The Postmodern Condition: A Report on Knowledge

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The object of this study is the condition of knowledge in the most highly developed societies. I have decided to use the word *postmodern* to describe that condition. The word is in current use on the American continent among sociologists and critics; it designates the state of our culture following the transformations which, since the end of the nineteenth century, have altered the game rules for science, *literature*, and the *arts*. The present study will place these transformations in the context of the crisis of narratives.

[Science has always been in conflict with narratives. Judged by the yardstick of science, the majority of them prove to be fables. But to the extent that science does not restrict itself to stating useful regularities and seeks the truth, it is obliged to legitimize the rules of its own game. It then produces a discourse of legitimation with respect to its own status, a discourse called *philosophy*. I will use the term *modern* to designate any science that legitimates itself with reference to a metadiscourse of this kind making an explicit appeal to some grand narrative, such as the dialectics of *Spir*it, the hermeneutics of meaning, the emancipation of the rational or working subject, or the creation of wealth. For example, the rule of *consensus* between the sender and addressee of a statement with *truth-value* is deemed acceptable if it is cast in terms of a possible unanimity between rational minds: this is the Enlightenment narrative, in which]
the hero of knowledge works toward a good ethico-political end—universal peace. As can be seen from this example, if a metanarrative implying a philosophy of history is used to legitimate knowledge, questions are raised concerning the validity of the institutions governing the social bond: these must be legitimated as well. Thus justice is consigned to the grand narrative in the same way as truth.

Simplifying to the extreme, I define postmodern as incredulity toward metanarratives. This incredulity is undoubtedly a product of progress in the sciences: but that progress in turn presupposes it. To the obsolescence of the metanarrative apparatus of legitimation corresponds, most notably, the crisis of metaphysical philosophy and of the university institution which in the past relied on it. The narrative function is losing its function, its great hero, its great dangers, its great voyages, its great goal. It is being dispersed in clouds of narrative language elements—narrative, but also denotative, prescriptive, descriptive, and so on. Conveyed within each cloud are pragmatic valencies specific to its kind. Each of us lives at the intersection of many of these. However, we do not necessarily establish stable language combinations, and the properties of the ones we do establish are not necessarily communicable.

Thus the society of the future falls less within the province of a Newtonian anthropology (such as structuralism or systems theory) than a pragmatics of language particles. There are many different language games—a heterogeneity of elements. They only give rise to institutions in patches—local determinism.

The decision makers, however, attempt to manage these clouds of sociality according to input/output matrices, following a logic which implies that their elements are commensurable and that the whole is determinable. They allocate our lives for the growth of power. In matters of social justice and of scientific truth alike, the legitimation of that power is based on its optimizing the system’s performance—efficiency. The application of this criterion to all of our games necessarily entails a certain level of terror, whether soft or hard: be operational (that is, commensurable) or disappear.

The logic of maximum performance is no doubt inconsistent in many ways, particularly with respect to contradiction in the socio-economic field: it demands both less work (to lower production costs) and more (to lessen the social burden of the idle population). But our incredulity is now such that we no longer expect salvation to rise from these inconsistencies, as did Marx.

Still, the postmodern condition is as much a stranger to disenchantment as it is to the blind positivity of delegitimation. Where, after
1. The Field: Knowledge in Computerized Societies

Our working hypothesis is that the status of knowledge is altered as societies enter what is known as the postindustrial age, and cultures enter what is known as the postmodern age. This transition has been under way since at least the end of the 1950s, which for Europe marks the completion of reconstruction. The pace is faster or slower depending on the country, and within countries it varies according to the sector of activity: the general situation is one of temporal disjunction which makes sketching an overview difficult. A portion of the description would necessarily be conjectural. At any rate, we know that it is unwise to put too much faith in futurology.

Rather than painting a picture that would inevitably remain incomplete, I will take as my point of departure a single feature, one that immediately defines our object of study. Scientific knowledge is a kind of discourse. And it is fair to say that for the last forty years the "leading" sciences and technologies have had to do with language: phonology and theories of linguistics, problems of communication and cybernetics, modern theories of algebra and informatics, computers and their languages, problems of translation and the search for areas of compatibility among computer languages, problems of information storage and data banks, telematics and the
perfection of intelligent terminals, paradoxology. The facts speak for themselves (and this list is not exhaustive).

These technological transformations can be expected to have a considerable impact on knowledge. Its two principal functions—research and the transmission of acquired learning—are already feeling the effect, or will in the future, With respect to the first function, genetics provides an example that is accessible to the layman: it owes its theoretical paradigm to cybernetics. Many other examples could be cited. As for the second function, it is common knowledge that the miniaturization and commercialization of machines is already changing the way in which learning is acquired, classified, made available, and exploited. It is reasonable to suppose that the proliferation of information-processing machines is having, and will continue to have, as much of an effect on the circulation of learning as did advancements in human circulation (transportation systems) and later, in the circulation of sounds and visual images (the media).

The nature of knowledge cannot survive unchanged within this context of general transformation. It can fit into the new channels, and become operational, only if learning is translated into quantities of information. We can predict that anything in the constituent body of knowledge that is not translatable in this way will be abandoned and that the direction of new research will be dictated by the possibility of its eventual results being translatable into computer language. The ‘producers’ and users of knowledge must now, and will have to, possess the means of translating into these languages whatever they want to invent or learn. Research on translating machines is already well advanced. Along with the hegemony of computers comes a certain logic, and therefore a certain set of prescriptions determining which statements are accepted as ‘knowledge’ statements.

We may thus expect a thorough exteriorization of knowledge with respect to the ‘knower’, at whatever point he or she may occupy in the knowledge process. The old principle that the acquisition of knowledge is indissociable from the training (Bildung) of minds, or even of individuals, is becoming obsolete and will become ever more so. The relationship of the suppliers and users of knowledge to the knowledge they supply and use is now tending, and will increasingly tend, to assume the form already taken by the relationship of commodity producers and consumers to the commodities they produce and consume: that is, the form of value. Knowledge is and will be produced in order to be sold, it is and will be consumed in order to be valorized in a new production: in both cases, the goal is exchange.

Knowledge ceases to be an end in itself, it loses its ‘use-value’. It is widely accepted that knowledge has become the principle force of production over the last few decades, this has already had a noticeable effect on the composition of the work force of the most highly developed countries and constitutes the major bottleneck for the developing countries. In the postindustrial and postmodern age, science will maintain and no doubt strengthen its preeminence in the arsenal of productive capacities of the nation-states. Indeed, this situation is one of the reasons leading to the conclusion that the gap between developed and developing countries will grow ever wider in the future.

But this aspect of the problem should not be allowed to overshadow the other, which is complementary to it. Knowledge in the form of an informational commodity indispensable to productive power is already, and will continue to be, a major—perhaps the major—stake in the worldwide competition for power. It is conceivable that the nation-states will one day fight for control of information, just as they battled in the past for control over territory, and afterwards for control of access to and exploitation of raw materials and cheap labor. A new field is opened for industrial and commercial strategies on the one hand, and political and military strategies on the other.

However, the perspective I have outlined above is not as simple as I have made it appear. For the mercantilization of knowledge is bound to affect the privilege the nation-states have enjoyed, and still enjoy, with respect to the production and distribution of learning. The notion that learning falls within the purview of the State, as the brain or mind of society, will become more and more outdated with the increasing strength of the opposing principle, according to which society exists and progresses only if the messages circulating within it are rich in information and easy to decode. The ideology of communicational ‘transparency’, which goes hand in hand with the commercialization of knowledge, will begin to perceive the State as a factor of opacity and ‘noise.’ It is from this point of view that the problem of the relationship between economic and State powers threatens to arise with a new urgency.

Already in the last few decades, economic powers have reached the point of imperiling the stability of the State through new forms of the circulation of capital that go by the generic name of multinational corporations. These new forms of circulation imply that investment decisions have, at least in part, passed beyond the control of the nation-states. The question threatens to become even more
thorny with the development of computer technology and telematics. Suppose, for example, that a firm such as IBM is authorized to occupy a belt in the earth's orbital field and launch communications satellites or satellites housing data banks. Who will have access to them? Who will determine which channels or data are forbidden? The State? Or will the State simply be one user among others? New legal issues will be raised—and with them the question: "who will know?"

Transformation in the nature of knowledge, then, could well have repercussions on the existing public powers, forcing them to reconsider their relations (both de jure and de facto) with the large corporations and, more generally, with civil society. The reopening of the world market, a return to vigorous economic competition, the breakdown of the hegemony of American capitalism, the decline of the socialist alternative, a probable opening of the Chinese market—these and many other factors are already, at the end of the 1970s, preparing States for a serious reappraisal of the role they have been accustomed to playing since the 1930s: that of guiding, or even directing investments. In this light, the new technologies can only increase the urgency of such a reexamination, since they make the information used in decision making (and therefore the means of control) even more mobile and subject to piracy.

It is not hard to visualize learning circulating along the same lines as money, instead of for its "educational" value or political (administrative, diplomatic, military) importance; the pertinent distinction would no longer be between knowledge and ignorance, but rather, as is the case with money, between "payment knowledge" and "investment knowledge"—in other words, between units of knowledge exchanged in a daily maintenance framework (the reconstitution of the work force, "survival") versus funds of knowledge dedicated to optimizing the performance of a project.

If this were the case, communicational transparency would be similar to liberalism. Liberalism does not preclude an organization of the flow of money in which some channels are used in decision making while others are only good for the payment of debts. One could similarly imagine flows of knowledge traveling along identical channels of identical nature, some of which would be reserved for the "decision makers," while the others would be used to repay each person's perpetual debt with respect to the social bond.

2. The Problem: Legitimation

That is the working hypothesis defining the field within which I intend to consider the question of the status of knowledge. This scenario, akin to the one that goes by the name "the computerization of society" (although ours is advanced in an entirely different spirit), makes no claims of being original, or even true. What is required of a working hypothesis is a fine capacity for discrimination. The scenario of the computerization of the most highly developed societies allows us to spotlight (though with the risk of excessive magnification) certain aspects of the transformation of knowledge and its effects on public power and civil institutions—effects it would be difficult to perceive from other points of view. Our hypothesis, therefore, should not be accorded predictive value in relation to reality, but strategic value in relation to the question raised.

Nevertheless, it has strong credibility, and in that sense our choice of this hypothesis is not arbitrary. It has been described extensively by the experts and is already guiding certain decisions by the governmental agencies and private firms most directly concerned, such as those managing the telecommunications industry. To some extent, then, it is already part of observable reality. Finally, barring economic stagnation or a general recession (resulting, for example, from a continued failure to solve the world's energy problems), there is a good chance that this scenario will come to pass: it is hard to see what other direction contemporary technology could take as an alternative to the computerization of society.

This is as much as to say that the hypothesis is banal. But only to the extent that it fails to challenge the general paradigm of progress in science and technology, to which economic growth and the expansion of sociopolitical power seem to be natural complements. That scientific and technical knowledge is cumulative is never questioned. At most, what is debated is the form that accumulation takes—some picture it as regular, continuous, and unanimous, others as periodic, discontinuous, and conflictual.

But these truisms are fallacious. In the first place, scientific knowledge does not represent the totality of knowledge; it has always existed in addition to, and in competition with, another kind of knowledge, which I will call narrative in the interests of simplicity (its characteristics will be described later). I do not mean to say that narrative knowledge can prevail over science, but its model is related to ideas of internal equilibrium and conviviality next to which contemporary scientific knowledge cuts a poor figure, especially if it is to undergo an exteriorization with respect to the "knower" and an alienation from its user even greater than has previously been the case. The resulting deromization of researchers and teachers is far from negligible; it is well known that during the 1960s, in all of the most highly developed societies, it reached such
explosive dimensions among those preparing to practice these professions—the students—that there was noticeable decrease in productivity at laboratories and universities unable to protect themselves from its contamination. Exposing this, with hope or fear, to lead to a revolution (as was then often the case) is out of the question: it will not change the order of things in postindustrial society overnight. But this doubt on the part of scientists must be taken into account as a major factor in evaluating the present and future status of scientific knowledge.

