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A Series in Social Thought and Cultural Criticism

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What Is Philosophy?

Translated by Hugh Tomlinson and Graham Burchell

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Conclusion: From Chaos to the Brai

We require just a little order to protect us from chaos. Nothing is more distressing than a thought that escapes itself, than ideas that fly off, that disappear hardly formed, already eroded by forgetfulness or precipitated into others that we no longer master. These are infinite *variabilities,* the appearing and disappearing of which coincide. They are infinite speeds that blend into the immobility of the colorless and silent nothingness they traverse, without nature or thought. This is the instant of which we do not know whether it is too long or too short for time. We receive sudden jolts that beat like arteries. We constantly lose our ideas. That is why we want to hang on to fixed opinions so much. We ask only that our ideas are linked together according to a minimum of constant rules. All that the association of ideas has ever meant is providing us with these protective rules—resemblance, contiguity, causality—which enable us to put some order into ideas, preventing our "fantasy" (delirium, madness) from crossing the universe in an instant, producing winged horses and dragons breathing

fire. But there would not be a little order in ideas if there was not also a little order in things or states of affairs, like an objective antichaos: "If cinnabar were sometimes red, sometimes black, sometimes light, sometimes heavy . . . , my empirical imagination would never find opportunity when representing red color to bring to mind heavy cinnabar."[1] And finally, at the meeting point of things and thought, the sensation must recur—that of heaviness whenever we hold cinnabar in our hands, that of red whenever we look at it—as proof or evidence of their agreement with our bodily organs that do not perceive the present without imposing on it a conformity with the past. This is all that we ask for in order to *make an opinion* for ourselves, like a sort of "umbrella," which protects us from chaos.

Our opinions are made up from all this. But art, science, and philosophy require more: they cast planes over the chaos. These three disciplines are not like religions that invoke dynasties of gods, or the epiphany of a single god, in order to paint a firmament on the umbrella, like the figures of an *Urdoxa* from which opinions stem. Philosophy, science, and art want us to tear open the firmament and plunge into the chaos. We defeat it only at this price. And thrice victorious I have crossed the Acheron. The philosopher, the scientist, and the artist seem to return from the land of the dead. What the philosopher brings back from the chaos are *variations* that are still infinite but that have become inseparable on the absolute surfaces or in the absolute volumes that lay out a secant [*sécant*] plane of immanence: these are not associations of distinct ideas, but reconnections through a zone of indistinction in a concept. The scientist brings back from the chaos *variables* that have become independent by slowing down, that is to say, by the elimination of whatever other variabilities are liable to interfere, so that the variables that are retained enter into determinable relations in a function: they are no longer links of properties in things, but finite coordinates on a secant plane of reference that go from local probabilities to a global cosmology. The artist brings back from the chaos *varieties* that no longer

constitute a reproduction of the sensory in the organ but set up a being of the sensory, a being of sensation, on an anorganic plane of composition that is able to restore the infinite. The struggle with chaos that Cézanne and Klee have shown in action in painting, at the heart of painting, is found in another way in science and in philosophy: it is always a matter of defeating chaos by a secant plane that crosses it. Painters go through a catastrophe, or through a conflagration, and leave the trace of this passage on the canvas, as of the leap that leads them from chaos to composition.[2] Mathematical equations do not enjoy a tranquil certainty, which would be like the sanction of a dominant scientific opinion, but arise from an abyss that makes the mathematician "readily skip over calculations," in anticipation of not being able to bring about or arrive at the truth without "colliding here and there."[3] And philosophical thought does not bring its concepts together in friendship without again being traversed by a fissure that leads them back to hatred or disperses them in the coexisting chaos where it is necessary to take them up again, to seek them out, to make a leap. It is as if one were casting a net, but the fisherman always risks being swept away and finding himself in the open sea when he thought he had reached port. The three disciplines advance by crises or shocks in different ways, and in each case it is their succession that makes it possible to speak of "progress." It is as if the *struggle against chaos* does not take place without an affinity with the enemy, because another struggle develops and takes on more importance—the struggle *against opinion,* which claims to protect us from chaos itself.

