

- 10 From the catalogue of the exhibition 'Photographs of the Salpêtrière', organized by Franco Cagnetta in the spring of 1980 in Venice. Published in *Furor*, 4 (October 1981).
- 11 Text rewritten on the basis of a paper given to the conference 'The states of theory', held at the University of California, Irvine, in April 1987, under the aegis of the Focused Research Program in Contemporary Critical Theory, under its director Murray Krieger.
- 12 Paper given to the conference 'Museum/Memorial', organized by Jean-Louis Déotte under the aegis of the Bibliothèque Publique d'Information and the Collège International de Philosophie, at the Georges Pompidou Centre, Paris, in October 1986.
- 13 Paper presented to the conference 'Music and repetition', organized by Marie-Louise Mallet under the aegis of the Collège International de Philosophie in Lyon, January 1987.
- 14 Paper presented to the conference 'On musical writing', organized by Christine Buci-Glucksmann and Michaël Levinas under the aegis of the Collège International de Philosophie and L'Itineraire at the Sorbonne, June 1986. Published in *InHarmoniques*, 1 (1987).
- 15 Published in the *Revue des sciences humaines*, 1 (1988) in a special issue on 'Writing the Landscape', edited by Jean-Marc Besse. This translation by David Macey reprinted from 'Scapeland' in Andrew Benjamin (ed.), *The Lyotard Reader* (Oxford: Blackwell, 1989), by kind permission.
- 16 Paper given to the conference 'Le non sens commun', organized by Paolo Fabbri, Maurizio Ferraris, Jean-François Lyotard and Pino Paioni, under the aegis of the Centro Internazionale di Semiotica e di Linguistica and the Collège International de Philosophie, Urbino, July 1987. Published in *Po&sie*, 44 (1988).

## Introduction: About the Human

Humanism administers lessons to 'us' (?). In a million ways, often mutually incompatible. Well founded (Apel) and non-founded (Rorty), counterfactual (Habermas, Rawls) and pragmatic (Searle), psychological (Davidson) and ethico-political (the French neo-humanists). But always as if at least man were a certain value, which has no need to be interrogated. Which even has the authority to suspend, forbid interrogation, suspicion, the thinking which gnaws away at everything.

What *value* is, what *sure* is, what *man* is, these questions are taken to be dangerous and shut away again pretty fast. It is said that they open the way to 'anything goes', 'anything is possible', 'all is worthless'. Look, they add, what happens to the ones who go beyond this limit: Nietzsche taken hostage by fascist mythology, Heidegger a Nazi, and so on . . . .

Even what may be worrying in Kant from this point of view, what is not anthropological but properly transcendental, and what, in the critical tension, goes so far as to break up the more or less presupposed unity of a (human) subject, as is the case – to me exemplary – of the analysis of the sublime or the historico-political writings, even that gets expurgated. On the pretext of a return to Kant, all they do is to shelter the humanist prejudice under his authority.

A similar movement of restoration is also attacking the writing and reading of texts, and the visual arts and architecture. In the name of norm-bound public reception, Jauss refuses the text of Adorno: the writing of the *Aesthetic*

*Theory*, twisted, uncertain, almost haggard, is judged unreadable. Be communicable, that is the prescription. Avant-garde is old hat, talk about humans in a human way, address yourself to human beings, if they enjoy receiving you then they will receive you.

It is not that humanism is simply a marketing operation. Those who tell 'us' (?) off are not all culture-industry hacks. They also call themselves philosophers. But what *philosophy* is must not be interrogated either, at the risk of falling into who knows what. I am not dreaming: the aim of the avant-gardes (dreadful name, I know) is something that they declared on numerous occasions. In 1913, Apollinaire wrote ingeniously: 'More than anything, artists are men who want to become inhuman.' And in 1969, Adorno again, more prudently: 'Art remains loyal to humankind uniquely through its inhumanity in regard to it.'

The 'talks' collected here – they are all commissioned lectures, mostly destined for a non-professional audience, and the rest for confiding – have neither the function nor the value of a manifesto or treatise. The suspicion they betray (in both senses of this word) is simple, although double: what if human beings, in humanism's sense, were in the process of, constrained into, becoming inhuman (that's the first part)? And (the second part), what if what is 'proper' to humankind were to be inhabited by the inhuman?