It is all the more necessary to take it into consideration since—and this is the second point—the scientists’ demoralization has an impact on the central problem of legitimation. I use the word in a broader sense than do contemporary German theorists in their discussions of the question of authority. Take any civil law as an example: it states that a given category of citizens must perform a specific kind of action. Legitimation is the process by which a legislator is authorized to promulgate such a law as a norm. Now take the example of a scientific statement: it is subject to the rule that a statement must fulfill a given set of conditions in order to be accepted as scientific. In this case, legitimation is the process by which a “legislator” dealing with scientific discourse is authorized to prescribe the stated conditions (in general, conditions of internal consistency and experimental verification) determining whether a statement is to be included in that discourse for consideration by the scientific community.

The parallel may appear forced. But as we will see, it is not. The question of the legitimacy of science has been indissociably linked to that of the legitimation of the legislator since the time of Plato. From this point of view, the right to decide what is true is not independent of the right to decide what is just, even if the statements consigned to these two authorities differ in nature. The point is that there is a strict interlinkage between the kind of language called science and the kind called ethics and politics: they both stem from the same perspective, the same “choice” if you will—the choice called the Occident.

When we examine the current status of scientific knowledge—at a time when science seems more completely subordinated to the prevailing powers than ever before and, along with the new technologies, is in danger of becoming a major stake in their conflicts—the question of double legitimation, far from receding into the background, necessarily comes to the fore. For it appears in its most complete form, that of reversion, revealing that knowledge and power are simply two sides of the same question: who decides what knowledge is, and who knows what needs to be decided? In the computer age, the question of knowledge is now more than ever a question of government.

3. The Method: Language Games

The reader will already have noticed that in analyzing this problem within the framework set forth I have favored a certain procedure: emphasizing facts of language and in particular their pragmatic aspect. To help clarify what follows it would be useful to summarize, however briefly, what is meant here by the term pragmatic.

A denotative utterance, such as “The university is sick,” made in the context of a conversation or an interview, positions its sender (the person who utters the statement), its addressee (the person who receives it), and its referent (what the statement deals with) in a specific way: the utterance places (and exposes) the sender in the position of “knower” (he knows what the situation is with the university), the addressee is put in the position of having to give or refuse his assent, and the referent itself is handled in a way unique to denotatives, as something that demands to be correctly identified and expressed by the statement that refers to it.

If we consider a declaration such as “The university is open,” pronounced by a dean or rector at convocation, it is clear that the previous specifications no longer apply. Of course, the meaning of the utterance has to be understood, but that is a general condition of communication and does not aid us in distinguishing the different kinds of utterances or their specific effects. The distinctive feature of this second, “performative,” utterance is that its effect upon the referent coincides with its enunciation. The university is open because it has been declared open in the above-mentioned circumstances. That this is so is not subject to discussion or verification on the part of the addressee, who is immediately placed within the new context created by the utterance. As for the sender, he must be invested with the authority to make such a statement. Actually, we could say it the other way around: the sender is dean or rector that is, he is invested with the authority to make this kind of statement—only insofar as he can directly affect both the referent (the university) and the addressee (the university staff) in the manner I have indicated.

A different case involves utterances of the type, “Give money to
the university”; these are prescriptions. They can be modulated as orders, commands, instructions, recommendations, requests, prayers, pleas, etc. Here, the sender is clearly placed in a position of authority, using the term broadly (including the authority of a sinner over a god who claims to be merciful): that is, he expects the addressee to perform the action referred to. The pragmatics of prescription entail concomitant changes in the posts of addressee and referent.31

Of a different order again is the efficiency of a question, a promise, a literary description, a narration, etc. I am summarizing. Wittgenstein, taking up the study of language again from scratch, focuses his attention on the effects of different modes of discourse; he calls the various types of utterances he identifies along the way (a few of which I have listed) language games.32 What he means by this term is that each of the various categories of utterance can be defined in terms of rules specifying their properties and the uses to which they can be put—in exactly the same way as the game of chess is defined by a set of rules determining the properties of each of the pieces, in other words, the proper way to move them.

It is useful to make the following three observations about language games. The first is that their rules do not carry within themselves their own legitimation, but are the object of a contract, explicit or not, between players (which is not to say that the players invent the rules). The second is that if there are no rules, there is no game, that even an infinitesimal modification of one rule alters the nature of the game, that a “move” or utterance that does not satisfy the rules does not belong to the game they define. The third remark is suggested by what has just been said: every utterance should be thought of as a “move” in a game.

This last observation brings us to the first principle underlying our method as a whole: to speak is to fight, in the sense of playing, and speech acts34 fall within the domain of a general agonistics.35 This does not necessarily mean that one plays in order to win. A move can be made for the sheer pleasure of its invention: what else is involved in that labor of language harassment undertaken by popular speech and by literature? Great joy is had in the endless invention of turns of phrase, of words and meanings, the process behind the evolution of language on the level of parole. But undoubtedly even this pleasure depends on a feeling of success won at the expense of an adversary—at least one adversary, and a formidable one: the accepted language, or connotation.36

This idea of an agonistics of language should not make us lose sight of the second principle, which stands as a complement to it and governs our analysis: that the observable social bond is composed of language “moves.” An elucidation of this proposition will take us to the heart of the matter at hand.

4. The Nature of the Social Bond: The Modern Alternative

If we wish to discuss knowledge in the most highly developed contemporary society, we must answer the preliminary question of what methodological representation to apply to that society. Simplifying to the extreme, it is fair to say that in principle there have been, at least over the last half-century, two basic representational models for society: either society forms a functional whole, or it is divided in two. An illustration of the first model is suggested by Talcott Parsons (at least the postwar Parsons) and his school, and of the second, by the Marxist current (all of its component schools, whatever differences they may have, accept both the principle of class struggle and dialectics as a duality operating within society).37

This methodological split, which defines two major kinds of discourse on society, has been handed down from the nineteenth century. The idea that society forms an organic whole, in the absence of which it ceases to be a society (and sociology ceases to have an object of study), dominated the minds of the founders of the French school. Added detail was supplied by functionalism; it took yet another turn in the 1950s with Parsons’s conception of society as a self-regulating system. The theoretical and even material model is no longer the living organism; it is provided by cybernetics, which, during and after the Second World War, expanded the model’s applications.

In Parsons’s work, the principle behind the system is still, if I may say so, optimistic: it corresponds to the stabilization of the growth economies and societies of abundance under the aegis of a moderate welfare state.38 In the work of contemporary German theorists, systemtheorie is technocratic, even cynical, not to mention despairing: the harmony between the needs and hopes of individuals or groups and the functions guaranteed by the system is now only a secondary component of its functioning. The true goal of the system, the reason it programs itself like a computer, is the optimization of the global relationship between input and output—in other words, performativity. Even when its rules are in the process of changing and innovations are occurring, even when its dysfunctions (such as strikes, crises, unemployment, or political revolutions) inspire hope and lead to belief in an alternative, even then what is
It is tempting to avoid the decision altogether by distinguishing two kinds of knowledge. One, the positivist kind, would be directly applicable to technologies bearing on men and materials, and would lend itself to operating as an indispensable productive force within the system. The other—the critical, reflexive, or hermeneutic kind—by reflecting directly or indirectly on values or aims, would resist any such “recuperation.”

5. The Nature of the Social Bond: The Postmodern Perspective

I find this partition solution unacceptable. I suggest that the alternative it attempts to resolve, but only reproduces, is no longer relevant for the societies with which we are concerned and that the solution itself is still caught within a type of oppositional thinking that is out of step with the most vital modes of postmodern knowledge. As I have already said, economic “redeployment” in the current phase of capitalism, aided by a shift in techniques and technology, goes hand in hand with a change in the function of the State: the image of society this syndrome suggests necessitates a serious revision of the alternate approaches considered. For brevity’s sake, suffice it to say that functions of regulation, and therefore of reproduction, are being and will be further withdrawn from administrators and entrusted to machines. Increasingly, the central question is becoming who will have access to the information these machines must have in storage to guarantee that the right decisions are made. Access to data is, and will continue to be, the prerogative of experts of all stripes. The ruling class is and will continue to be the class of decision makers. Even now it is no longer composed of the traditional political class, but of a composite layer of corporate leaders, high-level administrators, and the heads of the major professional, labor, political, and religious organizations.

What is new in all of this is that the old poles of attraction represented by nation-states, parties, professions, institutions, and historical traditions are losing their attraction. And it does not look as though they will be replaced, at least not on their former scale. The Trilateral Commission is not a popular pole of attraction. “Identifying” with the great names, the heroes of contemporary history, is becoming more and more difficult. Dedicating oneself to “catching up with Germany,” the life goal the French president [Giscard d’Estaing at the time this book was published in France] seems to be offering his countrymen, is not exactly exciting. But then again, it is not exactly a life goal. It depends on each individual’s industriousness. Each individual is referred to himself. And each of us knows that our self does not amount to much. This breaking up of the grand Narratives (discussed below, sections 9 and 10) leads to what some authors analyze in terms of the dissolubility of the social bond and the disintegration of social aggregates into a mass of individual atoms thrown into the absurdity of Brownian motion. Nothing of the kind is happening: this point of view, it seems to me, is haunted by the paradisical representation of a lost “organic” society.

A self does not amount to much, but no self is an island; each exists in a fabric of relations that is now more complex and mobile than ever before. Young or old, man or woman, rich or poor, a person is always located at “nodal points” of specific communication circuits, however tiny these may be. Or better: one is always located at a post through which various kinds of messages pass. No one, not even the least privileged among us, is ever entirely powerless over the messages that traverse and position him at the post of sender, addressee, or referent. One’s mobility in relation to these language game effects (language games, of course, are what this is all about) is tolerable, at least within certain limits (and the limits are vague); it is even solicited by regulatory mechanisms, and in particular by the self-adjustments the system undertakes in order to improve its performance. It may even be said that the system can and must encourage such movement to the extent that it combats its own entropy; the novelty of an unexpected “move,” with its correlative displacement of a partner or group of partners, can supply the system with that increased performativity it forever demands and consumes.

It should now be clear from which perspective I chose language games as my general methodological approach. I am not claiming that the entirety of social relations is of this nature—that will remain an open question. But there is no need to resort to some fiction of social origins to establish that language games are the minimum relation required for society to exist: even before he is born, if only by virtue of the name he is given, the human child is already positioned as the referent in the story recounted by those around him, in relation to which he will inevitably chart his course. Or more simply still, the question of the social bond, insofar as it is a question, is itself a language game, the game of inquiry. It immediately positions the person who asks, as well as the addressee and the referent asked about; it is already the social bond.
On the other hand, in a society whose communication component is becoming more prominent day by day, both as a reality and as an issue, it is clear that language assumes a new importance. It would be superficial to reduce its significance to the traditional alternative between manipulatory speech and the unilateral transmission of messages on the one hand, and free expression and dialogue on the other.

A word on this last point. If the problem is described simply in terms of communication theory, two things are overlooked: first, messages have quite different forms and effects depending on whether they are, for example, denotative, prescriptive, evaluative, performative, etc. It is clear that what is important is not simply the fact that they communicate information. Reducing them to this function is to adopt an outlook which unduly privileges the system's own interests and point of view. A cybernetic machine does indeed run on information, but the goals programmed into it, for example, originate in prescriptive and evaluative statements. It has no way to correct in the course of its functioning—for example, maximizing its performance. How can one guarantee that performance maximization is the best goal for the social system in every case? In any case, the "atoms" forming its matter are competent to handle statements such as these—and this question in particular.

