated pragmatism are Wittgenstein and Dewey, interpreted to remove from their ideas whatever was most shadowy and subversive. We might just as easily make them into heroes of a radicalized pragmatism. The greatest weakness of these philosophical idols - and the reason to think that the future may favor them less than the present - is that they give us little cause to choose between domesticated and radicalized pragmatism, a choice pregnant with practical consequence.

This ambiguity is not neutral; it amounts to a de facto preference for domesticated pragmatism, and has so been understood by most contemporary readers. Left to its own devices, ambiguous pragmatism becomes domesticated

pragmatism, for nothing is more convincing than what exists. Domesticated pragmatism in turn leads to a conservative, antiphilosophical philosophy and a conservative, antipolitical politics, remitting us to the worshipful acceptance of established practices. Domesticated pragmatism makes the following four moves. The first three are moves domesticated pragmatism shares with radicalized pragmatism; the last move, however, distinguishes domesticated from radicalized pragmatism.

First, it affirms the context-dependent character of our practices, discursive or institutional. We never act, associate, think, or argue in a neutral space, free of presuppositions. We move within a structure of assumptions and arrangements that we only occasionally resist and revise. Although we made these structures, they also, more tangibly and immediately, make us, and their history looms large in our history. Thus, domesticated pragmatism generalizes and historicizes the Kantian idea of the conditioned quality of our insights and activities.

Second, domesticated pragmatism, unlike Kantianism, denies that we can isolate a significant invariant element in the structure of our presuppositions, including the presuppositions with which we approach the study of nature. It repudiates what the Kantian vocabulary calls the synthetic a priori. More generally, it affirms the powerful albeit oblique element of empirical conjecture in our methods of inquiry as well as in our basic modal categories of necessity and contingency. Thus, for example, it rejects the distinction between the analytic and the synthetic, and insists that procedures of justification as well as strategies of discovery change in science together with the content of scientific explanations.

Third, domesticated pragmatism recognizes that our mental and institutional contexts are never so confining as to stamp out the activities and insights that might subvert them. Often we accommodate action and insight to the established context. Sometimes, however, we refuse to compromise, and change the context instead. We tinker with our procedures and premises, our institutions and practices. Such changes wait upon crisis or help provoke crisis. They are therefore likely to be discontinuous.

The fourth move of domesticated pragmatism is the point at which it parts company with radicalized pragmatism. Discontinuity in the revision of our practices need not become divergence: what works best prevails over time. Domesticated pragmatism is therefore a doctrine of building, through informed trial and error, convergent improvement and self-improvement in science and politics. Crisis in explaining nature or organizing society may be perennial, and discontinuity of response therefore unavoidable. But there is a right track - given the combination between our natures and the nature of the world in which we find ourselves. Its advantages over the false turns soon become manifest. Over time, we should expect to find worldwide convergence toward the best available institutions and practices.

In politics such a convergence still leaves room for the existence of separate peoples on the basis of distinct collective habits of mind and conduct. It undermines, however, the idea that each national culture must live in its own institutional house.

Similarly, we should expect to find in the history of science a convergence less toward the same theories than toward the same practices, delimiting the zone of useful disagreement about theories. Only on the basis of such a convergence, domesticated pragmatism teaches us, can occasional schism and revolution be fruitful. Either the problem of the revision of our presuppositions is insoluble or it solves itself.

Consider the way in which domesticated pragmatism approaches a contemporary change in our practices: the understanding of the nature and reach of shifts now taking place in the organization of industry around the world. These shifts, and the interpretations they invite, are most directly linked with economic reorganization. However, they could just as well be seen as standing in between science and politics. Fordist mass production, with its rigid machines and production processes and its stark contrasts between supervisory and executory jobs and between domains suited to competition and cooperation, no longer dominates the advanced sector of the economy. It gives way to another form of production preferring flexibility, moderating the contrast between supervision and execution, and combining the domains of competition and cooperation. A good firm comes to resemble a good school. A capacity for permanent innovation becomes the touchstone of success. This is production as practical reason on the march, industry as embodied science. At the very least, its diffusion narrows the distance between the practices of science and the practices of production.

In the narrowing of this distance, domesticated pragmatism sees and heralds a demotion of politics: the politics of big dreams and big alternatives. Although the new logic of practical experimentalism may begin in business, it soon spreads throughout the professions and the organizations of civil society. Finally, it changes the practices of government, opening the way to a decentralized, market-friendly form of strategic coordination between government and private firms. We cannot and need not specify in advance the economic and political institutions best suited to the development of this organized experimentalism. Everything - from the property regime to the style of federalism - may change, little by little, in conformity with the demands of the new way of doing things. It is a powerful force precisely because it is not merely an economic one: it taps the zone of intersection or affinity between democracy and practical progress. Here we have domesticated pragmatism seeing itself militant or triumphant in the world.