In a violently poetic text, Lawrence describes what produces poetry: people are constantly putting up an umbrella that shelters them and on the underside of which they draw a firmament and write their conventions and opinions. But poets, artists, make a slit in the umbrella, they tear open the firmament itself, to let in a bit of free and windy chaos and to frame in a sudden light a vision that appears through the rent—Wordsworth's spring or Cézanne's apple, the sil-

houettes of Macbeth or Ahab. Then come the crowd of imitators who repair the umbrella with something vaguely resembling the vision, and the crowd of commentators who patch over the rent with opinions: communication. Other artists are always needed to make other slits, to carry out necessary and perhaps ever-greater destructions, thereby restoring to their predecessors the incommunicable novelty that we could no longer see. This is to say that artists struggle less against chaos (that, in a certain manner, all their wishes summon forth) than against the "clichés" of opinion.[4] The painter does not paint on an empty canvas, and neither does the writer write on a blank page; but the page or canvas is already so covered with preexisting, preestablished clichés that it is first necessary to erase, to clean, to flatten, even to shred, so as to let in a breath of air from the chaos that brings us the vision. When Fontana slashes the colored canvas with a razor, he does not tear the color in doing this. On the contrary, he makes us see the area of plain, uniform color, of pure color, through the slit. Art indeed struggles with chaos, but it does so in order to bring forth a vision that illuminates it for an instant, a Sensation. Even houses: Soutine's drunken houses come from chaos, knocking up against one another and preventing one another from falling back into it; Monet's house also rises up like a slit through which chaos becomes the vision of roses. Even the most delicate pink opens on to chaos, like flesh on the flayed body.[5] A work of chaos is certainly no better than a work of opinion; art is no more made of chaos than it is of opinion. But if art battles against chaos it is to borrow weapons from it that it turns against opinion, the better to defeat it with tried and tested arms. Because the picture starts out covered with clichés, the painter must confront the chaos and hasten the destructions so as to produce a sensation that defies every opinion and cliché (how many times?). Art is not chaos but a composition of chaos that yields the vision or sensation, so that it constitutes, as Joyce says, a chaosmos, a composed chaos—neither foreseen nor preconceived. Art transforms chaotic variability into *chaoid* variety,

as in El Greco's black and green-gray conflagration, for example, or Turner's golden conflagration, or de Staël's red conflagration. Art struggles with chaos but it does so in order to render it sensory, even through the most charming character, the most enchanted landscape (Watteau).

Science is perhaps inspired by a similar sinuous, reptilian movement. A struggle against chaos seems to be an essential part of science when it puts slow variability under constants or limits, when it thereby refers it to centers of equilibrium, when it subjects it to a selection that retains only a small number of independent variables within coordinate axes, and when between these variables it installs relationships whose future state can be determined on the basis of the present (determinist calculus) or, alternatively, when it introduces so many variables at once that the state of affairs is only statistical (calculus of probabilities). In this sense we speak of a specifically scientific opinion won from chaos, as we do of a communication defined sometimes by initial pieces of information, sometimes by large-scale pieces of information, which usually go from the elementary to the composite, or from the present to the future, or from the molecular to the molar. But, here again, science cannot avoid experiencing a profound attraction for the chaos with which it battles. If slowing down is the thin border that separates us from the oceanic chaos, science draws as close as it can to the nearest waves by positing relationships that are preserved with the appearance and disappearance of variables (differential calculus). The difference between the chaotic state where the appearance and disappearance of a variability blend together, and the semichaotic state that manifests a relationship as the limit of the variables that appear or disappear becomes ever smaller. As Michel Serres says of Leibniz, "There would be two infraconsciousnesses: the deeper would be structured like any set whatever, a pure multiplicity or possibility in general, an aleatory mixture of signs; the less deep would be covered by combinatory schemas of this multiplicity."[6] One could conceive of a series of

coordinates or phase spaces as a succession of filters, the earlier of which would be in each case a relatively chaotic state, and the later a chaoid state, so that we would cross chaotic thresholds rather than go from the elementary to the composite. Opinion offers us a science that dreams of unity, of unifying its laws, and that still searches today for a community of the four forces. Nevertheless, the dream of capturing a bit of chaos is more insistent, even if the most diverse forces stir restlessly within it. Science would relinquish all the rational unity to which it aspires for a little piece of chaos that it could explore.

Art takes a bit of chaos in a frame in order to form a composed chaos that becomes sensory, or from which it extracts a chaoid sensation as variety; but science takes a bit of chaos in a system of coordinates and forms a referenced chaos that becomes Nature, and from which it extracts an aleatory function and chaoid variables. In this way one of the most important aspects of modern mathematical physics appears in the action of "strange" or chaotic attractors: two neighboring trajectories in a determinate system of coordinates do not remain so and diverge in an exponential manner before coming together through operations of stretching and folding that are repeated and intersect with chaos.[7] If equilibrium attractors (fixed points, limit cycles, cores) express science's struggle with chaos, strange attractors reveal its profound attraction to chaos, as well as the constitution of a chaosmos internal to modern science (everything that, in one way or another, was misrepresented in earlier periods, notably in the fascination for turbulences). We thus come back to a conclusion to which art led us: the struggle with chaos is only the instrument of a more profound struggle against opinion, for the misfortune of people comes from opinion. Science turns against opinion, which lends to it a religious taste for unity or unification. But it also turns within itself against properly scientific opinion as *Urdoxa,* which consists sometimes in determinist prediction (Laplace's God) and sometimes in probabilistic evaluation (Maxwell's demon): by releasing itself from initial pieces of information and large-scale pieces of information,