Which would make two sorts of inhuman. It is indispensable to keep them dissociated. The inhumanity of the system which is currently being consolidated under the name of development (among others) must not be confused with the infinitely secret one of which the soul is hostage. To believe, as happened to me, that the first can take over from the second, give it expression, is a mistake. The system rather has the consequence of causing the forgetting of what escapes it. But the anguish is that of a mind haunted by a familiar and unknown guest which is agitating it, sending it delirious but also making it think – if one claims to exclude it, if one doesn't give it an outlet, one aggravates it. Discontent grows with this civilization, foreclosure along with information.

Many of these lectures bear on the question of time. The reason is that it is decisive for the separation we are talking

about. Development imposes the saving of time. To go fast is to forget fast, to retain only the information that is useful afterwards, as in 'rapid reading'. But writing and reading which advance backwards in the direction of the unknown thing 'within' are slow. One loses one's time seeking time lost. Anamnesis is the other pole – not even that, there is no common axis – the *other* of acceleration and abbreviation.

Let's illustrate this with a word about an 'example' which is in fact exemplary, and accessible to the humanists: education. If humans are born human, as cats are born cats (within a few hours), it would not be... I don't even say desirable, which is another question, but simply possible, to educate them. That children have to be educated is a circumstance which only proceeds from the fact that they are not completely led by nature, not programmed. The institutions which constitute culture supplement this native lack.

What shall we call human in humans, the initial misery of their childhood, or their capacity to acquire a 'second' nature which, thanks to language, makes them fit to share in communal life, adult consciousness and reason? That the second depends on and presupposes the first is agreed by everyone. The question is only that of knowing whether this dialectic, whatever name we grace it with, leaves no remainder.

If this were the case, it would be inexplicable for the adult himself or herself not only that s/he has to struggle constantly to assure his or her conformity to institutions and even to arrange them with a view to a better living-together, but that the power of criticizing them, the pain of supporting them and the temptation to escape them persist in some of his or her activities. I do not mean only symptoms and particular deviancies, but what, in our civilization at least, passes as institutional: literature, the arts, philosophy. There too, it is a matter of traces of an indetermination, a childhood, persisting up to the age of adulthood.

It is a consequence of these banal observations that one can take pride in the title of humanity for exactly opposite reasons. Shorn of speech, incapable of standing upright, hesitating over the objects of its interest, not able to calculate its advantages, not sensitive to common reason, the child is

eminently the human because its distress heralds and promises things possible. Its initial delay in humanity, which makes it the hostage of the adult community, is also what manifests to this community the lack of humanity it is suffering from, and which calls on it to become more human.

But endowed with the means of knowing and making known, of doing and getting done, having interiorized the interests and values of civilization, the adult can pretend to full humanity in his or her turn, and to the effective realization of mind as consciousness, knowledge and will. That it always remains for the adult to free himself or herself from the obscure savageness of childhood by bringing about its promise – that is precisely the condition of humankind.

So between the two versions of humanism, there would only be a difference of emphasis. A well-ordered dialectic or hermeneutics hasten to come along and harmonize them. In short, our contemporaries find it adequate to remind us that what is proper to humankind is its absence of defining property, its nothingness, or its transcendence, to display the sign 'no vacancy'.

I do not like this haste. What it hurries, and crushes, is what after the fact I find I have always tried, under diverse headings – work, figural, heterogeneity, dissensus, event, thing – to reserve: the unharmonizable. (And I am not the only one, which is why I write 'us'.) That a senseless difference be *destined* to making sense, as opposition in a system, to talk structuralist, is one thing; another is that it is *promised* to the becoming-system. As if reason had no doubt that its vocation is to draw on the indeterminate to give it form, and that it cannot fail to succeed in this. Yet it is only at the price of this doubt that reason reasons.

This, we might say, is a basic motive for keeping at a distance any form of reconciliatory speculation. The appreciation of the contemporary situation provides another nourishment for this reserve. We should first remember that if the name of human can and must oscillate between native indetermination and instituted or self-instituting reason, it is the same for the name of inhuman. All education is *inhuman* because it does not happen without *constraint* and *terror*; I mean the least controlled, the least pedagogical

terror, the one Freud calls castration and which makes him say, in relation to the 'good way' of bringing up children, that in any case it will be bad (close in this to Kantian melancholy). And conversely, everything in the instituted which, in the event, can cut deep with distress and indetermination is so threatening that the reasonable mind cannot fail to fear in it, and rightly, an inhuman power of deregulation.