II

Radicalized pragmatism shares with domesticated pragmatism its first three moves: the insistence upon context-dependence, the rejection of invariant presuppositions, and the vision of discontinuous change, made possible by the inability of the structures we build to exhaust the powers we enjoy. It differs, however, from domesticated pragmatism in its last move. The core sense of this difference is to emphasize the failure of our natural constitution, or of the world we are in, to determine the limits and transformation of our practices, or contain divergence of vision and experience. As a result, our discursive and institutional practices can take different directions. In choosing such directions, we can at best

take relatively informed gambles about what works (as politics, as science). At the same time, however, we choose to change ourselves at the margin in one way rather than in another.

When they are not reckless, our gambles about practices amount to self-fulfilling prophecies: they change our relation to nature or to other people so as to make themselves more real. However, precisely because no set of scientific practices represents the natural and definitive language of the mind and no set of political practices provides society with a definitive and natural order, such effects never become irreversible. We are our practices. There is however always more in us than there is in them. We therefore have reason to prefer those practices that are less self-protective and less self-enclosed, more open to challenge, revision, or escape..

The third move of radicalized pragmatism is therefore the idea that change of practices - including the procedures of science and the arrangements of science - presents a distinct task for action and imagination. The execution of this task goes beyond what we can accomplish when we do our first-order work, explaining particular phenomena in nature or managing particular problems in society. We can hope to defend our choice of assumptions, themes, and methods in science by invoking the range and reach of the predictions and interventions that each choice makes possible. Similarly, we can seek to justify our institutions by citing our success at satisfying our individual and collective interests as we see them, while we wait for the economic or military crises that would test the limits of the present institutional arrangements.

As domesticated pragmatists, however, we refuse to make trouble by reorganizing science around the exploration of alternative research programs, with contrasting assumptions, themes, and methods. (For example, the extension of the methods of historical science or "natural history" from evolutionary biology to biochemistry and physics.) Nor do we continue to press for those institutional changes in society that are most likely to renew the life of democratic experimentalism in other areas of social life: arrangements favoring an increase in sustained, institutionalized political mobilization and the independent self-organization of civil society. For only a high-energy politics can be a politics of structural change, and only the institutionalization of a high-energy politics can save such a politics from the pendular swing between agitation and stagnation. So, too, only an organized society can generate alternatives and act upon them. And only a civil society that is universally and independently organized can avoid the divisions between insiders and outsiders that make the general interest in the furtherance of democratic experimentalism hostage to the self-interest of the insiders in clinging to their privileges.

If the third move of radicalized pragmatism is a recognition of the distinct and fateful character of the choice of our practices, the fourth move is an acknowledgement of ineradicable divergence in the history of our practices. Repression or restraint of this divergence - of the coexistence, in society and science, of rival and incompatible practices - is not a benefit. It is a burden weighing upon the development of our powers - our moral powers of emancipation from persistent social division and hierarchy as well as our practical powers of production and invention.

Consider the implications for the interpretation of the industrial shift described earlier. From the vantage point of radicalized pragmatism, the diffusion of a new logic of practical coordination, embodying more fully in productive life the capabilities of practical reason, remains indeterminate in its institutional forms and social consequences. It can develop in ways that are more inclusive of all workers or in ways that preserve a distinction between an economic vanguard and an economic rearguard. It cannot move in the direction of greater inclusion unless we are also willing to innovate in the institutional arrangements shaping government and civil society with the aim of accelerating democratic politics and strengthening associational life. Such different futures of industry suggest and support different ways of relating science to society.

III

In the political realm, domesticated- pragmatism finds support in an overtly anti-iconoclastic discourse. This discourse provides the domesticated pragmatist with a rhetorical shield, concealing the compromises, equivocations, and sheer superstitions that lend appeal to his doctrine. The anti-iconoclastic discourse associates any attempt to overstep the selfrestraint of domesticated pragmatism with an authoritarian utopianism and vanguardism and therefore also with the vast political disasters and human suffering of the twentieth century. It sees in the arrogant pretenses of the idol-smashing prophet an ideology of cruelty enforced and justified through a remorseless voluntarism, a hypertrophy of the will.