science substitutes for communication the conditions of creativity defined by singular effects and minimal fluctuations. Creation is the aesthetic varieties or scientific variables that emerge on a plane that is able to crosscut chaotic variability. As for pseudosciences that claim to study the phenomena of opinion, the artificial intelligences of which they make use maintain as their models probabilistic processes, stable attractors, an entire logic of the recognition of forms; but they must achieve chaoid states and chaotic attractors to be able to understand both thought's struggle against opinion and its degeneration into opinion (one line in the development of computers is toward the assumption of a chaotic or chaoticizing system).

This is what confirms the third case, which is no longer sensory variety or functional variable but conceptual variation as it appears in philosophy. Philosophy struggles in turn with the chaos as undifferentiated abyss or ocean of dissemblance. But this does not mean that philosophy ranges itself on the side of opinion, nor that opinion can take its place. A concept is not a set of associated ideas like an opinion. Neither is it an order of reasons, a series of ordered reasons that could rigorously constitute a kind of rationalized *Urdoxa.* To reach the concept it is not even enough for phenomena to be subject to principles analogous to those that associate ideas or things, or to principles that order reasons. As Michaux says, what suffices for "current ideas" does not suffice for "vital ideas"—those that must be created. Ideas can only be associated as images and can only be ordered as abstractions; to arrive at the concept we must go beyond both of these and arrive *as quickly as possible* at mental objects determinable as real beings. This is what Spinoza or Fichte have already shown: we must make use of fictions and abstractions, but only so far as is necessary to get to a plane where we go from real being to real being and advance through the construction of concepts.[8] We have seen how this result can be achieved to the extent that variations become inseparable according to zones of neighborhood or indiscernibility: they then cease being associable according

to the caprice of imagination, or discernible and capable of being ordered according to the exigencies of reason, in order to form genuine conceptual blocs. A concept is a set of inseparable variations that is produced or constructed on a plane of immanence insofar as the latter crosscuts the chaotic variability and gives it consistency (reality). A concept is therefore a chaoid state par excellence; it refers back to a chaos rendered consistent, become Thought, mental chaosmos. And what would *thinking* be if it did not constantly confront chaos? Reason shows us its true face only when it "thunders in its crater." Even the cogito is only an opinion, an *Urdoxa* at best, if we do not extract from it the inseparable variations that make it a concept, if we do not give up finding an umbrella or shelter in it, unless we stop presupposing an immanence that would be accommodated *to itself,* so that, on the contrary, it can set itself up on a plane of immanence to which it belongs that which takes it back to the open sea. In short, chaos has three daughters, depending on the plane that cuts through it: these are the *Chaoids*—art, science, and philosophy—as forms of thought or creation. We call *Chaoids* the realities produced on the planes that cut through the chaos in different ways.

The brain is the junction—not the unity—*of the three planes.* Certainly, when the brain is considered as a determinate function it appears as a complex set both of horizontal connections and of vertical integrations reacting on one another, as is shown by cerebral "maps." The question, then, is a double one: are the connections preestablished, as if guided by rails, or are they produced and broken up in fields of forces? And are the processes of integration localized hierarchical centers, or are they rather forms (*Gestalten*) that achieve their conditions of stability in a field on which the position of center itself depends? In this respect the importance of Gestalt theory concerns the theory of the brain just as much as the conception of perception, since it is directly opposed to the status of the cortex as it appears from the point of view of conditioned reflexes. But, whatever point of view is considered, it is not difficult to show that similar difficulties

are encountered whether paths are ready-made or self-producing, and whether centers are mechanical or dynamical. Ready-made paths that are followed step by step imply a preestablished track, but trajectories constituted within a field of forces proceed through resolution of tensions also acting step by step (for example, the tension of reconciliation between the fovea and the luminous point projected on the retina, the latter having a structure analogous to a cortical area): both schemas presuppose a "plane," not an end or a program, but a *survey of the entire field.* This is what Gestalt theory does not explain, any more than mechanism explains preassembly [*prémontage*].