But the stress thus placed on the conflict of inhumanities is legitimated, nowadays more than previously, by the fact of a transformation of the nature of the system which I believe is a profound one.

We have to try to understand this transformation, without pathos but also without negligence. We have to regard as an inconsistency thinking which takes no account of it and 'sets up' descriptions, even if counterfactual, which is to say ideal or utopian, and especially the first, as if there were nothing more preventing their realization or truth nowadays than two centuries ago. The term *postmodern* has been used, badly rather than well if I judge by the results, to designate something of this transformation.

It will be seen in the pages which follow how one can try to describe it following the general, positivist hypothesis of a process of complexification, negative entropy or, put more simply, development. This hypothesis is not only suggested by the convergence of tendencies animating all the sub-groups of contemporary activity, it is the very argument of the discourse maintained about their researches by the scientists, the technologists and their accredited philosophers to legitimate, scientifically and technologically, the possibility of their development. Inevitably, it is a discourse of general physics, with its dynamics, its economics, its cybernetics. Any discourse of general physics is a metaphysical discourse, as we have known since Aristotle and Leibniz.

This discourse is just as much the one which the political or socioeconomic decision-maker uses to legitimate his or her options: competitiveness, better distribution of costs, democracy in society, enterprise, school and family. Even the rights of man, which however came from a quite different horizon, can be appealed to in reinforcement of the authority of the

system, although it, according to the very way it is set up, can only make of them an episodic case.

I am not making this hypothesis about development my own, because it is a way, *the way*, for metaphysics, henceforth ruled out for thinking, to re-establish its rights over it. To re-establish them not *within* thinking (if I make an exception of the thinking which still calls itself philosophical, which is to say metaphysical), but *from the outside* of thinking. Metaphysics being impossible as such, it makes itself reality and thus acquires the rights *de facto*. This situation defines quite usefully what we used to call *ideology*, in that ideology is not remarkable so much as a system of ideas but rather as a power of realization. 'Development' is the ideology of the present time, it realizes the essential of metaphysics, which was a thinking pertaining to forces much more than to the subject.

Pursuing the argument just a little, as is done here, one concludes that the system by which native indeterminism is constrained, 'forced', even if in the trappings of permissiveness, does not proceed from the reason of mankind, say of the Enlightenment. It results from a process of development, where it is not mankind which is the issue, but differentiation. This obeys a simple principle: between two elements, whatever they are, whose relation is given at the start, it is always possible to introduce a third term which will assure a better regulation. *Better* means more reliable, but also of greater capacity. The initial relation mediated in this way appears as a particular case in a series of possible regulations. Mediation does not only imply the alienation of elements as to their relation, it permits the modulation of that relation. And the 'richer' - i.e. itself mediated - the mediating term, the more numerous the possible modifications, the suppler the regulation, the more floating the rate of exchange between the elements, the more permissive the mode of relation.

The description is abstract. It could be illustrated easily from elements as apparently diverse as economic or social partners, the cells of an organ or organism, the constituents of the molecule or nucleus, monetary tender, opposing military powers. The new technologies and the media are aspects of the same differentiation.

The striking thing about this metaphysics of development is that it needs no finality. Development is not attached to an Idea, like that of the emancipation of reason and of human freedoms. It is reproduced by accelerating and extending itself according to its internal dynamic alone. It assimilates risks, memorizes their informational value and uses this as a new mediation necessary to its functioning. It has no necessity itself other than a cosmological chance.

It has thus no end, but it does have a limit, the expectation of the life of the sun. The anticipated explosion of this star is the only challenge objectively posed to development. The natural selection of systems is thus no longer of a biological, but of a cosmic order. It is to take up this challenge that all research, whatever its sector of application, is being set up already in the so-called developed countries. The interest of humans is subordinate in this to that of the survival of complexity.

And finally, since development is the very thing which takes away the hope of an alternative to the system from both analysis and practice, since the politics which 'we' have inherited from revolutionary modes of thought and actions now turns out to be redundant (whether we find this a cause for joy or a matter to be deplored), the question I am raising here is simply this: what else remains as 'politics' except resistance to this inhuman? And what else is left to resist with but the debt which each soul has contracted with the miserable and admirable indeterminism from which it was born and does not cease to be born? - which is to say, with the other inhuman?