Second, the trivial cybernetic version of information theory misses something of decisive importance, to which I have already called attention: the agonistic aspect of society. The atoms are placed at the crossroads of pragmatic relationships, but they are also displaced by the messages that traverse them, in perpetual motion. Each language partner, when a "move" pertaining to him is made, undergoes a "displacement," an alteration of some kind that not only affects him in his capacity as addressee and referent, but also as sender. These "moves" necessarily provoke "countermoves"—and everyone knows that a countermove that is merely reactive is not a "good" move. Reational countermoves are no more than programmed effects in the opponent's strategy; they play into his hands and thus have no effect on the balance of power. That is why it is important to increase displacement in the games, and even to disorient it, in such a way as to make an unexpected "move" (a new statement).

What is needed if we are to understand social relations in this manner, on whatever scale we choose, is not only a theory of communication, but a theory of games which accepts agonistics as a founding principle. In this context, it is easy to see that the essential element of newness is not simply "innovation." Support for this approach can be found in the work of a number of contemporary sociologists, in addition to linguists and philosophers of language. This "atomization" of the social into flexible networks of language games may seem far removed from the modern reality, which is depicted, on the contrary, as afflicted with bureaucratic paralysis. The objection will be made, at least, that the weight of certain institutions imposes limits on the games, and thus restricts the inventiveness of the players in making their moves. But I think this can be taken into account without causing any particular difficulty.

In the ordinary use of discourse—for example, in a discussion between two friends—the interlocutors use any available ammunition, changing games from one utterance to the next: questions, requests, assertions, and narratives are launched pell-mell into battle. The war is not without rules, but the rules allow and encourage the greatest possible flexibility of utterance.

From this point of view, an institution differs from a conversation in that it always requires supplementary constraints for statements to be declared admissible within its bounds. The constraints function to filter discursive potentials, interrupting possible connections in the communication networks: there are things that should not be said. They also privilege certain classes of statements (sometimes only one) whose predominance characterizes the discourse of the particular institution: there are things that should be said, and there are ways of saying them. Thus: orders in the army, prayer in church, denotation in the schools, narration in families, questions in philosophy, performativity in businesses. Bureaucratization is the outer limit of this tendency.

However, this hypothesis about the institution is still too "unwieldy": its point of departure is an overly "reifying" view of what is institutionalized. We know today that the limits the institution imposes on potential language "moves" are never established once and for all (even if they have been formally defined). Rather, the limits are themselves the stakes and provisional results of language strategies, within the institution and without. Examples: Does the university have a place for language experiments (poetics)? Can you tell stories in a cabinet meeting? Advocate a cause in the barracks? The answers are clear: yes, if the university opens creative workshops; yes, if the cabinet works with prospective scenarios; yes, if the limits of the old institution are displaced. Reciprocally, it can be said that the boundaries only stabilize when they cease to be stakes in the game.

This, I think, is the appropriate approach to contemporary institutions of knowledge.
no more than note the connection. The theory helps us understand how research centered on singularities and "incommensurabilities" is applicable to the pragmatics of the most everyday problems.

The conclusion we can draw from this research (and much more not mentioned here) is that the continuous differentiable function is losing its preeminence as a paradigm of knowledge and prediction. Postmodern science—by concerning itself with such things as undecidables, the limits of precise control, conflicts characterized by incomplete information, "fracta," catastrophes, and pragmatic paradoxes—is theorizing its own evolution as discontinuous, catastrophic, nonrectifiable, and paradoxical. It is changing the meaning of the word knowledge, while expressing such a change can take place.

It is producing not the known, but the unknown. And it suggests a model of legitimation that has nothing to do with maximized performance, but has as its basis difference understood as paralogy. 207

A game theory specialist whose work is moving in this same direction said it well: "Wherein, then, does the usefulness of game theory lie? Game theory, we think, is useful in the same sense that any sophisticated theory is useful, namely as a generator of ideas."208 P. B. Medawar, for his part, has stated that "having ideas is the scientist's highest accomplishment,"209 that there is no "scientific method,"210 and that a scientist is before anything else a person who "tells stories." The only difference is that he is duty bound to verify them. 7

14. Legitimation by Paralogy

Let us say at this point that the facts we have presented concerning the problem of the legitimation of knowledge today are sufficient for our purposes. We no longer have recourse to the grand narratives—we can resort neither to the dialectic of Spirit nor even to the emancipation of humanity as a validation for postmodern scientific discourse. But as we have just seen, the little narrative (petit récit) remains the quintessential form of imaginative invention, most particularly in science. 262 In addition, the principle of consensus as a criterion of validation seems to be inadequate. It has two formulations. In the first, consensus is an agreement between men, defined as knowing intellects and free wills, and is obtained through dialogue. This is the form elaborated by Habermas, but his conception is based on the validity of the narrative of emancipation. In the second, consensus is a component of the system, which manipulates it in order to maintain and improve its performance. 212 It is the object of administrative procedures, in Luhmann's sense. In this case, its only validity is as an instrument to be used toward achieving the real goal, which is what legitimates the system—power.

The problem is therefore to determine whether it is possible to have a form of legitimation based solely on paralogy. Paralogy must be distinguished from innovation: the latter is under the command of the system, or at least used by it to improve its efficiency; the former is a move (the importance of which is often not recognized until later) played in the pragmatics of knowledge. The fact that it is in reality frequently, but not necessarily, the case that one is transformed into the other presents no difficulties for the hypothesis.

Returning to the description of scientific pragmatics (section 7), it is now clear that this must be emphasized. Consensus is a horizon that is never reached. Research that takes place under the aegis of a paradigm 213 tends to stabilize; it is like the exploitation of a technological, economic, or artistic "idea." It cannot be discarded. But what is striking is that someone always comes along to disturb the order of "reason." It is necessary to posit the existence of a power that destabilizes the capacity for explanation, manifested in the promulgation of new norms for understanding or, if one prefers, in a proposal to establish new rules circumscribing a new field of research for the language of science. This, in the context of scientific discussion, is the same process Thom calls morphogenesis. It is not without rules (there are classes of catastrophes), but it is always locally determined. Applied to scientific discussion and placed in a temporal framework, this property implies that "discoveries" are unpredictable. In terms of the idea of transparency, it is a factor that generates blind spots and defers consensus. 214

This summary makes it easy to see that systems theory and the kind of legitimation it proposes have no scientific basis whatsoever; science itself does not function according to this theory's paradigm of the system, and contemporary science excludes the possibility of using such a paradigm to describe society.

In this context, let us examine two important points in Luhmann's argument. On the one hand, the system can only function by reducing complexity, and on the other, it must induce the adaptation of individual aspirations to its own ends. 215 The reduction in complexity is required to maintain the system's power capability. If all messages could circulate freely among all individuals, the quantity of the information that would have to be taken into account before making the correct choice would delay decisions considerably, thereby lowering performativity. Speed, in effect, is a power component of the system.
The objection will be made that these molecular opinions must indeed be taken into account if the risk of serious disturbances is to be avoided. Luhmann replies—and this is the second point—that it is possible to guide individual aspirations through a process of “quasi-apprenticeship,” “free of all disturbance,” in order to make them compatible with the system’s decisions. The decisions do not have to respect individuals’ aspirations: the aspirations have to aspire to the decisions, or at least to their effects. Administrative procedures should make individuals “want” what the system needs in order to perform well. It is easy to see what role telematics technology could play in this.

It cannot be denied that there is persuasive force in the idea that context control and domination are inherently better than their absence. The performativity criterion has its “advantages.” It excludes in principle adherence to a metaphysical discourse; it requires the renunciation of fables; it demands clear minds and cold wills; it replaces the definition of essences with the calculation of interactions; it makes the “players” assume responsibility not only for the statements they propose, but also for the rules to which they submit those statements in order to render them acceptable. It brings the pragmatic functions of knowledge clearly to light, to the extent that they seem to relate to the criterion of efficiency: the pragmatics of argumentation, of the production of proof, of the transmission of learning, and of the apprenticeship of the imagination.

It also contributes to elevating all language games to self-knowledge, even those not within the realm of canonical knowledge. It tends to jolt everyday discourse into a kind of mediacourse: ordinary statements are now displaying a propensity for self-citation, and the various pragmatic terms are tending to make an indirect connection even to current messages concerning them. Finally, it suggests that the problems of internal communication experienced by the scientific community in the course of its work of dismantling and remounting its languages are comparable in nature to the problems experienced by the social collectivity when, deprived of its narrative culture, it must reexamine its own internal communication and in the process question the nature of the legitimacy of the decisions made in its name.

At risk of scandalizing the reader, I would also say that the system can count severity among its advantages. Within the framework of the power criterion, a request (that is, a form of prescription) gains nothing in legitimacy by virtue of being based on the hardship of an unmet need. Rights do not flow from hardship, but from the fact that the alleviation of hardship improves the system’s performance. The needs of the most underprivileged should not be used as a system regulator as a matter of principle: since the means of satisfying them is already known, their actual satisfaction will not improve the system’s performance, but only increase its expenditures. The only counterindication is that not satisfying them can destabilize the whole. It is against the nature of force to be ruled by weakness. But it is in its nature to induce new requests meant to lead to a redefinition of the norms of “life.” In this sense, the system seems to be a vanguard machine dragging humanity after it, dehumanizing it in order to rehumanize it at a different level of normative capacity. The technocrats declare that they cannot trust what society designates as its needs; they “know” that society cannot know its own needs since they are not variables independent of the new technologies. Such is the arrogance of the decision makers—and their blindness.

What their “arrogance” means is that they identify themselves with the social system conceived as a totality in quest of its most performative unity possible. If we look at the pragmatics of science, we learn that such an identification is impossible: in principle, no scientist embodies knowledge or neglects the “needs” of a research project, or the aspirations of a researcher, on the pretext that they do not add to the performance of “science” as a whole. The response a researcher usually makes to a request is: “We’ll have to see, tell me your story.” In principle, he does not prejudge that a case has already been closed or that the power of “science” will suffer if it is reopened. In fact, the opposite is true.

Of course, it does not always happen like this in reality. Countless scientists have seen their “move” ignored or repressed, sometimes for decades, because it too abruptly destabilized the accepted positions, not only in the university and scientific hierarchy, but also in the problematic. The stronger the “move,” the more likely it is to be denied the minimum consensus, precisely because it changes the rules of the game upon which consensus had been based. But when the institution of knowledge functions in this manner, it is acting like an ordinary power center whose behavior is governed by a principle of homeostasis.

Such behavior is terrorist, as is the behavior of the system described by Luhmann. By terror I mean the efficiency gained by eliminating, or threatening to eliminate, a player from the language game one shares with him. He is silenced or consents, not because he has
been refuted, but because his ability to participate has been threatened (there are many ways to prevent someone from playing). The decision makers' arrogance, which in principle has no equivalent in the sciences, consists in the exercise of terror. It says: 'Adapt your aspirations to our ends—or else.'

Even permissiveness toward the various games is made conditional on performativity. The redefinition of the norms of life consists in enhancing the system's competence for power. That this is the case is particularly evident in the introduction of telematics technology: the technocrats see in telematics a promise of liberalization and enrichment in the interactions between interlocutors; but what makes this process attractive for them is that it will result in new tensions in the system, and these will lead to an improvement in its performativity.

To the extent that science is differential, its pragmatics provides the antimodel of a stable system. A statement is deemed worth retaining the moment it marks a difference from what is already known, and after an argument and proof in support of it has been found. Science is a model of an "open system," in which a statement becomes relevant if it "generates ideas," that is, if it generates other statements and other game rules. Science possesses no general metalanguage in which all other languages can be transcribed and evaluated. This is what prevents its identification with the system and, all things considered, with terror. If the division between decision makers and executors exists in the scientific community (and it does), it is a fact of the socioeconomic system and not of the pragmatics of science itself. It is in fact one of the major obstacles to the imaginative development of knowledge.