It is not surprising that the brain, treated as a constituted object of science, can be an organ only of the formation and communication of opinion: this is because step-by-step connections and centered integrations are still based on the limited model of recognition (gnosis and praxis; "this is a cube"; "this is a pencil"), and the biology of the brain is here aligned on the same postulates as the most stubborn logic. Opinions are pregnant forms, like soap bubbles according to the Gestalt, with regard to milieus, interests, beliefs, and obstacles. Thus it seems difficult to treat philosophy, art, and even science as "mental objects," simple assemblages of neurones in the objectified brain, since the derisory model of recognition confines these latter within the *doxa.* If the mental objects of philosophy, art, and science (that is to say, vital ideas) have a place, it will be in the deepest of the synaptic fissures, in the hiatuses, intervals, and meantimes of a nonobjectifiable brain; in a place where to go in search of them will be to create. It will be a bit like tuning a television screen whose intensities would bring out that which escapes the power of objective definition.[9] That is to say, thought, even in the form it actively assumes in science, does not depend upon a brain made up of organic connections and integrations: according to phenomenology, thought depends on man's relations with the world—with which the brain is necessarily in agreement because it is drawn from these relations, as excitations are drawn from the world and reactions from man, includ-

ing their uncertainties and failures. "Man thinks, not the brain"; but this ascent of phenomenology beyond the brain toward a Being in the world, through a double criticism of mechanism and dynamism, hardly gets us out of the sphere of opinions. It leads us only to an *Urdoxa* posited as original opinion, or meaning of meanings.[10]

Will the turning point not be elsewhere, in the place where the brain is "subject," where it becomes subject? It is the brain that thinks and not man—the latter being only a cerebral crystallization. We will speak of the brain as Cézanne spoke of the landscape: man absent from, but completely within the brain. Philosophy, art, and science are not the mental objects of an objectified brain but the three aspects under which the brain becomes subject, Thought-brain. They are the three planes, the rafts on which the brain plunges into and confronts the chaos. What are the characteristics of this brain, which is no longer defined by connections and secondary integrations? It is not a brain behind the brain but, first of all, a state of survey without distance, at ground level, a self-survey that no chasm, fold, or hiatus escapes. It is a primary, "true form" as Ruyer defined it: neither a Gestalt nor a perceived form but a *form in itself* that does not refer to any external point of view, any more than the retina or striated area of the cortex refers to another retina or cortical area; it is an absolute consistent form that surveys *itself* independently of any supplementary dimension, which does not appeal therefore to any transcendence, which has only a single side whatever the number of its dimensions, which remains copresent to all its determinations without proximity or distance, traverses them at infinite speed, without limit-speed, and which makes of them so many *inseparable variations* on which it confers an equipotentiality without confusion.[11] We have seen that this was the status of the concept as pure event or reality of the virtual. And doubtless concepts are not limited to just one and the same brain since each one of them constitutes a "domain of survey," and the transitions from one concept to another remain irreducible insofar as a new concept does not render its copresence or

equipotentiality of determinations necessary in turn. Nor will we say that every concept is a brain. But the brain, under its first aspect of absolute form, appears as the faculty of concepts, that is to say, as the faculty of their creation, at the same time that it sets up the plane of immanence on which concepts are placed, move, change order and relations, are renewed, and never cease being created. The brain is the *mind* itself. At the same time that the brain becomes subject—or rather "superject," as Whitehead puts it—the concept becomes object as created, as event or creation itself; and philosophy becomes the plane of immanence that supports the concepts and that the brain lays out. Cerebral movements also give rise to conceptual personae.

It is the brain that says *I*, but *I* is an other. It is not the same brain as the brain of connections and secondary integrations, although there is no transcendence here. And this *I* is not only the "I conceive" of the brain as philosophy, it is also the "I feel" of the brain as art. Sensation is no less brain than the concept. If we consider the nervous connections of excitation-reaction and the integrations of perception-action, we need not ask at what stage on the path or at what level sensation appears, for it is presupposed and withdrawn. The withdrawal is not the opposite but a correlate of the survey. Sensation is excitation itself, not insofar as it is gradually prolonged and passes into the reaction but insofar as it is preserved or preserves its vibrations. Sensation contracts the vibrations of the stimulant on a nervous surface or in a cerebral volume: what comes before has not yet disappeared when what follows appears. This is its way of responding to chaos. Sensation itself vibrates because it contracts vibrations. It preserves itself because it preserves vibrations: it is Monument. It resonates because it makes its harmonics resonate. Sensation is the contracted vibration that has become quality, variety. That is why the brain-subject is here called *soul* or *force,* since only the soul preserves by contracting that which matter dissipates, or radiates, furthers, reflects, refracts, or converts. Thus the search for sensation is fruitless if we go no farther than reactions and the excitations that