This debt to childhood is one which we never pay off. But it is enough not to forget it in order to resist it and perhaps, not to be unjust. It is the task of writing, thinking, literature, arts, to venture to bear witness to it.

## Can Thought go on without a Body?

HE

You philosophers ask questions without answers, questions that have to remain unanswered to deserve being called philosophical. According to you answered questions are only technical matters. That's what they were to begin with. They were mistaken for philosophical questions. You turn to other questions that seem completely impossible to answer: which by definition resist every attempt at conquest by the understanding. Or what amounts to the same thing: you declare if the first questions were answered, that's because they were badly formulated. And you grant yourselves the privilege of continuing to regard as unresolved, that is as well formulated, questions that technical science believes it answered but in truth only inadequately dealt with. For you solutions are just illusions, failures to maintain the integrity due to being – or some such thing. Long live patience. You'll hold out forever with your incredulity. But don't be surprised if all the same, through your irresolution, you end up wearing out your reader.

But that's not the question. While we talk, the sun is getting older. It will explode in 4.5 billion years. It's just a little beyond the halfway point of its expected lifetime. It's like a man in his early forties with a life expectancy of eighty. With the sun's death your insoluble questions will be done with too. It's possible they'll stay unanswered right up to the end, flawlessly formulated, though now both grounds for raising

such questions as well as the place to do this will no longer exist. You explain: it's impossible to think an end, pure and simple, of anything at all, since the end's a limit and to think it you have to be on both sides of that limit. So what's finished or finite has to be perpetuated in our thought if it's to be thought of as finished. Now this is true of limits belonging to thought. But after the sun's death there won't be a thought to know that its death took place.

That, in my view, is the sole serious question to face humanity today. In comparison everything else seems insignificant. Wars, conflicts, political tension, shifts in opinion, philosophical debates, even passions – everything's dead already if this infinite reserve from which you now draw energy to defer answers, if in short thought as quest, dies out with the sun. Maybe death isn't the word. But the inevitable explosion to come, the one that's always forgotten in your intellectual ploys, can be seen in a certain way as coming before the fact to render these ploys posthumous – make them futile. I'm talking about what's X'd out of your writings – matter. Matter taken as an arrangement of energy created, destroyed and recreated over and over again, endlessly. On the corpuscular and/or cosmic scale I mean. I am not talking about the familiar, reassuring terrestrial world or the reassuring transcendent immanence of thought to its objects, analogous to the way the eye transcends what's visible or *habitus* its *situs*. In 4.5 billion years there will arrive the demise of your phenomenology and your utopian politics, and there'll be no one there to toll the death knell or hear it. It will be too late to understand that your passionate, endless questioning always depended on a 'life of the mind' that will have been nothing else than a covert form of earthly life. A form of life that was spiritual because human, human because earthly – coming from the earth of the most living of living things. Thought borrows a horizon and orientation, the limitless limit and the end without end it assumes, from the corporeal, sensory, emotional and cognitive experience of a quite sophisticated but definitely earthly existence – to which it's indebted as well.

With the disappearance of earth, thought will have stopped – leaving that disappearance absolutely unthought of. It's the

horizon itself that will be abolished and, with its disappearance, your transcendence in immanence as well. If, as a limit, death really is what escapes and is deferred and as a result what thought has to deal with, right from the beginning – this death is still only the life of our minds. But the death of the sun is a death of mind, because it is the death of death as the life of the mind. There's no sublation or deferral if nothing survives. This annihilation is totally different from the one you harangue us about talking about 'our' death, a death that is part of the fate of living creatures who think. Annihilation in any case is too subjective. It will involve a change in the condition of matter: that is, in the form that energies take. This change is enough to render null and void your anticipation of a world after the explosion. Political science-fiction novels depict the cold desert of our human world after nuclear war. The solar explosion won't be due to human war. It won't leave behind it a devastated human world, dehumanized, but with none the less at least a single survivor, someone to tell the story of what's left, write it down. Dehumanized still implies human – a dead human, but conceivable: because dead in human terms, still capable of being sublated in thought. But in what remains after the solar explosion, there won't be any humanness, there won't be living creatures, there won't be intelligent, sensitive, sentient earthlings to bear witness to it, since they and their earthly horizon will have been consumed.