The general question of legitimation becomes: What is the relationship between the antimodel of the pragmatics of science and society? Is it applicable to the vast clouds of language material constituting a society? Or is it limited to the game of learning? And if so, what role does it play with respect to the social bond? Is it an impossible ideal of an open community? Is it an essential component for the subset of decision makers, whoForce on society the performance criterion they reject for themselves. Or, conversely, is it a refusal to cooperate with the authorities, a move in the direction of counterculture, with the attendant risk that all possibility for research will be foreclosed due to lack of funding?

From the beginning of this study, I have emphasized the differences (not only formal, but also pragmatic) between the various language games, especially between denotative, or knowledge, games and prescriptive, or action, games. The pragmatics of science is centered on denotative utterances, which are the foundation upon which it builds institutions of learning (institutes, centers, universities, etc.). But its postmodern development brings a decisive "fact" to the fore: even discussions of denotative statements need to have rules. Rules are not denotative but prescriptive utterances, which we are better off calling metaprescriptive utterances to avoid confusion (they prescribe what the moves of language games must be in order to be admissible). The function of the differential or imaginative or paralogical activity of the current pragmatics of science is to point out these metaprescriptive (science's "presuppositions") and to petition the players to accept different ones. The only legitimation that can make this kind of request admissible is that it will generate ideas, in other words, new statements.

Social pragmatics does not have the "simplicity" of scientific pragmatics. It is a monster formed by the intertwining of various networks of heteromorphic classes of utterances (denotative, prescriptive, performative, technical, evaluative, etc.). There is no reason to think that it would be possible to determine metaprescriptions common to all of these language games or that a revisable consensus like the one in force at a given moment in the scientific community could embrace the totality of metaprescriptions regulating the totality of statements circulating in the social collectivity. As a matter of fact, the contemporary decline of narratives of legitimation—be they traditional or "modern" (the emancipation of humanity, the realization of the Idea)—is tied to the abandonment of this belief. It is its absence for which the ideology of the "system," with its pretensions to totality, tries to compensate and which it expresses in the cynicism of its criterion of performance.

For this reason, it seems neither possible, nor even prudent, to follow Habermas in orienting our treatment of the problem of legitimation in the direction of a search for universal consensus through what he calls Diskurs, in other words, a dialogue of argumentation.

This would be to make two assumptions. The first is that it is possible for all speakers to come to agreement on which rules of metaprescriptions are universally valid for language games, when it is clear that language games are heteromorphic, subject to heterogeneous sets of pragmatic rules.

The second assumption is that the goal of dialogue is consensus. But as I have shown in the analysis of the pragmatics of science, consensus is only a particular state of discussion, not its end. Its end,
on the contrary, is paralogy. This double observation (the heterogeneity of the rules and the search for dissent) destroys a belief that
still underlies Habermas's research, namely, that humanity as a collective (universal) subject seeks its common emancipation through
the regularization of the "moves" permitted in all language games
and that the legitimacy of any statement resides in its contributing
to that emancipation. 229

It is easy to see what function this recourse plays in Habermas's
argument against Luhmann. Diskurs is his ultimate weapon against
the theory of the stable system. The cause is good, but the argument
is not. 230 Consensus has become an outmoded and suspect value. But
justice as a value is neither outmoded nor suspect. We must thus
arrive at an idea and practice of justice that is not linked to that of
consensus.

A recognition of the heteromorphous nature of language games is
a first step in that direction. This obviously implies a renunciation of
terror, which assumes that they are isomorphic and tries to make
them so. The second step is the principle that any consensus on the
rules defining a game and the "moves" playable within it must
be local, in other words, agreed on by its present players and subject
to eventual cancellation. The orientation then favors a multiplicity
of finite meta-arguments, by which I mean argumentation that con-
cerns metaprescriptive and is limited in space and time.

This orientation corresponds to the course that the evolution of
social interaction is currently taking: the temporary contract is in
practice supplanting permanent institutions in the professional,
emotional, sexual, cultural, family, and international domains, as
well as in political affairs. This evolution is of course ambiguous:
the temporary contract is favored by the system due to its greater flexi-
bility, lower cost, and the creative turmoil of its accompanying moti-
vations—all of these factors contribute to increased operativity. In
any case, there is no question here of proposing a "pure" alternative
to the system: we all know, as the 1970s come to a close, that
an attempt at an alternative of that kind would end up resembling
the system it was meant to replace. We should be happy that the
tendency toward the temporary contract is ambiguous: it is not
totally subordinated to the goal of the system, yet the system toler-
ates it. This bears witness to the existence of another goal within the
system: knowledge of language games as such and the decision to
assume responsibility for their rules and effects. Their most signifi-
cant effect is precisely what validates the adoption of rules—the
quest for paralogy.

We are finally in a position to understand how the computeriza-
tion of society affects this problematic. It could become the "dream
instrument for controlling and regulating the market system, ex-
tended to include knowledge itself and governed exclusively by the
performativity principle. In that case, it would inevitably involve
the use of terror. But it could also aid groups discussing metapre-
scriptive by supplying them with the information they usually
lack for making knowledgeable decisions. The line to follow for
computerization to take the second of these two paths is, in prin-
ciple, quite simple: give the public free access to the memory and
data banks. 231 Language games would then be games of perfect
information at any given moment. But they would also be non-
zero-sum games, and by virtue of that fact discussion would never
risk fixating in a position of minimax equilibrium because it had
exhausted its stakes. For the stakes would be knowledge (or infor-
mation, if you will), and the reserve of knowledge—language's re-
serve of possible utterances—is inexhaustible. This sketches the
outline of a politics that would respect both the desire for justice and
the desire for the unknown. 

A Demand

This is a period of slackening—I refer to the color of the times. From every direction we are being urged to put an end to experimentation, in the arts and elsewhere. I have read an art historian who extols realism and is militant for the advent of a new subjectivity. I have read an art critic who packages and sells "Transavantgardism" in the marketplace of painting. I have read that under the name of postmodernism, architects are getting rid of the Bauhaus project, throwing out the baby of experimentation with the bathwater of functionalism. I have read that a new philosopher is discovering what he drolluly calls Judaeo-Christianism, and intends by it to put an end to the impiety which we are supposed to have spread. I have read in a French weekly that some are displeased with Mille Plateaux [by Deleuze and Guattari] because they expect, especially when reading a work of philosophy, to be gratified with a little sense. I have read from the pen of a reputable historian that writers and thinkers of the 1960 and 1970 avant-gardes spread a reign of terror in the use of language, and that the conditions for a fruitful exchange must be restored by imposing on the intellectuals a common way of speaking, that of the historians. I have been reading a young philosopher of language who complains that Continental thinking, under the challenge of speaking machines, has surrendered to the machines the concern for reality,
that it has substituted for the referential paradigm that of "adlinguistic" (one speaks about speech, writes about writing, intertextuality), and who thinks that the time has now come to restore a solid anchorage of language in the referent. I have read a talented theatreologist for whom postmodernism, with its games and fantasies, carries very little weight in front of political authority, especially when a worried public opinion encourages authority to a politics of totalitarian surveillance in the face of nuclear warfare threats.

I have read a thinker of repute who defends modernity against those he calls the neoconservatives. Under the banner of postmodernism, the latter would like, he believes, to get rid of the uncompleted project of modernism, that of the Enlightenment. Even the last advocates of Aufklärung, such as Popper or Adorno, were only able, according to him, to defend the project in a few particular spheres of life—that of politics for the author of The Open Society, and that of art for the author of Ästhetische Theorie. Jürgen Habermas (everyone had recognized him) thinks that modernity has failed, it is in allowing the totality of life to be splintered into independent specialties which are left to the narrow competence of experts, while the concrete individual experiences—"desublimated meaning" and "destructured form," not as a liberation but in the mode of that immense ennui which Baudelaire described over a century ago.

Following a prescription of Albrecht Wellmer, Habermas considers that the remedy for this splintering of culture and its separation from life can only come from "changing the status of aesthetic experience when it is no longer primarily expressed in judgments of taste," but when it is "used to explore a living historical situation," that is, when "it is put in relation with problems of existence." For this experience then "becomes a part of a language game which is no longer that of aesthetic criticism"; it takes part "in cognitive processes and normative expectations"; "it alters the manner in which those different moments refer to one another." What Habermas requires from the arts and the experiences they provide is, in short, to bridge the gap between cognitive, ethical, and political discourses, thus opening the way to a unity of experience.

My question is to determine what sort of unity Habermas has in mind: Is the aim of the project of modernity the constitution of sociocultural unity within which all the elements of daily life and of thought would take their places as in an organic whole? Or does the passage that has to be charted between heterogeneous language games—those of cognition, of ethics, of politics—belong to a different order from that? And if so, would it be capable of effecting a real synthesis between them?

The first hypothesis, of a Hegelian inspiration, does not challenge the notion of a dialectically totalizing experience; the second is closer to the spirit of Kant's Critique of Judgment; but must be submitted, like the Critique, to that severe reexamination which postmodernity imposes on the thought of the Enlightenment, on the idea of a unitary end of history and of a subject. It is this critique which not only Wittgenstein and Adorno have initiated, but also a few other thinkers (French or other) who do not have the honor to be read by Professor Habermas—which at least saves them from getting a poor grade for their neoconservatism.

Realism

The demands I began by citing are not all equivalent. They can even be contradictory. Some are made in the name of postmodernism, others in order to combat it. It is not necessarily the same thing to formulate a demand for some referent (and objective reality), for some sense (and credible transcendence), for an addressee (and audience), or an addressee (and subjective expressiveness) or for some communicational consensus (and a general code of exchanges, such as the genre of historical discourse). But in the diverse invitations to suspend artistic experimentation, there is an identical call for order, a desire for unity, for identity, for security, or popularity (in the sense of Öffentlichkeit, of "finding a public"). Artists and writers must be brought back into the bosom of the community, or at least, if the latter is considered to be ill, they must be assigned the task of healing it.

There is an irrefutable sign of this common disposition: it is that for all those writers nothing is more urgent than to liquidate the heritage of the avant-gardes. Such is the case, in particular, of the so-called transavantgardism. The answers given by Achille Bonito Oliva to the questions asked by Bernard Lamarche-Vadel and Michel Enric leave no room for doubt about this. By putting the avant-gardes through a mixing process, the artist and critic feel more confident that they can suppress them than by launching a frontal attack. For they can pass off the most cynical eclecticism as a way of going beyond the fragmentary character of the preceding experiments; whereas if they openly turned their backs on them, they would run the risk of appearing ridiculously neacademic. The Salons and the Académies, at the time when the bourgeoisie was establishing itself
makes it impossible for them to be “true.” Under the common name of painting and literature, an unprecedented split is taking place. Those who refuse to reexamine the role of art pursue successful careers in mass conformity by communicating, by means of the “correct rules,” the endemic desire for reality with objects and situations capable of gratifying it. Pornography is the use of photography and film to such an end. It is becoming a general model for the visual or narrative arts which have not met the challenge of the mass media.

As for the artists and writers who question the rules of plastic and narrative arts and possibly share their suspicions by circulating their work, they are destined to have little credibility in the eyes of those concerned with “reality” and “identity,” they have no guarantee of an audience. Thus it is possible to ascribe the dialectics of the avant-garde to the challenge posed by the realisms of industry and mass communication to painting and the narrative arts. Duchamp’s “ready made” does nothing but actively and parodistically signify this constant process of dispossession of the craft of painting or even of being an artist. As Thierry de Duve penetrates observes, the modern aesthetic question is not “What is beautiful?” but “What can be said to be art (and literature)?”