they prolong, than actions and the perceptions that they reflect: this is because the soul (or rather, the force), as Leibniz said, does nothing, or does not act, but is only present; it preserves. Contraction is not an action but a pure passion, a contemplation that preserves the before in the after.[12] Sensation, then, is on a plane that is different from mechanisms, dynamisms, and finalities: it is on a plane of composition where sensation is formed by contracting that which composes it, and by composing itself with other sensations that contract it in turn. Sensation is pure contemplation, for it is through contemplation that one contracts, contemplating oneself to the extent that one contemplates the elements from which one originates. Contemplating is creating, the mystery of passive creation, sensation. Sensation fills out the plane of composition and is filled with itself by filling itself with what it contemplates: it is "enjoyment" and "self-enjoyment."* It is a subject, or rather an *inject*. Plotinus defined all things as contemplations, not only people and animals but plants, the earth, and rocks. These are not Ideas that we contemplate through concepts but the elements of matter that we contemplate through sensation. The plant contemplates by contracting the elements from which it originates—light, carbon, and the salts—and it fills itself with colors and odors that in each case qualify its variety, its composition: it is sensation in itself.[13] It is as if flowers smell themselves by smelling what composes them, first attempts of vision or of sense of smell, before being perceived or even smelled by an agent with a nervous system and a brain.

Of course, plants and rocks do not possess a nervous system. But, if nerve connections and cerebral integrations presuppose a brain-force as faculty of feeling coexistent with the tissues, it is reasonable to suppose also a faculty of feeling that coexists with embryonic tissues and that appears in the Species as a collective brain; or with the vegetal tissues in the "small species." Chemical affinities and

*In English in the original.

physical causalities themselves refer to primary forces capable of preserving their long chains by contracting their elements and by making them resonate: no causality is intelligible without this subjective instance. Not every organism has a brain, and not all life is organic, but everywhere there are forces that constitute microbrains, or an inorganic life of things. We can dispense with Fechner's or Conan Doyle's splendid hypothesis of a nervous system of the earth only because the force of contracting or of preserving, that is to say, of feeling appears only as a global brain in relation to the elements contracted directly and to the mode of contraction, which differ depending on the domain and constitute precisely irreducible varieties. But, in the final analysis, the same ultimate elements and the same withdrawn force constitute a single plane of composition bearing all the varieties of the universe. Vitalism has always had two possible interpretations: that of an Idea that acts, but is not—that acts therefore only from the point of view of an external cerebral knowledge (from Kant to Claude Bernard); or that of a force that is but does not act—that is therefore a pure internal Awareness (from Leibniz to Ruyer). If the second interpretation seems to us to be imperative it is because the contraction that preserves is always in a state of detachment in relation to action or even to movement and appears as a pure contemplation without knowledge. This can be seen even in the cerebral domain par excellence of apprenticeship or the formation of habits: although everything seems to take place by active connections and progressive integrations, from one test to another, the tests or cases, the occurrences, must, as Hume showed, be contracted in a contemplating "imagination" while remaining distinct in relation to actions and to knowledge. Even when one is a rat, it is through contemplation that one "contracts" a habit. It is still necessary to discover, beneath the noise of actions, those internal creative sensations or those silent contemplations that bear witness to a brain.

These first two aspects or layers of the brain-subject, sensation as much as the concept, are very fragile. Not only objective disconnec-

tions and disintegrations but an immense weariness results in sensations, which have now become woolly, letting escape the elements and vibrations it finds increasingly difficult to contract. Old age is this very weariness: then, there is either a fall into mental chaos outside of the plane of composition or a falling-back on ready-made opinions, on cliches that reveal that an artist, no longer able to create new sensations, no longer knowing how to preserve, contemplate, and contract, no longer has anything to say. The case of philosophy is a bit different, although it depends upon a similar weariness. In this case, weary thought, incapable of maintaining itself on the plane of immanence, can no longer bear the infinite speeds of the third kind that, in the manner of a vortex, measure the concept's copresence to all its intensive components at once (consistency). It falls back on the relative speeds that concern only the succession of movement from one point to another, from one extensive component to another, from one idea to another, and that measure simple associations without being able to reconstitute any concept. No doubt these relative speeds may be very great, to the point of simulating the absolute, but they are only the variable speeds of opinion, of discussion or "repartee," as with those untiring young people whose mental quickness is praised, but also with those weary old ones who pursue slow-moving opinions and engage in stagnant discussions by speaking all alone, within their hollowed head, like a distant memory of their old concepts to which they remain attached so as not to fall back completely into the chaos.