Assume that the ground, Husserl's *Ur-Erde*, will vanish into clouds of heat and matter. Considered as matter, the earth isn't at all originary since it's subject to changes in its condition – changes from further away or closer, changes coming from matter and energy and from the laws governing Earth's transformation. The *Erde* is an arrangement of matter/energy. This arrangement is transitory – lasting a few billion years more or less. Lunar years. Not a long time considered on a cosmic scale. The sun, our earth and your thought will have been no more than a spasmodic state of energy, an instant of established order, a smile on the surface of matter in a remote corner of the cosmos. You, the unbelievers, you're really believers: you believe much too much in that smile, in the complicity of things and thought,

in the purposefulness of all things! Like everyone else, you will end up victims of the stabilized relationships of order in that remote corner. You'll have been seduced and deceived by what you call nature, by a congruence of mind and things. Claudel called this a '*co-naissance*', and Merleau-Ponty spoke of the chiasmus of the eye and the horizon, a fluid in which mind floats. The solar explosion, the mere thought of that explosion, should awaken you from this euphoria. Look here: you try to think of the event in its *quod*, in the advent of 'it so happens that' before any quiddity, don't you? Well, you'll grant the explosion of the sun is the *quod* itself, no subsequent assignment being possible. Of that death alone, Epicurus ought to have said what he says about death – that I have nothing to do with it, since if it's present, I'm not, and if I'm present, it's not. Human death is included in the life of human mind. Solar death implies an irreparably exclusive disjunction between death and thought: if there's death, then there's no thought. Negation without remainder. No self to make sense of it. Pure event. Disaster. All the events and disasters we're familiar with and try to think of will end up as no more than pale simulacra.

Now this event is ineluctable. So either you don't concern yourself with it – and remain in the life of the mind and in earthly phenomenality. Like Epicurus you say 'As long as it's not here, I am, and I continue philosophizing in the cozy lap of the complicity between man and nature.' But still with this glum afterthought: *après moi le déluge*. The deluge of matter. You'll grant there's a significant point of divergence between our thinking and the classical and modern thought of Western civilization: the obvious fact of there being no nature, but only the material monster of *D'Alembert's Dream*, the *chôra* of the *Timaeus*. Once we were considered able to converse with Nature. Matter asks no questions, expects no answers of us. It ignores us. It made us the way it made all bodies – by chance and according to its laws.

Or else you try to anticipate the disaster and fend it off with means belonging to that category – means that are those of the laws of the transformation of energy. You decide to accept the challenge of the extremely likely annihilation of a solar order and an order of your own thought. And then the

only job left you is quite clear – it's been underway for some time – the job of simulating conditions of life and thought to make thinking remain materially possible after the change in the condition of matter that's the disaster. This and this alone is what's at stake today in technical and scientific research in every field from dietetics, neurophysiology, genetics and tissue synthesis to particle physics, astrophysics, electronics, information science and nuclear physics. Whatever the immediate stakes might appear to be: health, war, production, communication. For the benefit of humankind, as the saying goes.

You know – technology wasn't invented by us humans. Rather the other way around. As anthropologists and biologists admit, even the simplest life forms, infusoria (tiny algae synthesized by light at the edges of tidepools a few million years ago) are already technical devices. Any material system is technological if it filters information useful to its survival, if it memorizes and processes that information and makes inferences based on the regulating effect of behaviour, that is, if it intervenes on and impacts its environment so as to assure its perpetuation at least. A human being isn't different in nature from an object of this type. Its equipment for absorbing data isn't exceptional compared to other living things. What's true is that this human being is omnivorous when dealing with information because it has a regulating system (codes and rules of processing) that's more differentiated and a storage capacity for its memory that's greater than those of other living things. Most of all: it's equipped with a symbolic system that's both arbitrary (in semantics and syntax), letting it be less dependent on an immediate environment, and also 'recursive' (Hofstadter), allowing it to take into account (above and beyond raw data) the way it has of processing such data. That is, itself. Hence, of processing as information its own rules in turn and of inferring other ways of processing information. A human, in short, is a living organization that is not only complex but, so to speak, replex. It can grasp itself as a medium (as in medicine) or as an organ (as in goal-directed activity) or as an object (as in thought – I mean aesthetic as well as speculative thought). It can even abstract itself from itself and take into account only its rules