It is not, however, the experimentalist impulse of a radicalized pragmatism that stands to blame for the atrocities and absurdities of the twentieth century. What has proven poisonous is the association of transformative commitments with dogmatic and determinist ideas about historical change: the belief that the path of institutional change is clear; that all we need to do is to force our way through it; that history has appointed certain classes, parties, or peoples to lead in this struggle; that institutional orders amount to indivisible systems that change all at once; and that in the absence of such real and revolutionary change nothing remains to be done except to manage and humanize the existing order. If history fails to comply, we need to assist; absolute terror becomes, as Hegel saw, the revenge of a disoriented and frustrated will against the stubborn facts.

The radical pragmatist knows that we must continue to be iconoclastic about structures - cultural or social, discursive or institutional - so that we may be respectful of people. Our relations to one another remain enmeshed in divisions and hierarchies, in class positions and social roles, shaping our experience, ruling our associations, and determining our life chances. Institutional arrangements and enacted beliefs sustain and reproduce this social grid. If we submit to it, we sacrifice our greatest possibilities of individual and collective development. If we rebel against it, we risk betraying or hurting other people, for our relations to them remain caught in the established scheme of roles and classes.

The democratic cause advances through motivated and cumulative tinkering with the arrangements underlying such schemes. It offers to diminish the force of the dilemma of submission or betrayal. It cannot do its work, however, without risk or cost. The rhetoric of anti-iconoclasm and anti-utopianism, deployed by the domesticated pragmatist, wraps itself in the disguise of humanistic scruple and skepticism. It arrests us, however, in a world where we cannot hope to diminish that dilemma or to deal with one another as role-transcending individuals rather than as role-shaped placeholders. By contrast, radicalized pragmatism disrespects structures the better to respect individuals.

Radicalized pragmatism bears a superficial resemblance to the political via negativa of a view that sees in all institutionalized structures the Midas-like petrification of living personality and spirited association. One version of this doctrine - expressed most recently by Sartre - treats rebellions against such structures as life-giving but ephemeral interludes. In time the structures will reassert themselves and resume their old and eternal war against spirit. Another version - developed by Foucault - seeks progress in a micropolitics of emancipation, giving up as either useless or dangerous the old macropolitics of governmental power and institutional change. Like other victims of the illusion that the politics of civil society can replace rather than merely complement the politics of the state, this view seeks to affirm the primacy of method (the method of resistance) over content (the desired institutional outcome). The result is a politics that risks reduction to the program - lay off me. The micro, however, cannot be separated from the macro, nor can method of action compensate for the absence of programmatic vision. The empire strikes back until we change it, and action remains blind until we give it a direction, until we see a direction.

In both these voices, the political doctrine of the via negativa amounts to a higher-order fatalism. It denies our power to change the quality of the worlds of belief and organization we make and inhabit: their relation to our world-changing and world-resisting freedom. This fatalism links the doctrine of the political via negativa to domesticated pragmatism. What separates it, however, from domesticated pragmatism is the ethic of heroic resistance it continues to nourish.

Anti-iconoclasm, by contrast, finds reassurance in a conception of the private sublime. This ethic teaches that politics must become or remain little so that people can be big. Politics - understood as collective action about collective practices, not just as conflict over the mastery and uses of governmental power - deals, according to this view, with the basic decencies and securities of social life. The gospel of the private sublime assures us that by doing this political work we help enable individuals to push forward the limits of humanity within the pianissimo of personal life.

However, the doctrine of big people through little politics - the moral counterpart to the institutionally conservative social democracy or socially conscious neoliberalism that is now all but the sole surviving political program in the world - comes to grief on its failure to acknowledge the relational character of desire. Strong impulses and visions seek expression in forms of group life, and a contest among alternative ideals of human association will sooner or later make politics big again. Politics can remain little only if people are themselves belittled, or if,

lost in a labyrinth of subjectivity, they achieve intensity of experience in the slanted and self-subversive manner of narcissistic gratification. Domesticated pragmatism begins to seem plausible in such a world; it is the hypostatis of a diminishment and a species of amor fati.

IV

In the realm of philosophizing about science another rhetoric ordinarily takes the place of anti-iconoclasm. It is, however, less a defense than a diversion. This diversion is the debate about realism and constructivism. When transported to the realm of social thought, it becomes a dispute about rationalism and historicism. It is true that something of the old quarrels about realism and constructivism threatens to return even after we have embraced the first two moves that domesticated and radicalized pragmatism share. It is also true that we have failed to define this vestige of legitimate bafflement in the discredited obsessions of metaphysics. The less we subscribe to the domesticated pragmatist view of the spontaneous self-correction of our practices, the less confident we shall become about the irrelevance of those old obsessions. We shall have less reason to kneel down before our present practices and more need to decide in which direction to change them.