No doubt, as Hume says, causalities, associations, and integrations inspire opinions and beliefs in us that are ways of expecting and recognizing something (including "mental objects"): it will rain, the water will boil, this is the shortest route, this is the same figure from a different view. But, although such opinions frequently slip in among scientific propositions, they do not form part of them; and science subjects these processes to operations of a different nature, which constitute an activity of knowing and refer to a faculty of knowledge as the third layer of a brain-subject that is no less creative than the

other two. Knowledge is neither a form nor a force but a *function:* "I function." The subject now appears as an "eject," because it extracts elements whose principal characteristic is distinction, discrimination: limits, constants, variables, and functions, all those functives and prospects that form the terms of the scientific proposition. Geometrical projections, algebraic substitutions and transformations consist not in recognizing something through variations but in distinguishing variables and constants, or in progressively discriminating the terms that tend toward successive limits. Hence, when a constant is assigned in a scientific operation, it is not a matter of contracting cases or moments in a single contemplation but one of establishing a necessary relation between factors that remain independent. The fundamental actions of the scientific faculty of knowledge appear to us in this sense to be the following: setting limits that mark a renunciation of infinite speeds and lay out a plane of reference; assigning variables that are organized in series tending toward these limits; coordinating the independent variables in such a way as to establish between them or their limits necessary relations on which distinct functions depend, the plane of reference being a coordination in actuality; determining mixtures or states of affairs that are related to the coordinates and to which functions refer. It is not enough to say that these operations of scientific knowledge are functions of the brain; the functions are themselves the folds of a brain that lay out the variable coordinates of a plane of knowledge (reference) and that dispatch partial observers everywhere.

There is still an operation that clearly shows the persistence of chaos, not only around the plane of reference or coordination but in the detours of its variable surface, which are always put back into play. These are operations of branching and individuation: if states of affairs are subject to them it is because they are inseparable from the potentials they take from chaos itself and that they do not actualize without risk of dislocation or submergence. It is therefore up to science to make evident the chaos into which the brain itself, as

subject of knowledge, plunges. The brain does not cease to constitute limits that determine functions of variables in particularly extended areas; relations between these variables (connections) manifest all the more an uncertain and hazardous characteristic, not only in electrical synapses, which show a statistical chaos, but in chemical synapses, which refer to a deterministic chaos.[14] There are not so much cerebral centers as points, concentrated in one area and disseminated in another, and "oscillators," oscillating molecules that pass from one point to another. Even in a linear model like that of the conditioned reflex, Erwin Straus has shown that it was essential to understand the intermediaries, the hiatuses and gaps. Arborized paradigms give way to rhizomatic figures, acentered systems, networks of finite automatons, chaoid states. No doubt this chaos is hidden by the reinforcement of opinion generating facilitating paths, through the action of habits or models of recognition; but it will become much more noticeable if, on the contrary, we consider creative processes and the bifurcations they imply. And individuation, in the cerebral state of affairs, is all the more functional because it does not have the cells themselves for variables, since the latter constantly die without being renewed, making the brain a set of little deaths that puts constant death within us. It calls upon a potential that is no doubt actualized in the determinable links that derive from perceptions, but even more in the free effect that varies according to the creation of concepts, sensations, or functions themselves.

The three planes, along with their elements, are irreducible: *plane of immanence of philosophy, plane of composition of art, plane of reference or coordination of science; form of concept, force of sensation, function of knowledge; concepts and conceptual personae, sensations and aesthetic figures, figures and partial observers*. Analogous problems are posed for each plane: in what sense and how is the plane, in each case, one or multiple—what unity, what multiplicity? But what to us seem more important now are the problems of interference between the planes that join up in the brain. A first type of interference

appears when a philosopher attempts to create the concept of a sensation or a function (for example, a concept peculiar to Riemannian space or to irrational number); or when a scientist tries to create functions of sensations, like Fechner or in theories of color or sound, and even functions of concepts, as Lautman demonstrates for mathematics insofar as the latter actualizes virtual concepts; or when an artist creates pure sensations of concepts or functions, as we see in the varieties of abstract art or in Klee. In all these cases the rule is that the interfering discipline must proceed with its own methods. For example, sometimes we speak of the intrinsic beauty of a geometrical figure, an operation, or a demonstration, but so long as this beauty is defined by criteria taken from science, like proportion, symmetry, dissymmetry, projection, or transformation, then there is nothing aesthetic about it: this what Kant demonstrated with such force.[15] The function must be grasped within a sensation that gives it percepts and affects composed exclusively by art, on a specific plane of creation that wrests it from any reference (the intersection of two black lines or the thickness of color in the right angles in Mondrian; or the approach of chaos through the sensation of strange attractors in Noland or Shirley Jaffe).

These, then, are extrinsic interferences, because each discipline remains on its own plane and utilizes its own elements. But there is a second, intrinsic type of interference when concepts and conceptual personae seem to leave a plane of immanence that would correspond to them, so as to slip in among the functions and partial observers, or among the sensations and aesthetic figures, on another plane; and similarly in the other cases. These slidings are so subtle, like those of Zarathustra in Nietzsche's philosophy or of Igitur in Mallarmé's poetry, that we find ourselves on complex planes that are difficult to qualify. In turn, partial observers introduce into science sensibilia that are sometimes close to aesthetic figures on a mixed plane.