of processing, as in logic and mathematics. The opposite limit of this symbolic recursiveness resides in the necessity by which it is bound (whatever its *meta*-level of operation) at the same time to maintain regulations that guarantee its survival in any environment whatsoever. Isn't that exactly what constitutes the basis of your transcendence in immanence? Now, until the present time, this environment has been terrestrial. The survival of a thinking-organization requires exchanges with that environment such that the human body can perpetuate itself there. This is equally true of the quintessential *meta*-function – philosophical thought. To think, at the very least you have to breathe, eat, etc. You are still under an obligation to 'earn a living'.

The body might be considered the hardware of the complex technical device that is human thought. If this body is not properly functioning, the ever so complex operations, the meta-regulations to the third or fourth power, the controlled deregulations of which you philosophers are so fond, are impossible. Your philosophy of the endless end, of immortal death, of interminable difference, of the undecidable, is an expression, perhaps the expression *par excellence*, of meta-regulation itself. It's as if it took itself into account as *meta*. Which is all well and good. But don't forget – this faculty of being able to change levels referentially derives solely from the symbolic and recursive power of language. Now language is simply the most complex form of the (living and dead) 'memories' that regulate all living things and make them technical objects better adjusted to their surroundings than mechanical ensembles. In other words your philosophy is possible only because the material ensemble called 'man' is endowed with very sophisticated software. But also, this software, human language, is dependent on the condition of the hardware. Now: the hardware will be consumed in the solar explosion taking philosophical thought with it (along with all other thought) as it goes up in flames.

So the problem of the technological sciences can be stated as: how to provide this software with a hardware that is independent of the conditions of life on earth. ☆

That is: how to make thought without a body possible. A thought that continues to exist after the death of the human

body. This is the price to be paid if the explosion is to be conceivable, if the death of the sun is to be a death like other deaths we know about. Thought without a body is the prerequisite for thinking of the death of all bodies, solar or terrestrial, and of the death of thoughts that are inseparable from those bodies.

But 'without a body' in this exact sense: without the complex living terrestrial organism known as the human body. Not without hardware, obviously.

So theoretically the solution is very simple: manufacture hardware capable of 'nurturing' software at least as complex (or replex) as the present-day human brain, but in non-terrestrial conditions. That clearly means finding for the 'body' envisaged a 'nutrient' that owes nothing to biochemical components synthesized on the surface of the earth through the use of solar energy. Or: learning to effect these syntheses in other places than on earth. In both cases then this means learning to manufacture a hardware capable of nourishing our software or its equivalent, but one maintained and supported only by sources of energy available in the cosmos generally.

It's clear even to a lay person like myself that the combined forces of nuclear physics, electronics, photonics and information science open up a possibility of constructing technical objects, with a capacity that's not just physical but also cognitive, which 'extract' (that is select, process and distribute) energies these objects need in order to function from forms generally found everywhere in the cosmos.

So much for the hardware. As for the software such machines are to be equipped with - that's a subject for research in the area of artificial intelligence and for the controversies surrounding such research. You philosophers, writers and artists are quick to dismiss the pathetic track record of today's software programs. True - thinking or 'representing' machines (Monique Linard's term) are weaklings compared to ordinary human brains, even untrained ones.

It can be objected that programmes fed into such computers are elementary and that progress can be expected in information science, artificial languages and communications

science. Which is likely. But the main objection concerns the very principle of these intelligences. This objection has been summed up in a line of thought proposed by Hubert L. Dreyfus. Our disappointment in these organs of 'bodiless thought' comes from the fact that they operate on binary logic, one imposed on us by Russell's and Whitehead's mathematical logic, Turing's machine, McCulloch's and Pitts's neuronal model, the cybernetics of Wiener and von Neumann, Boolean algebra and Shannon's information science.