Realism, whose only definition is that it intends to avoid the question of reality implicated in that of art, always stands somewhere between academicism and kitsch. When power assumes the name of a party, realism and its neoclassical complement triumph over the experimental avant-garde by slandering and banning it—that is, provided the “correct” images, the “correct” narratives, the “correct” forms which the party requests, selects, and propagates can find a public to desire them as the appropriate remedy for the anxiety and depression that public experiences. The demand for reality—that is, for unity, simplicity, communicability, etc.—did not have the same intensity nor the same continuity in German society between the two world wars and in Russian society after the Revolution: this provides a basis for a distinction between Nazi and Stalinist realism.

What is clear, however, is that when it is launched by the political apparatus, the attack on artistic experimentation is specifically reactionary: aesthetic judgment would only be required to decide whether such or such work is in conformity with the established rules of the beautiful. Instead of the work of art having to investigate what makes it an art object and whether it will be able to find an audience, political academicism possesses and imposes a prior criteria of the beautiful, which designate some works and a public at a stroke.
and forever. The use of categories in aesthetic judgment would thus be of the same nature as in cognitive judgment. To speak like Kant, both would be determining judgments: the expression is 'well formed' first in the understanding, then the only cases retained in experience are those which can be subsumed under this expression.

When power is that of capital and not that of a party, the 'transavantgardist' or 'postmodern' (in Jenks's sense) solution proves to be better adapted than the antimodern solution. Eclecticism is the degree zero of contemporary general culture: one listens to reggae, watches a western, eats McDonald's food for lunch and local cuisine for dinner, wears Paris perfume in Tokyo and "retro" clothes in Hong Kong; knowledge is a matter for TV games. It is easy to find a public for eclectic works. By becoming kitsch, art panders to the confusion which reigns in the 'taste' of the patrons. Artists, gallery owners, critics, and public wallow together in the 'anything goes,' and the epoch is one of slackening. But this realism of the 'anything goes' is in fact that of money: in the absence of aesthetic criteria, it remains possible and useful to assess the value of works of art according to the profits they yield. Such realism accommodates all tendencies, just as capital accommodates all 'needs,' providing that the tendencies and needs have purchasing power. As for taste, there is no need to be delicate when one speculates or entertains oneself.

Artistic and literary research is doubly threatened, once by the "cultural policy" and once by the art and book market. What is advised, sometimes through one channel, sometimes through the other, is to offer works which, first, are relative to subjects which exist in the eyes of the public they address, and second, works so made ("well made") that the public will recognize what they are about, will understand what is signified, will be able to give or refuse its approval knowingly, and if possible, even to derive from such work a certain amount of comfort.

The interpretation which has just been given of the contact between the industrial and mechanical arts, and literature and the fine arts is correct in its outline, but it remains narrowly sociologizing and historizing—in other words, one-sided. Stepping over Benjamin's and Adorno's rejections, it must be recalled that science and industry are no more free of the suspicion which concerns reality than are art and writing. To believe otherwise would be to entertain an excessively humanistic notion of the mephistophelian functionalism of sciences and technologies. There is no denying the dominant existence today of techno-science, that is, the massive subordination of cognitive statements to the finality of the best possible performance, which is the technological criterion. But the mechanical and the industrial, especially when they enter fields traditionally reserved for artists, are carrying with them much more than power effects. The objects and the thoughts which originate in scientific knowledge and the capitalist economy convey with them one of the rules which supports their possibility: the rule that there is no reality unless testified by a consensus between partners over a certain knowledge and certain commitments.

This rule is of no little consequence. It is the imprint left on the politics of the scientist and the trustee of capital by a kind of flight of reality out of the metaphysical, religious, and political certainties that the mind believed it held. This withdrawal is absolutely necessary to the emergence of science and capitalism. No industry is possible without a suspicion of the Aristotelian theory of motion, no industry without a refutation of corporatism, of mercantilism, and of physiocracy. Modernity, in whatever age it appears, cannot exist without a shattering of belief and without discovery of the "lack of reality" of reality, together with the invention of other realities.

What does this "lack of reality" signify if one tries to free it from a narrowly historicized interpretation? The phrase is of course akin to what Nietzsche calls nihilism. But I see a much earlier modulation of Nietzschean perspectivism in the Kantian theme of the sublime. I think in particular that it is in the aesthetic of the sublime that modern art (including literature) finds its impetus and the logic of avant-gardes finds its axioms.

The sublime sentiment, which is also the sentiment of the sublime, is, according to Kant, a strong and equivocal emotion: it carries with it both pleasure and pain. Better still, in it pleasure derives from pain. Within the tradition of the subject, which comes from Augustine and Descartes and which Kant does not radically challenge, this contradiction, which some would call neurosis or masochism, develops as a conflict between the faculties of a subject, the faculty to conceive of something and the faculty to "present" something. Knowledge exists if, first, the statement is intelligible, and second, if "cases" can be derived from the experience which "corresponds" to it. Beauty exists if a certain "case" (the work of art), given first by the sensibility without any conceptual determination, the sentiment of pleasure independent of any interest the work may elicit, appeals to the principle of a universal consensus (which may never be attained).

Taste, therefore, testifies that between the capacity to conceive and the capacity to present an object corresponding to the concept,
an undetermined agreement, without rules, giving rise to a judgment which Kant calls reflective, may be experienced as pleasure. The sublime is a different sentiment. It takes place, on the contrary, when the imagination fails to present an object which might, if only in principle, come to match a concept. We have the idea of the world (the totality of what is), but we do not have the capacity to show an example of it. We have the idea of the simple (that which cannot be broken down, decomposed), but we cannot illustrate it with a sensible object which would be a “case” of it. We can conceive the infinitely great, the infinitely powerful, but every presentation of an object destined to “make visible” this absolute greatness or power appears to us painfully inadequate. Those are ideas of which no presentation is possible. Therefore, they impart no knowledge about reality (experience); they also prevent the free union of the faculties which gives rise to the sentiment of the beautiful; and they prevent the formation and the stabilization of taste. They can be said to be unpresentable.

I shall call modern the art which devotes its “little technical expertise” (“son petit technique”), as Diderot used to say, to present the fact that the unpresentable exists. To make visible that there is something which can be conceived and which can neither be seen nor made visible: this is what is at stake in modern painting. But how to make visible that there is something which cannot be seen? Kant, himself shows the way when he names “formlessness, the absence of form,” as a possible index to the unpresentable. He also says of the empty “abstraction” which the imagination experiences when in search for a presentation of the infinite (another unpresentable): this abstraction itself is like a presentation of the infinite, its “negative presentation.” He cites the commandment, “Thou shalt not make graven images” (Exodus), as the most sublime passage in the Bible in that it forbids all presentation of the Absolute. Little needs to be added to those observations to outline an aesthetic of sublime paintings. As painting, it will of course “present” something though negatively; it will therefore avoid figuration or representation. It will be “white” like one of Malevich’s squares; it will enable us to see only by making it impossible to see: it will please only by causing pain. One recognizes in those instructions the axioms of avant-gardes in painting, inasmuch as they devote themselves to making an allusion to the unpresentable by means of visible presentations. The systems in the name of which, or with which, this task has been able to support or to justify itself deserve the greatest attention; but they can originate only in the vocation of the sublime in order to legitimize it, that is, to conceal it. They remain inexplicable without the incommensurability of reality to concept which is implied in the Kantian philosophy of the sublime.

It is not my intention to analyze here in detail the manner in which the various avant-gardes have, so to speak, humbled and disqualified reality by examining the pictorial techniques which are so many devices to make us believe in it. Local tone, drawing, the mixing of colors, linear perspective, the nature of the support and that of the instrument, the treatment, the display, the museum: the avant-gardes are perpetually flushing out artifices of presentation which make it possible to subordinate thought to the gaze and to turn it away from the unpresentable. If Habermas, like Marcuse, understands this task of derealization as an aspect of the (repressive) “desublimation” which characterizes the avant-garde, it is because he confuses the Kantian sublime with Freudian sublimation, and because aesthetics has remained for him that of the beautiful.

The Postmodern

What, then, is the postmodern? What place does it or does it not occupy in the vertiginous work of the questions hurled at the rules of image and narration? It is undoubtedly a part of the modern. All that has been received, if only yesterday (modo, modo, Petronius used to say), must be suspected. What space does Cézanne challenge? The Impressionists? What object do Picasso and Braque attack? Cézanne’s? What presupposition does Duchamp break with in 1912? That which says one must make a painting, be it cubist. And Buren questions that other presupposition which he believed had survived untouched by the work of Duchamp: the place of presentation of the work. In an amazing acceleration, the generations precipitate themselves. A work can become modern only if it is first postmodern. Postmodernism thus understood is not modernism at its end but in the nascent state, and this state is constant.

Yet I would like not to remain with this slightly mechanistic meaning of the word. If it is true that modernity takes place in the withdrawal of the real and according to the sublime relation between the presentable and the conceivable, it is possible, within this relation, to distinguish two modes (to use the musician’s language). The emphasis can be placed on the powerlessness of the faculty of presentation, on the nostalgia for presence felt by the human subject, on the obscure and futile which inhabits him in spite of everything. The emphasis can be placed, rather, on the power of the faculty to conceive, on its “inhumanity” so to speak [it was the quality Apollinaire
demanded of modern artists), since it is not the business of our understanding whether or not human sensibility or imagination can match what it conceives. The emphasis can also be placed on the increase of being and the jubilation which result from the invention of new rules of the game, be it pictorial, artistic, or any other. What I have in mind will become clear if we dispose very schematically a few names on the chessboard of the history of avant-gardes: on the side of melancholia, the German Expressionists, and on the side of **nouveau**, Braqe and Picasso, on the former Malevitch and on the latter Lissitsky, on the one Chirico and on the other Duchamp. The nuance which distinguishes these two modes may be infinitesimal; they often coexist in the same piece, are almost indistinguishable; and yet they testify to a difference (**un différend**) on which the fate of thought depends and will depend for a long time, between regret and essay.

The work of Proust and that of Joyce both allude to something which does not allow itself to be made present. Allusion, to which Paolo Fabbri recently called my attention, is perhaps a form of expression indispensable to the works which belong to an aesthetic of the sublime. In Proust, what is being eluded is the price to pay for this allusion is the identity of consciousness, a victim to the excess of time (**au trop de temps**). But in Joyce, it is the identity of writing which is the victim of an excess of the book (**au trop de livre**) of literature.

Proust calls forth the unrepresentable by means of a language unaltered in its syntax and vocabulary and of a writing which in many of its operators still belongs to the genre of novelistic narration. The literary institution, as Proust inherits it from Balzac and Flaubert, is admittedly subverted in that the hero is no longer a character but the inner consciousness of time, and in that the diegetic diachrony, already damaged by Flaubert, is here put in question because of the narrative voice. Nevertheless, the unity of the book, the odyssey of that consciousness, even if it is deferred from chapter to chapter, is not seriously challenged: the identity of the writing with itself throughout the labyrinth of the inextricable narration is enough to connote such unity, which has been compared to that of The Phenomenology of Mind.

Joyce allows the unrepresentable to become perceptible in his writing itself, in the signifier. The whole range of available narrative and even stylistic operators is put into play without concern for the unity of the whole, and new operators are tried. The grammar and vocabulary of literary language are no longer accepted as given; rather, they appear as academic forms, as rituals originating in piety (as Nietzsche said) which prevent the unrepresentable from being put forward.

Here, then, lies the difference: modern aesthetics is an aesthetic of the sublime, though a nostalgic one. It allows the unrepresentable to be put forward only as the missing contents; but the form, because of its recognizable consistency, continues to offer to the reader or viewer matter for solace and pleasure. Yet these sentiments do not constitute the real sublime sentiment, which is in an intrinsic combination of pleasure and pain: the pleasure that reason should exceed all presentation, the pain that imagination or sensibility should not be equal to the concept.