Finally, there are interferences that cannot be localized. This is because each distinct discipline is, in its own way, in relation with a

negative: even science has a relation with a nonscience that echoes its effects. It is not just a question of saying that art must form those of us who are not artists, that it must awaken us and teach us to feel, and that philosophy must teach us to conceive, or that science must teach us to know. Such pedagogies are only possible if each of the disciplines is, on its own behalf, in an essential relationship with the No that concerns it. The plane of philosophy is prephilosophical insofar as we consider it in itself independently of the concepts that come to occupy it, but nonphilosophy is found where the plane confronts chaos. *Philosophy needs a nonphilosophy that comprehends it; it needs a nonphilosophical comprehension just as art needs nonart and science needs nonscience.*[16] They do not need the No as beginning, or as the end in which they would be called upon to disappear by being realized, but at every moment of their becoming or their development. Now, if the three Nos are still distinct in relation to the cerebral plane, they are no longer distinct in relation to the chaos into which the brain plunges. In this submersion it seems that there is extracted from chaos the shadow of the "people to come" in the form that art, but also philosophy and science, summon forth: mass-people, world-people, brain-people, chaos-people—nonthinking thought that lodges in the three, like Klee's nonconceptual concept or Kandinsky's internal silence. It is here that concepts, sensations, and functions become undecidable, at the same time as philosophy, art, and science become indiscernible, as if they shared the same shadow that extends itself across their different nature and constantly accompanies them.

Notes

Introduction: The Question Then . . .

1. See *L'oeuvre ultime de Cézanne à Dubuffet* (Saint-Paul-de-Vence: Fondation Maeght, 1976), with preface by Jean-Louis Prat.

2. Pierre Barbéris, *Chateaubriand: Une réaction au monde moderne* (Paris: Larousse, 1976): "*Rancé,* a book on old age as impossible value, is a book written against old age in power; it is a book of universal ruins in which only the power of writing is affirmed."

3. Alexandre Kojève, "Tyranny and Wisdom," in Leo Strauss, *On Tyranny,* p. 156 (New York: Cornell University Press, 1968).

4. For example, Xenophon, *Constitution of the Lacedaemonians,* 4.5. These aspects of the city have been analyzed by Detienne and Vernant.

5. On the relationship of friendship with the possibility of thought in the modern world, see Maurice Blanchot, *L'amitié* (Paris: Gallimard, 1971), and the dialogue between two weary men in Maurice Blanchot, *The Infinite Conversation,* trans. Susan Hanson (Minneapolis: University of Minnesota Press, 1993). See also Dionys Mascolo, *Autour d'un effort de mémoire* (Paris: Nadeau, 1987).

6. F. Nietzsche, *The Will to Power,* trans. Walter Kaufman and R. J. Hollingdale (New York: Vintage, 1968), 409.

7. Plato, *The Statesman,* 268a, 279a.

8. In a form that is deliberately like a schoolbook, Frédéric Cossutta has proposed a very interesting pedagogy of the concept: Frédéric Cossutta, *Eléments pour la lecture des textes philosophiques* (Paris: Bordas, 1989).

1: What Is a Concept?

1. This history, which does not begin with Leibniz, passes through episodes as diverse as the constant

22. Piet Mondrian, "Réalité naturelle et réalité abstraite," in Michel Seuphor, *Piet Mondrian, sa vie, sa oeuvre* (Paris: Flammarion, n.d.), on the room and its unfolding. Michel Butor has analyzed this unfolding of the room into squares or rectangles, and the opening onto an interior square, empty and white like the "promise of a future room." Michel Butor, "Le carré et son habitant," *Répertoire III* (Paris: Minuit, 1992), pp. 307–9, 314–15.

23. It seems to us that Lorenz's mistake is wanting to explain the territory by an evolution of functions: Konrad Lorenz, *On Aggression,* trans. Marjorie Kerr Wilson (New York: Harcourt, Brace and World, 1966).

24. Alan John Marshall, *Bower Birds* (Oxford: Clarendon Press, 1954); and E. T. Gilliard, *Birds of Paradise and Bower Birds* (London: Weidenfeld, 1969).

25. See Jakob von Uexküll's masterpiece, *Mondes animaux et monde humain, Théorie de la signification* (Paris: Gonthier, 1965), pp. 137–42: "counterpoint, motif of development, and morphogenesis."