However, the insistence upon criteria of assessment transcendent over contexts is just what the first two moves of pragmatism - either domesticated or radicalized - have made unavailable. So how can we dispense with permanent criteria for judging our practices without losing our power to criticize and change them? The most promising direction in which to look for an answer lies in the actual organization of our practices rather than in the mirage of a criterial form of judgement. Our practices never exhaust our powers. We always remain capable of subversive perceptions and discoveries that we cannot fully validate, or even make sense of, within our established ways of doing science and our conventional protocols of justification. We are limited by the relation between our capabilities as organisms and the structure of the natural world. However, we allow other more local and contingent blinders to be superimposed upon these deep and universal conditions.

These secondary constraints fall into two main classes: those that result from the sequence in which different ideas happen to have developed in the particular sciences and those that arise from the social organization of science. An example of the former is the development of modern science around an ahistorical Platonism, with the result that historical explanations such as we find in evolutionary biology appear to represent a falling away from a higher, more stringent standard of explanatory power. An example of the latter is the overwhelming influence that the disciplinary structure of the modern university, with its obsessive focus on the filtering out of unreliable people and ideas, has had upon the way we do science. The ideal we should hold before our eyes in the reform of scientific practices is to push back the influence of these secondary constraints the better to assert the

power of the deeper, more universal limits. For whereas the latter represent the enabling conditions of all insight, the former turn us into time-servers.

We have similar work to do in the criticism and remaking of our social arrangements. We know that material progress depends upon both cooperation and innovation and that each of these needs the other while jeopardizing the other. Institutions may excite this tension or soften it. We know that the development of personal freedom depends upon a cumulative weakening of the hierarchies and divisions, the extreme contrasts of insiders and outsiders, that turn communal solidarity into a conspiracy of submission, and individual self-affirmation into a struggle for privilege and control. As democrats and experimentalists, we hope to find institutional arrangements exploiting the zone of potential overlap between the conditions for the advancement of these goods. We recognize in cumulative, continued, and motivated institutional tinkering one of the master tools for the achievement of this goal. We discover in a sustained heightening of political mobilization and in an independent and generalized organization of civil society the changes that energize the tinkering and orient it in a democratic direction.

We must translate the search for criteria by which to judge our practices into an attack upon the closure and the stability of these practices. We must enlarge our clarity of vision as well as our freedom of movement by pushing back the constraints that self-protective methods and institutions impose upon our goals of insight, production, solidarity, and self-development. In science as in politics, we must raise the level of energy to diminish the hold of contingent theoretical or institutional structures. Unless and until it is reoriented in this way, the quest for criteria of judgement ceases to be the beginning of a program and becomes instead the expression of an alibi.

Contemporary philosophers debate the respective merits of realism and constructivism, rationalism and historicism. Many students of such debates will have been struck by their perverse disconnection from practical results. It is as if the philosophers agreed about the bottom line - social-democratic liberalism in politics or the current repertory of theoretical orthodoxies in science - only to disagree about the top line - the right language in which to define and defend the best position. No wonder humanity yawns. The quarrel about the top line on the basis of agreement about the bottom line is a way of keeping disagreement within the family and leaving domesticated pragmatism unchallenged.

V

Under the aegis of domesticated pragmatism, a way of studying science has developed that naturalizes established scientific practices, describing them dispassionately and respectfully as a politically correct ethnographer might record the customs of a faraway people. Such a study eschews programmatic intentions. Who will take an interest in its observations? The working scientist will dismiss it as a superfluous curiosity while outsiders will find in it no help in seeing science with new eyes and in a different light.

The problem is a special case of a more universal difficulty. We can no longer credit - nor should we want to - the idea of a metadiscourse that confidently

delivers from on high marching orders to our social and cultural practices. However, we bleed democratic experimentalism of its vital force when we treat a passive and prostrate mapping of our practices as the sole alternative to a meta-physical super-science. We need to reinterpret and criticize our practices from positions at their periphery rather than from positions above them.

It is here that philosophy and democracy can best make common cause. The living residue in the old idea of philosophy is the determination to take at a discount the rigid divisions within our culture - in the name of the power of mind and personality to exceed presupposition and context, not in the name of first principles and ultimate foundations. Democracy, for its part, needs a reordering of the relation between experts and publics. Such a reordering cannot abolish the reality of expert knowledge. It can, however, restore to the general civic conversation, narrowed and thinned as it is, something of what was robbed from it by specialized knowledge and professional practice. The expert can become the technical assistant, rather than the technocratic replacement, of the public.