The [postmodern] would be that which, in the modern, puts forward the unrepresentable in presentation itself, that which denies itself the solace of good forms, the consensus of a taste which would make it possible to share collectively the nostalgia for the unattainable; that which searches for new presentations, not in order to enjoy them but in order to impart a stronger sense of the unrepresentable. A postmodern artist or writer is in the position of a philosopher: the text he writes, the work he produces are not in principle governed by prescribed rules, and they cannot be judged according to a determining judgment, by applying familiar categories to the text or to the work. Those rules and categories are what the work of art itself is looking for. The artist and the writer, then, are working without rules in order to formulate the rules of what will have been done. Hence the fact that work and text have the characters of an event; hence also, they always come too late for their author, or, what amounts to the same thing, their being put into work, their realization (**mise en œuvre**) always begin too soon. Post modern would have to be understood according to the paradox of the future (**post** anterior (**modo**)).

It seems to me that the essay (Montaigne) is postmodern, while the fragment (The Aenaeum) is modern.

Finally, it must be clear that it is our business not to supply reality but to invent allusions to the conceivable which cannot be presented. And it is not to be expected that this task will effect the last reconciliation between language games (which, under the name of faculties, Kant knew to be separated by a chasm), and that only the transcendental illusion (that of Hegel) can hope to totalize them into a real unity. But Kant also knew that the price to pay for such an illusion is terror. The nineteenth and twentieth centuries have given us as much terror as we can take. We have paid a high enough price for the nostalgia of the whole and the one, for the reconciliation of the
concept and the sensible, of the transparent and the communicable experience. Under the general demand for slackening and for appeasement, we can hear the mutterings of the desire for a return of terror, for the realization of the fantasy to seize reality. The answer is: Let us wage a war on totality; let us be witnesses to the unpresentable; let us activate the differences and save the honor of the name.
Notes


6. See the work of Johannes von Neumann (1903-57).


NOTES TO PP. 4-5


18. The composition of the labor force in the United States changed as follows over a twenty-year period (1950-71):

<table>
<thead>
<tr>
<th>Year</th>
<th>Factory, service sector, or agricultural workers</th>
<th>Professionals and technicians</th>
<th>White-collar</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950</td>
<td>62.5%</td>
<td>7.5</td>
<td>30.0</td>
</tr>
<tr>
<td>1971</td>
<td>51.4%</td>
<td>14.2</td>
<td>34.0</td>
</tr>
</tbody>
</table>

19. Because of the time required for the "fabrication" of a high-level technician or the average scientist in comparison to the time needed to extract raw materials and transfer money-capital. At the end of the 1960s, Mattrick estimated the net rate of investment in underdeveloped countries at 3.5% of the GNP and at 10-15% in the developed countries (Mato and Kettner, p. 248.)

20. Nora et Minc, L'Information de la société, especially pt. 1, "Les défis," V. Stoudée, "Les États-Unis et la guerre des communications," Le Monde, 13-15 December 1978. In 1979, the value of the world market of telecommunications devices was $30 billion; it is estimated that in ten years it will reach $68 billion (La Semaine média 19, 8 March 1979).


22. It is a matter of "weakening the administration," of reaching the "minimal state." This is the decline of the Welfare State, which is accompanying the "crisis" that began in 1974.


24. B. P. Lévy, "Bilan et perspectives de la sociologie des sciences dans les pays occidentaux," Archives européennes de sociologie 19 (1978): 257-336 (bibliography). Good information on the growth of American currents; the hegemony of Merton's school until the beginning of the 1970s and the current dispersion, especially under the influence of Kuhn; not much information on German sociology of science.


30. The term performative has taken on a precise meaning in language theory since Austin. Later in this book, the concept will reappear in association with the term performarity (in particular, of a system) in the new current sense of efficiency measured according to an input/output ratio. The two meanings are not far apart. Austin's performative realizes the optimal performance.

31. A recent analysis of these categories is to be found in Habermas, "Unberichtigende Bemerkungen," and is disputed by J. Pouillon, "Vers une pragmatique nucléaire."


33. John Von Neumann and Oskar Morgenstern, Theory of Games and Economic Behavior (Princeton University Press, 1944), p. 49: "The game is simply the totality of the rules which describe it." This formulation is foreign to the spirit of Wittgenstein, for whom the concept of the game cannot be mastered by a definition, since definition is already a language game (Philosophical Investigations, especially secs. 65-84).

34. The term comes from Saussure: "Speech acts . . . are the basic or minimal units of linguistic communication" [Speech Acts, p. 161, I place them within the domain of the agont (the joust) rather than that of communication.


39. Helmut Schelsky, Der Mensch in der Wissenschaftlichen Zivilisation (Köln and Opladen: Arbeitsgemeinschaft für Forschung des Landes Nordrhein-Westfalen, Geisteswissenschaften Heft 96), pp. 24ff: "The sovereignty of the State is no longer manifested by simple fact that it monopolizes the use of violence (Max Weber) or possesses emergency powers (Carl Schmitt) but primarily by the fact that the State determines the degree of effectiveness of all of the technical means existing within it, reserving its greatest limitations for itself, while at the same time exempting its own use of these instruments from the limitations it applies to their use by others." It will be said that this is a theory of the State, not of the system. But Schelsky adds: "In the process, the State's choice of goals is subordinated to the law that I have already mentioned as being the universal law of scientific civilization: namely that the means determine the ends, or rather, that the technical possibilities dictate what use is made of them." Habermas invokes against this law the fact that sets of technical means and systems of finalized rational action never develop autonomously: e.g., "Dogmatism, Reason, and Decision: On Theory and Practice in Our Scientific Civilization" [trans. John Viertel, in Theory and Practice (Boston: Beacon, 1973)]. See also Jacques Ellul, La Technique ou l'Enigme du siecle (Paris: Armand Colin, 1954), and Le Systeme Technicien (Paris: Calmann-Lévy, 1977). That strikes, and in general the strong pressure brought to bear by powerful workers' organizations, produce a tension that is in the long run beneficial to the performance of the system is stated clearly by C. Levinson, a union leader; he attributes the technical and managerial advance of American industry to this tension (quoted by H.-P. de Viricu, Le Matin, special number, "Que veut Giscard?" December 1978).


41. I am using this word in the sense of John Kenneth Galbraith's term restructure as presented in The New Industrial State (Boston: Houghton Mifflin, 1967), or Raymond Aron's term technico-bureaucratic structure in De-seuil lecons sur la societe industrielle (Paris: Gallimard, 1962) [Eng. trans. M. K. Bottomore, Eight Lectures on Industrial Society (London: Weidenfeld and Nicolson, 1967)], not in a sense associated with the term bureaucracy. The term bureaucracy is much "harder" because it is sociopolitical as much as it is economical, and because it descends from the critique of the Bolshevik power by the workers' communes (Kollontai) and the critique of Stalinism by the Trotskyist opposition. See on this subject Claude Lefort, Eléments d'une critique de la bureaucratie (Genève: Droz, 1971), in which the critique is extended to bureaucratic society as a whole.

42. Eclipse of Reason, p. 183.


46. This was the title of the "origin of critique and revolutionary orientation" published between 1949 and 1965 by a group whose principal editors, under various pseudonyms, were C. de Beaumont, D. Biancardi, C. Castoriadis, S. de Diebach, C. Lefort, J.-F. Lyotard, A. Maso, D. Mothe, P. Simon, P. Souyri.


50. An appeal that was intended to secure intellectuals' participation in the system is nonetheless imbued with hesitation between these two hypotheses: P. Nemo, "La Nouvelle Responsabilité des Clercs," Le Monde, 8 September 1978.

51. The origin of the theoretical opposition between Naturwissenschaft and Geisteswissenschaft is to be found in the work of Wilhelm Dilthey (1863-1911).
52. M. Albert, a continuation member of the French Plan, writes: "The Plan is a governmental research department. . . . It is also a great meeting place where ideas ferment, where points of view clash and where change is prepared. . . . We must not be alone. Others must enlighten us. . . ." (L'Expansion, November 1976b). On the problem of decision, see G. Galgen, Theorie der wissenschaftlichen Entscheidung (Tübingen, 1963); and Sfet Critique de la décision (1973; Presses de la Fondation nationale des sciences politiques, 1976).

53. Think of the waning of names such as Saffin, Mao, and Castro as the eponyms of revolution over the last twenty years; consider the erosion of the image of the president in the United States since the Watergate affair.

54. This is a central theme in Robert Musil, Der Mann ohne Eigenschaften (1930-33); Hamburg: Rowolt, 1952 [Eng. trans. Eithne Wilkins and Ernest Kaiser, The Man without Qualities (London: Secker and Warburg, 1953-60)]. In a free commentary, J. Bouvardesce underlines the affinity of this theme of the "dereliction" of the self with the "crisis" of science at the beginning of the twentieth century and with Mach's epistemology; he cites the following evidence: "Given the state of science in particular, a man is made only of what people say he is or of what is done with what he is. . . . The world is one in which lived events have become independent of man. . . . It is a world of happening, of what happens without its happening to anyone, and without anyone's being responsible" ("La problématique du sujet dans L'Homme sans qualities," Noroit (Arcus) 234 and 235 (December 1978 and January 1979); the published text was not revised by the author.


56. This is the vocabulary of systems theory. See, for example, P. Neco, "La Nouvelle Responsabilité?" "Think of society as a system, in the cybernetic sense. This is a communication grid with interactions where messages converge and are redistributed. . . ."

57. An example of this is given by J.-P. Garnier, Le Marxisme lenifiant, "The role of the Center for Information on Social Innovation, directed by H. Dourlet and P. Bloch-Lainé, is to inventory, analyze, and distribute information on new experiences of daily life (education, health, justice, cultural activities, town planning and architecture, etc.). This data bank on 'alternative practices' lends its services to those state organs whose job it is to see it that 'civil society' remains an organized society: the Commissariat au Plan, the Secrétariat à l'action sociale, DATAR, etc."


61. See note 41. The theme of general bureaucratization as the future of modern societies was first developed by B. Riti, La Bureaucratie du monde (Paris: B. Riti, 1939).


64. M. Callon, "Sociologie des techniques?" p. 30: "Sociologie is the movement by

which actions constitute and instantiate differences, or frontiers, between what is social and what is not, what is technical and what is not, what is imaginary and what is real; the outline of these frontiers is open to dispute, and no consensus can be achieved except in cases of total domination." Compare this with what Alain Touraine calls permanent sociolog in Le voeu et le doute.

65. The object of knowledge in Aristotle is strictly circumscribed by what he defines as sapientia: "While every sentence has meaning (sesamantikos) . . . not all can be called propositions (prophusmatos)." We call propositions those that have truth or falsity in them, a prayer is, for instance, a sentence, but neither has truth nor has falsity. ("De Interpretatione," 4. 17a, The Organon, vol. 1, trans. Harold Cooke and Hugh Tredennick (Cambridge, Mass.: Harvard, 1938), 121). (TR: The translation of connaissance as "learning" is not uniform. It was sometimes necessary to translate it as "knowledge" (especially where it occurs in the plural); it should be clear from the context whether it is a question of connaissance (in Lyotard's usage, a body of established denotative statements) or savoir (knowledge in the more general sense). Savoir has been uniformly translated as "knowledge."


68. Again in the sense of Bildung or, in English, "culture," as accredited by culturalism. This term is paraenetic and romanticic; cf. Hegel's Veiligeuzaat.

69. See the American culturalist school: Coral DeBaise, Abram Kardiner, Ralph Linton, Margaret Mead.

70. See studies of the institution of European folklore tradition from the end of the eighteenth century in their relation to romanticism, for example, the brothers Grimm and Vok Karadic (Serbian folktales).

71. This was, briefly stated, Lucien Levy-Bruhl's thesis in La Mentalité primitive (Paris: Alcan, 1922) [Eng. trans. Lillian Clare, Primitive Mentality (New York: Macmillan, 1923)].