26. Henry van de Velde, *Déblaiement d'art* (Brussels: Archives architecture moderne, 1979), p. 20.

27. On all these points, the analysis of enframing forms, and of the town-cosmos (the example of Lausanne), see Bernard Cache's forthcoming *L'ameublement du territoire.*

28. Pascal Bonitzer formed the concept of deframing [*décadrage*] in order to highlight new relationships between the planes in cinema (*Cahiers du cinéma* 284 [January 1978]): "disjointed, crushed or fragmented" planes, thanks to which cinema becomes an art by getting free from the commonest emotions, which were in danger of preventing its aesthetic development, and by producing new affects. See Pascal Bonitzer, *Le champ aveugle: essais sur le cinéma* (Paris: Gallimard–Cahiers du Cinéma, 1982): "system of the emotions."

29. Mikhail Bakhtine, *Esthétique et théorie du roman,* trans. Daria Olivier (Paris: Gallimard, 1978).

30. Pierre Boulez, especially *Orientations,* trans. Martin Cooper (London: Faber, 1986), and *Boulez on Music Today,* trans. S. Bradshaw and Richard Rodney Bennett (London: Faber, 1971). The extension of the series into durations, intensities, and timbres is not an act of closure but, on the contrary, an opening of what is closed in the series of pitches [*hauteurs*].

31. Xavier de Langlais, *La technique de la peinture à l'huile* (Paris: Flammarion, 1988); Johann Wolfgang von Goethe, *Theory of Colors* (Cambridge, Mass.: MIT Press, 1970), 902–9.

32. See Christian Bonnefoi, "Interview et comment par Yves-Alain Bois," *Macula* (n.d.), 5–6.

33. Hubert Damisch, *Le fenêtre jaune cadmium; ou Les dessous de la peinture* (Paris: Seuil, 1984), pp. 275–305 (and p. 80, on the thickness of the plane in Pollock). Damisch has insisted more than other writers on art-as-thought and painting-as-thought, such as Dubuffet in particular sought to institute. Mallarmé made the book's "thickness" a dimension distinct from its depth; see Jacques Schérer, *Le Livre de Mallarmé* (Paris: Gallimard, 1978), p. 55. Boulez takes up this theme on his own account for music (*Orientations*).

Conclusion: From Chaos to the Brain

1. Immanuel Kant, *Critique of Pure Reason,* trans. N. Kemp-Smith (London: Macmillan, 1929), Transcendental Analytic, "The Synthesis of Reproduction in Imagination."

2. On Cézanne and chaos, see Gasquet, *Cézanne*; on Klee and chaos, see Paul Klee, "Note on the Gray Point," in *Théorie de l'art moderne* (Paris: Gonthier, 1963). See also the analyses of Henri Maldiney, *Regard Parole Espace* (Paris: L'Age d'homme, 1973), pp. 150–51, 183–85.

3. Galois, in Dalmas, *Evariste Galois,* pp. 121, 130.

4. Lawrence, "Chaos in Poetry," in D. H. Lawrence, *Selected Literary Criticism,* ed. A. Beal (London: Heinemann, 1955).

5. Georges Didi-Huberman, *La peinture incarnée* (Paris: Minuit, 1985), pp. 120–23, on the flesh and chaos.

6. Michel Serres, *Le système de Leibniz* (Paris: P.U.F., 1990), vol.1, p. 111 (and pp. 120–23, on the succession of filters).

7. On strange attractors, independent variables, and "routes toward chaos," see Prigogine and Stengers, *Entre le temps et l'éternité,* chap. 4, and James Gleick, *Chaos.*

8. See Martial Guéroult, *L'évolution et la structure de la Doctrine de la science chez Fichte* (Paris: Belles Lettres, 1982), vol. 1, p. 174.

9. Jean-Clet Martin's forthcoming *Variations.*

10. Erwin Straus, *Du sens des sens,* part 3.

11. Raymond Ruyer, *Néo-finalisme* (Paris: P.U.F., 1952). Throughout his work Ruyer has directed a double critique against mechanism and dynamism (Gestalt), which differs from the critique made by phenomenology.

12. David Hume defines imagination by this passive contemplation-contraction: *A Treatise of Human Nature* (Oxford: Clarendon Press, 1978), book 1, part 3, 14.

13. Plotinus's great text on contemplations is at the beginning of *Enneades* 3.8. The empiricists, from Hume to Butler to Whitehead, will take up the theme by inclining it toward substance; hence their neo-Platonism.

14. Burns, *The Uncertain Nervous System* (London: Edward Arnold,

n.d.). See also Steven Rose, *The Conscious Brain* (New York: Knopf, 1975): "The nervous system is uncertain, probabilistic, and so interesting."

15. Immanuel Kant, *Critique of Judgement,* trans. J. H. Bernard (New York: Macmillan, 1951), 62.

16. François Laruelle proposes a comprehension of nonphilosophy as the "real (of) science," beyond the object of knowledge: *Philosophie et non-philosophie* (Liege: Mardaga, 1989). But we do not see why this real of science is not nonscience as well.

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