One way to grasp what is at stake in the contest between domesticated and radicalized pragmatism is to say that it is whether we shall develop such a practice for the criticism and revision of our practices. To develop it wholeheartedly and clearheadedly, we must develop it from a position that is like an accumulation of all the sidelines of all our practices. Such a project makes no pretense whatever to the position from on high. Radicalized pragmatism is simply the operational ideology of this practice-challenging practice. It is an organized and persistent second-guessing from the sidelines.

What, for example, does such a program imply for the study of science? Consider how we might begin to work out my earlier suggestions about a critical approach to contemporary science. The task is to identify - and to resist - the exorbitant influence that society and history - the society of science and the history of science - exert over the content of scientific ideas. For society, the society of science, read today the authoritarian discipline exercised by the university system and the stranglehold it imposes over career promotion and research opportunity in science. For history, read the particular sequence in which European science, now transformed into world science, developed. The point of resisting and counteracting these influences is to work toward an expanded, more diversified and less self-protective range of scientific practices, one that comes closer to the bone of the ultimate constraints imposed by our physical constitution and our natural situation.

The internal evolution of early-modern physics and of early-modern mathematics against the background of early-modern rationalism helped form the agenda of our science. An idea of timeless and deterministic explanation that began there has yet to meet its match. The major rival - probabilistic explanation - has also had to claim a basis in mathematics and to plead its case anew in each generation. Mathematical physics, as a timeless theory of the world, even when it includes a timeless theory of time, has remained the very model of a hard science. The prominence of historical explanation in the sciences that, like evolutionary biology, stand at furthest remove from this model has been seen as a stigma of explanatory weakness: many loosely connected sequences of change must take up some of the work generalizing explanations fail to execute. The principle remains,

even in natural history, that laws govern history, even if not comprehensively or immediately.

Cosmology has nevertheless sometimes suggested the opposite idea: that history governs laws. A set of laws holds good under certain conditions, corresponding to a certain stretch of the history of nature. From the vantage point of this idea the projects of deterministic and stochastic physics appear as the more local and derivative approaches and the linear time-orientation of natural history as the deeper insight.

We cannot tell whether the idea that history governs laws can be turned into a rich practice of explanation in different disciplines and domains because we live in a science that has for so long followed such a different track and held such a different image of what explanations should look like. The aim of the critical practice I describe is not to produce these different explanations. It is to broaden our collective sense of intellectual possibility, inviting attention to the unspoken exclusions that a triumphalist history of scientific ideas has forced upon us as part of the unreckoned cost of its triumphs.

If the history of ideas is the first of the constraints we must seek to loosen, the second is the authoritarian closure enforced by the institutional settings in which we do science. By far the most important of these settings is now the university. The university today is nothing if not a machine to ensure the control that a young person's elders and peers enjoy over his career and research opportunities. One by one, opportunities for the postponement of intellectual discipline and intellectual convergence have fallen aside: the otherworldly don who could announce that he would prove his claims later; the gentleman scientist who could retire from the world while continuing to enjoy access to the means of research, publication, and discussion; the charismatic and idiosyncratic thinker who could gather around himself a coterie of disciples, protected by the survival of distinct national traditions in his science.

Today, as the twentieth century draws to a close, science is organized globally, under the hegemony of the university system of the United States. In that system, career preferment comes from virtuosity in analysis and careful contributions made within clearcut ground rules. Making mistakes as quickly as possible may be someone's idea of science but it is no one's idea of a scientific career. Broken in youth by twenty years of test-taking and surveillance, old and half-dead by the time they are twenty-five, the spirits who inhabit this world make poor candidates for visionary defiance and devotion. Professorial tenure is for them too little and too late.

This circumstance is not written in the stars. Like any other social situation, it can be changed by changing the institutional arrangements that produce it. We must search for the functional equivalents in democracies to the devices that in predemocratic and protodemocratic societies ensured the practical conditions for intellectual divergence. We must do so for the sake of democracy and for the sake of science, insisting upon the partnership between democratic experimentalism and scientific relentlessness.

The war waged against the double constraint of social discipline and intellectual history gives no guarantee of larger scientific insight, just as the institutionalization of a higher-energy politics, in a more organized society,

provides no assurance of more freedom and equality. Nevertheless, in science as in democratic politics, we have no good reason to remain experimentalists by half. If we stop midway, we cannot maintain the revolutionary alliance between democracy and science. To keep going is the doctrine of radicalized pragmatism.

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