78. Ibid., p. 7.
79. I have made use of it here because of the pragmatic "étiquette" surrounding the transmission of the narratives; the anthropologist details it with great care. See Pierre Clastres, *Le grand cycle des mythes et des événements* (Paris: Seuil, 1972).
81. See note 34.
82. The relationship between meter and accent, which constitutes and dissolves rhythm, is at the center of Hegel’s reflection on speculation. See sec. 4 of the preface to the *Phenomenology of Spirit.*
83. I would like to thank André M. d'Ans for kindly providing this information.
86. The example is borrowed from Frege, *"Über Sinn und Bedeutung"* (1892) (Eng. trans. Max Black and Peter Geach, "On Sense and Reference," in *Translations from the Philosophical Writings of Gottlob Frege* (Oxford: Blackwell, 1960)).
91. There is no space here to discuss the difficulties raised by this double presupposition. See Vincent Descombes, *L’inconscient malgré lui* (Paris: Éditions de Minuit, 1977).
92. This remark avoids a major difficulty, one that would also arise in the examination of narration: the distinction between language games and discursive games. I will not discuss it here.
93. In the sense indicated in note 90.
95. Cf. children’s attitude toward their first science lessons, or the way natives interpret the ethnologist’s explanations (see Lévi-Strauss, *L’Homme et la mer* (note 721, chap. 1).
96. That is why Métraux commented to Clastres, "To be able to study a primitive society, it already has to be a little decayed." In effect, the native informant must be able to see his own society through the eyes of the ethnologist; he must be able to question the functioning of its institutions and therefore its legitimacy. Reflecting on his failure with the Ache tribe, Clastres concludes, "And so the Ache accepted presents they had not asked for while at the same time refusing attempts at a dialogue, because they were strong enough not to need it: we would start talking when they were sick" (quoted by M. Castri in "Pierre Clastres," *Libre 4* (1978)).
97. On scientific ideology, see Survivre 9 (1971), reprinted in Jaubert and Lévy-Leboyer, (Autocritique (note 26), pp. 51ff. At the end of their collection there is a bibliography listing periodicals and groups fighting against the various forms of subordination of science to the system.
99. These terms are borrowed from Genette, *Figures III.*
105. A trace of this politics is to be found in the French institution of a philosophy class at the end of secondary studies, and in the proposal by the Groupe de recherches sur l’enseignement de la philosophie (GREPH) to teach "some" philosophy starting at the beginning of secondary studies: see their *Qui a peur de la philosophie?* (Paris: Flammarion, 1997), sec. 2, "La Philosophie déclassée." This also seems to be the orientation of the curriculum of the CEGEPS in Quebec, especially of the philosophy courses (see for example the *Cahiers de l’enseignement collégial* (1975-76) for philosophy).
107. A "hard," almost mystico-military expression of this can be found in Julio de Mesquita Filho, *Discursos de Passagem da primeira turma de licenciados pela Faculdade de Filosofia, Ciências e Letras da Universidade de São Paulo* (25 January 1937), and an expression of it adapted to the modern problems of Brazilian development in the *Relatório do Grupo de Relatório, Reforma Universitária* (Brasília: Ministries of Education and Culture, etc., 1968). These documents are part of a dossier on the university in Brazil, kindly sent to me by Helena C. Chamblin and Martha Ramos de Carvalho of the University of São Paulo.
110. Ibid., p. 128.
112. "The teaching of philosophy is generally recognized to be the basis of all university activity" (ibid., p. 128).
114. It is present even in the conclusions of Robert Noam, *The Degradation of the
Academic Dogma: The University in America, 1945-70 (London: Heinemann, 1971). The author is a professor at the University of California, Riverside.


118. Take two statements: 1) "The moon has risen", 2) "The statement /The moon has risen/ is a denotive statement". The syntax /The moon has risen/ in statement 2 is said to be the antonym of statement 1. See Josette Rey-Dobove, Le Métalangage (Paris: Le Robert, 1978), pt. 4.

119. Its principle is Kantian, at least in matters of transcendental ethics—see the Critique of Practical Reason. When it comes to politics and empirical ethics, Kant is prudent: since no one can identify himself with the transcendental normative subject, it is theoretically more exact to compromise with the existing authorities. See for example, "Antwort an der Frage: 'Was ist 'Aufklärung'?" " (1784) [Eng. trans. Lewis White Beck, in Critique of Practical Reason and Other Writings in Moral Philosophy (Chicago: Chicago University Press, 1949)].

120. See Kant, "Antwort"; Jürgen Habermas, Strukturwandel der Öffentlichkeit (Frankfort: Luchterhand, 1962). The principle of Öffentlichkeit ("public" or "publicity" in the sense of "making public a private correspondence" or "public debate") guided the action of many groups of scientists at the end of the 1960s, especially the group "Survivors" (France), the group "Scientists and Engineers for Social and Political Action" (USA), and the group "British Society for Social Responsibility in Science." A French translation of this text by G. Granet can be found in Pbi, supplement to the Annales de l'université de Toulouse—Le Mirail (Toulouse: January 1977).


123. "Road of doubt . . . road of despair . . . skepticism," writes Hegel in the preface to the Phenomenology of Spirit to describe the effect of the speculative drive on natural knowledge.

124. For fear of undermining this account, I have postponed until a later study the exposition of this group of rules. [See "Analyzing Speculative Discourse as Language-Game," The Oxford Literary Review 4, no. 3 (1981): 59-67.]

125. Nietzsche, "Der europäische Nihilismus" (MS, N VII 3); "der Nihilismus, ein normaler Zustand" (MS, W II 1); "Kritik der Nihilismus" (MS, W VII 3); "Zum Plan" (MS, W I 11), in Nietzsche's Werke kritische Gesamtausgabe, vol. 7, pts. 1 and 2 (1887-89) (Berlin: De Gruyter, 1970). These texts have been the object of a commentary by R. Rysk, Nietzsche, le manuscrit de Lorenz Heide (typescript, Département de philosophie, Université de Paris VIII [Vincennes]).


129. Ibid.

130. Ibid.

131. See, for example, "La taylorisation de la recherche," in Auto/critique de la science (note 36), pp. 291-93. And especially D. J. de Solla Price, Little Science, Big Science (New York: Columbia University Press, 1963), who emphasizes the split between a small number of highly productive researchers (evaluated in terms of publication) and a large mass of researchers with low productivity. The number of the former grows as the square of the former, so that the number of high productivity researchers only really increases every twenty years. Price concludes that science considered as a social entity is "undemocratic" (p. 59) and that "the eminent scientists" is a hundred years ahead of "the minimal one" (p. 56).


133. The reclassification of academic philosophy as one of the human sciences in this respect has a significant far beyond simply professional concerns. I do not think that philosophy as legitimacy is condemned to disappear, but it is possible that it will not be able to carry out this work, or at least advance it, without revising its ties to the university institution. See on this matter the preamble to the Projet d'un institut polytechnique de philosophie (typescript, Département de philosophie, Université de Paris VIII [Vincennes], 1979).


136. "Science Smiling into its Beard" is the title of chap. 72, vol. 1 of Musil's The Man Without Qualities. Cited and discussed by J. Bouwesia, "La Problématique du sujet" (note 54).

137. Aristotel in the Analytics (ca. 330 B.C.), Des cartes in the Regulae ad directionem ingenii (1641) and the Principes de la philosophie (1644), John Stuart Mill in the System of Logic (1843).


140. See Blaché, L'Axiomatique, chap. 5.


146. Thomas Kuhn, *Structure of Scientific Revolutions* (note 94).


149. The question is that of the witness and also of the historical source: is the fact known from hearsay or de vista? The distinction is made by Herodotus. See F. Hartog, "Hérodote rapporte et apporte," *Hérodote* 7 (1977): 55-65.


158. This was one of the Lazarsfeld's conditions for agreeing to found what was to become the Mass Communication Research Center at Princeton in 1937. This produced some tension: the radio industries refused to invest in the project; people said that Lazarsfeld started things going but finished nothing. Lazarsfeld himself said to Morrison, "I usually put things together and hope they worked," quoted by D. Morrison, "The Beginning of Modern Communication Research," *Archives européennes de sociologie* 19, no. 2 (1978): 347-59.

159. In the United States, the funds allocated to research and development by the federal government were, in 1956, equal to the funds coming from private capital; they have been higher since that time (OCDE, 1956).

160. Robert Nisbet, *Degradation* (note 114), chap. 5, provides a bister description of the penetration of "higher capitalism" into the university in the form of research centers independent of departments. The social relations in such centers disturb the academic tradition. See too in *La critique de la science* (note 26), the chapters "Le problémat scientifique," "Les chercheurs," "La Crise des mandarins."


162. Commenting on Luhmann, Mueller writes, "In advanced industrial society, legal-rational legitimation is replaced by a technocratic legitimation that does not accord any significance to the beliefs of the citizen or to morality per se" (Politics of Communication [note 122], p. 135). There is a bibliography of German material on the technocratic question in Habermas, *Theory and Practice* (note 39).


164. Thus in 1970 the British University Grants Committee was "persuaded to take a much more positive role in productivity, specialization, concentration of effort, and control of building through cost limits" (The Politics of Education: Edward Boyle and Anthony Crossland in Conversation with Maurice Kogan (Harmondsworth, Eng.: Penguin, 1971), p. 196). This may appear to contradict declarations such as that of Brooks, quoted above (note 156). But 1) the "strategy" may be liberal and the "tactics" authoritarian, as Edwards says elsewhere; 2) responsibility within the hierarchy of public authorities is often the responsibility of an answer to society, namely the capability of society (in the context of a project); 3) public authorities are not always free from pressures from private groups whose performance criterion is immediately binding. If the chances of innovation in research cannot be calculated, then public interest seems to lie in aiding all research, under conditions other than that of efficiency assessment after a fixed period.

165. During the seminars run by Lazarsfeld at the Princeton Radio Research Center in 1939-40, Laswell defined the process of communication in the formula, "Who says what to whom with what effect?" see Morrison, "Beginning."

166. This is what Parsons defines as "instrumental activism" and glorifies to the point of confusing it with "cognitive rationality": "The orientation of cognitive rationality is implicit in the common culture of instrumental activism but it only becomes more or less explicit and is more highly appreciated among the educated classes and the intellectuals by whom it is more evidently applied in their occupational pursuits" (Talcott Parsons and Gerald M. Platt, *Considerations on the American Academic Systems*, *Minerva* 6 (Summer 1968): 507 cited by Alain Touraine, *Université et société* (note 113), p. 146).

167. At the beginning of the academic year 1970-71, 30%-40% of 19-year-olds were registered in higher education in Canada, the United States, the USSR, and Yugoslavia, and about 20% in Germany, France, Great Britain, Japan, and the Netherlands. In all of these countries, the number had doubled or tripled since 1959. According to the same source, *in the same source, to the technical intelligentsia, following John Kenneth Galbraith, he describes the alarm and resistance of the professional intelligentsia to the face of technocratic legitimation (Politics of Communication [note 122], pp. 172-77).
168. In France, the total higher education budget (not counting the CNRS) increased from 3,075 million francs in 1968 to 5,434 million in 1975, representing a decrease from about 0.5% to 0.39% of the GDP. Increases in absolute figures came in the areas of salaries, operating expenses, and scholarships; the amount for research subsidies remained more or less the same (Devèze, Histoire, pp. 447-50). E. E. David states that the demand for Ph.D.s in the 1970s was scarcely higher than in the 1960s (p. 212; see note 156).

169. In Muller's terminology, Politcs of Communication (note 123).

170. This is what J. Dofney and M. Rioux discuss under the rubric "cultural training." See "Inventaire et bilan de quelques expériences d'intervention de l'université," in L'Université dans son milieu: action et responsabilité (AUPELF conférence, Université de Montréal, 1971), pp. 155-62. The authors criticize what they call the two types of Northern American universities: the liberal arts colleges, in which teaching and research are entirely divorced from social demand, and the "multiversity," which is willing to dispense with teaching the community is prepared to pay for. On this last system, see Clark Kerr, The Uses of the University: With a Postscript - 1972 (Cambridge, Mass., Harvard University Press, 1972). Moving in a different direction, but without the interventionism of the university in society recommended by Dofny and Rioux, see the description of the university of the future given by M. Alliot during the same conference: "Structures optimales de l'institution universitaire," ibid., pp. 141-54. M. Alliot concludes: "We believe in structures, when there really ought to be as few structures as possible." This was the goal of the Centre expérimental, subsequently Université de Paris VIII (Vincennes), as declared at its founding in 1968. See for this, the dossier Vincennes ou le désir d'apprendre (Paris: Alain-Moreau, 1979).

171. It is the author's personal experience that this was the case with a large number of departments at Vincennes.

172. The higher education reform law of November 12, 1968, numbers continuing education (conceived in a professionalistic sense) among the duties of higher education, which "should be open to former students and to those who have not been able to study, in order to allow them to increase their chances of promotion or change occupations, according to their abilities."

173. In an interview with Télé-Jeudis 981 (17 March 1979), the French minister of Education, who had officially recommended the series Holocaust broadcast on Channel 2 in public school student (an unprecedented step), declared that the education sector's attempt to create for itself an autonomous audiovisual tool has failed and that "the first task of education is to teach children how to choose their programs" on television.

174. In Great Britain, where the State's contribution to the capital outlays and operating expenses of the universities increased from 30% to 80% between 1920 and 1960, it is the University Grants Committee, attached to the Ministry of State for Science and Universities, which distributes the annual subsidy after studying the needs and development plans presented by the universities. In the United States the trustees are all-powerful, for in France, that means distributing among the departments the funds earmarked for operating expenses and equipment. Instructors only have power over salaries in the case of temporary personnel. Financing for projects and administrative reorganization, etc., is taken from the overall education budget allocated to the university.


177. It is well known that the use of intelligent terminals is taught to school children in Japan. In Canada they are used regularly by isolated university and college departments.

178. This policy has been pursued by American research centers since before the Second World War.

179. Nora and Mine (L'Information de la société [note 91], p. 16) write: "The major challenge for the advanced poles of humanity in the coming decades is no longer that of mastering matter — such mastery is already assured. The challenge is rather that of constructing a network of links allowing information and organization to move forward together."


184. Among the best known are: the Mass Communication Research Center (Princeton); the Mental Research Institute (Palo Alto); the Massachusetts Institute of Technology (Boston); Institut für Sozialforschung (Frankfurt). Part of Clark Kerr's argument in favor of what he calls the Ideopolis is based on the principle that collective research increases inventiveness (Uses of the University, pp. 21ff.).

185. Solla Price, Little Science, Big Science (note 131), attempts to found a science of science. He establishes the (statistical) laws of science as a social object. I have already referred to the law of democratic division in note 131. Another law, that of "invisible colleges," describes the effect of the increasing number of publications and the saturation of information channels in scientific institutions: the "aristocrats" of knowledge are tending to react to this by setting up stable networks of interpersonal contact involving at most about a hundred selected members. Diana Cran has provided a sociometric analysis of these colleges in Invisible Colleges (Chicago and London: University of Chicago Press, 1972). See Lévy, "Bibliothèque." (note 24).

186. In Fracats: Form, Chance and Dimension (San Francisco: W. H. Freeman, 1977), Benoit Mandelbrot provides an appendix of "Biographical and Historical Sketches" (pp. 249-73) of researchers in mathematics and physics who were recognized late or not at all, despite the fecundity of their research, because their interests were unusual.

187. A famous example of this is the debate on determinism occasioned by quantum mechanics. See for example J. M. Lévy-Leblond's presentation of the Born-Einstein correspondence (1916-55), "Le grand débat de la mécanique quantique," La Recherche 20 (1972): 137-44. The history of the human sciences in the last century is full of such shifts from anthropological discourse to the level of metalanguage.

188. Ihab Hassan gives an "image" of what he terms immanence in "Culture, Indeterminacy, and Immanence" (note 121).

189. See note 142.


192. Information itself costs energy, and the negentropy it contraceives gives rise to entropy. Michel Serres often refers to this argument, for example, in Hermès III: La Traduction (Paris: Éditions de Minuit, 1974), p. 92.


196. In a paper presented to the Académie des sciences (December 1921), Borel suggested that "in games in which the best way to play does not exist" (games without perfect information), "one might wonder whether, in the absence of a code chosen once and for all, it might be possible to play advantageously by varying one's game."

197. The idea is based on the work of Von Neumann, who showed that the probability of winning in a game is determined by the two players' strategies, and not by the sequence of moves. This is a fundamental concept in modern game theory.

198. "Probability reappears here, no longer as the constitutive principle of the structure of an object, but as the regulating principle of a structure of behavior." (Gilles-Gascon Granger, "Pensee formelle et sciences de l'homme" [Paris: Aubier-Montaigne, 1960], p. 142.)


200. A continuous nonorientable, self-similar curve, described by Mandelbrot, pp. 38ff., and established by H. von Koch in 1904; see the bibliography to *Practicals*.


205. Ibid., p. 25.

206. See especially Watzlawick et al., *Pragmatics of Human Communication* (note 11), chap. 6.

207. "The conditions of production of scientific knowledge must be distinguished from the knowledge produced. ... There are two constitutive stages of scientific activity: making the known unknown, and then reorganizing this unknown into an independent symbolic metasystem. ... The specificity of science is in its unpredictability" (P. Breton, in *Pandore* 3 [1979]: 10).


210. This is explained by Paul Feyrerfeld, *Against Method* (London: New Left Books, 1975), using the example of Galileo. Feyrerfeld champions epistemological "anarchism" or "dadaism" in opposition to Popper and Lakatos.

211. It has not been possible within the limits of this study to analyze the form assumed by the return of narrative in discourses of legitimation. Examples are the study of open systems, local determinism, antimethod—general, everything that I group under the name "paralogy."

212. Nora and Minz, for example, attribute Japan's success in the field of computers to an "intensity of social consensus" that they judge to be specific to Japanese society. ("Informatization de la Société* [note 91], p. 4). They write in their conclusion: "The dynamics of extended social computerization leads to a fragile society: such a society is constructed with a view to facilitating consensus, but already presupposes its existence, and comes to a standstill if that consensus cannot be realized" (p. 125). Y. Sourdoul, "Les États-Unis*" (note 20), emphasizes the fact that the current tendency to deregulate, destabilize, and weaken administration is encouraged by society's loss of confidence in the State's performance capability.

213. In Kuhn's sense.

214. Pomin ("Catastrophes") shows that this type of functioning bears no relation to Hegelian dialectics.

215. "What the legitimation of decisions accordingly entails is fundamentally an effective learning process, with a minimum of friction, within the social system. This is an aspect of the more general question, "how do aspirations change, how can the political-administrative subsystem, itself only part of society, nevertheless structure expectations in society through its decisions?" The effectiveness of the activity of what is only a part, for the whole, will in large measure depend on how well it succeeds in integrating new expectations into already existing systems—whether these are persons or social systems—without thereby provoking considerable functional disturbances* (Niklas Luhmann, *Legitimation durch Verfahren* [note 160], p. 35).


217. Jeanette Rey-Bodev (Le Métalurgie [note 117], pp. 228ff.) notes the proliferation of marks of indirect discourse or autonomous notation in contemporary language. As she reminds us, "indirect discourse cannot be trusted."

218. As Georges Canguilhem says, "man is only truly healthy when he is capable of a number of norms, when he is more than normal" ("Le Normal et la pathologique" [1951], in *La Connaissance de la vie* [Paris: Hachette, 1952], p. 210) (Eng. trans. Carolyn Fawcett, *On the Normal and the Pathological* [Boston: D. Reidel, 1978]).

219. E. E. Davis (note 156) comments that society can only be aware of the needs it feels in the present state of its technological milieu, if it is of the nature of the basic sciences to discover unknown properties which enable the technical milieu and create unpredictable needs. He cites as examples the use of solid materials as amplifiers and the rapid development of the physics of solids. This "negative regulation" of social interactions and needs by the object of contemporary techniques is envisaged by R. Jaulin, "Le Mythe technologique," *Revue de l'entreprise* 26, special "Ethnotechnology" issue (March 1979): 49-55. This is a review of A. G. Haudricourt, "La Technologie culturelle, essai de méthodologie," *Cahiers d'histoire des techniques* (note 154).

220. Medawar (Art of the Soluble, pp. 151-52) compares scientists' written and spoken styles. The former must be "inductive" or they will not be considered: as for the second, Medawar makes a list of expressions often heard in laboratories, including, "My results don't make a story yet." He concludes, "Scientists are building explanatory structures, telling stories. . . ."

221. For a famous example, see Lewis S. Feuer, *Einstein and the Generations of Science* (New York: Basic Books, 1974). As Nouy emphasizes in his introduction to the French translation *Etans, Alexandre, l'infini et le conflit des générations* (Bruxelles: Complexe, 1979), "Relativity was born in a makeshift 'academy' formed by friends, not one of whom was a physicist; all were engineers or amateur philosophers."

222. Orwell's paradox. The bureaucrat speaks: 'We are not content with negative obedience, nor even with the most abject submission. When finally you do surrender to us, it

223. See Nora and Minc's description of the tension that mass computerization will inevitably produce in French society (L'Informatisation de la société [note 91, introduction]).


225. After the separation of Church and State, Paul Feyerabend (Against Method), demands in the same "lay" spirit the separation of Science and State. But what about Science and Money?

226. This is at least one way of understanding this term, which comes from Derrida's problematic, Dire (note 28).

227. Legitimationshprobleme (note 27), passim, especially pp. 21-22: "Language functions in the manner of a transformer . . . changing cognitions into propositions, needs and feelings into normative expectations (commands, values). This transformation produces the far-reaching distinction between the subjectivity of intention, willing, of pleasure and unpleasure on the one hand, and expressions and norms with a pretension to universality on the other. Universality signifies the objectivity of knowledge and the legitimacy of prevailing norms; both assure the community [Gemeinsamkeit] constitutive of lived social experience." We see that by formulating the problematic in this way, the question of legitimacy is fixated on one type of reply, universality. This on the one hand presupposes that the legitimation of the subject of knowledge is identical to that of the subject of action (opposition to Kant's critique, which dissociates conceptual universality, appropriate to the former, and ideal universality, or "superensible nature," which forms the horizon of the latter, and on the other hand it maintains that consensus (Gemeinschaft) is the only possible horizon for the life of humanity.

228. Ibid., p. 20. The subordination of the metaprescriptives of prescription (i.e., the normalization of laws) to Diskurs is explicit, for example, on p. 144: "The normative pretension to validity is itself cognitive in the sense that it always assumes it could be accepted in a rational discussion."


230. See J. Poullin, "Vers une pragmatique nucléaire" (note 281), and for a more general discussion of the pragmatics of Searle and Gehlen, see J. Poullin, "Pragmatique de la parole et pragmatique de la vie," Ph. é. 1, no. 1 (Université de Montréal, September 1978), 5-50.

231. See Treic et al., Informatique et libertés, government report (La Documentation française, 1975); L. Jospin, "Les 'pilges liberaticides' de l'informatique," Le Monde diplomatique 300 (March 1979); these usage (pilges) are "the application of the technique of 'social profiles' to the management of the mass of the population; the logic of security produced by the automatization of society." See too the documentation and analysis in Interferences 1 and 2 (Winter 1974-Spring 1975), the theme of which is the establishment of popular networks of multimedia communication. Topics treated include: amateur radios (especially their role in Quebec during the FLQ affair of October 1970 and that of the