But as Dreyfus argues, human thought doesn't think in a binary mode. It doesn't work with units of information (bits), but with intuitive, hypothetical configurations. It accepts imprecise, ambiguous data that don't seem to be selected according to preestablished codes or readability. It doesn't neglect side effects or marginal aspects of a situation. It isn't just focused, but lateral too. Human thought can distinguish the important from the unimportant without doing exhaustive inventories of data and without testing the importance of data with respect to the goal pursued by a series of trials and errors. As Husserl has shown, thought becomes aware of a 'horizon', aims at a 'noema', a kind of object, a sort of non-conceptual monogram that provides it with intuitive configurations and opens up 'in front of it' a field of orientation and expectation, a 'frame' (Minsky). And in such a framework, perhaps more like a scheme, it moves towards what it looks for by 'choosing', that is, by discarding and recombining the data it needs, but none the less without making use of preestablished criteria determining in advance what's appropriate to choose. This picture inevitably recalls the description Kant gave of a thought process he called reflective judgement: a mode of thought not guided by rules for determining data, but showing itself as possibly capable of developing such rules afterwards on the basis of results obtained 'reflexively'.

This description of a reflective thought opposed to determinate thought does not hide (in the work of Husserl or Dreyfus) what it owes to perceptual experience. A field of thought exists in the same way that there's a field of vision (or hearing): the mind orients itself in it just as the eye does in



the field of the visible. In France, this analogy was already central to Wallon's work, for example, and also to Merleau-Ponty's. It is 'well known'. None the less it has to be stressed this analogy isn't extrinsic, but intrinsic. In its procedures it doesn't only describe a thought analogous with an experience of perception. It describes a thought that proceeds analogically and only analogically – not logically. A thought in which therefore procedures of the type – 'just as . . . so likewise . . .' or 'as if . . . then' or again 'as  $p$  is to  $q$ , so  $r$  is to  $s$ ' are privileged compared to digital procedures of the type 'if . . . then . . .' and ' $p$  is not non- $p$ .' Now these are the paradoxical operations that constitute the experience of a body, of an 'actual' or phenomenological body in its space-time continuum of sensibility and perception. Which is why it's appropriate to take the body as model in the manufacture and programming of artificial intelligence if it's intended that artificial intelligence not be limited to the ability to reason logically.

It's obvious from this objection that what makes thought and the body inseparable isn't just that the latter is the indispensable hardware for the former, a material prerequisite of its existence. It's that each of them is analogous to the other in its relationship with its respective (sensible, symbolic) environment: the relationship being analogical in both cases. In this description there are convincing grounds for not supporting the hypothesis (once suggested by Hilary Putnam) of a principle of the 'separability' of intelligence, a principle through which he believed he could legitimate an attempt to create artificial intelligence.

### SHE

Now that's something to leave us satisfied as philosophers. At least something to assuage a part of our anxiety. A field of perception has limits, but these limits are always beyond reach. While a visual object is presenting one side to the eye, there are always other sides, still unseen. A direct, focused vision is always surrounded by a curved area where visibility is held in reserve yet isn't absent. This disjunction is

inclusive. And I'm not speaking of a memory brought into play by even the simplest sight. Continuing vision preserves along with it what was seen an instant before from another angle. It anticipates what will be seen shortly. These syntheses result in identifications of objects, identifications that never are completed, syntheses that a subsequent sighting can always unsettle or undo. And the eye, in this experience, is indeed always in search of a recognition, as the mind is of a complete description of an object it is trying to think of: without, however, a viewer ever being able to say he recognizes an object perfectly since the field of presentation is absolutely unique every time, and since when vision actually sees, it can't ever forget that there's always more to be seen once the object is 'identified'. Perceptual 'recognition' never satisfies the logical demand for complete description.

In any serious discussion of analogy it's this experience that is meant, this blur, this uncertainty, this faith in the inexhaustibility of the perceivable, and not just a mode of transfer of the data onto an inscription-surface not originally its own. Similarly, writing plunges into the field of phrases, moving forward by means of adumbrations, groping towards what it 'means' and never unaware, when it stops, that it's only suspending its exploration for a moment (a moment that might last a lifetime) and that there remains, beyond the writing that has stopped, an infinity of words, phrases and meanings in a latent state, held in abeyance, with as many things 'to be said' as at the beginning. Real 'analogy' requires a thinking or representing machine to be *in* its data *just as* the eye is in the visual field or writing is in language (in the broad sense). It isn't enough for these machines to simulate the results of vision or of writing fairly well. It's a matter (to use the attractively appropriate locution) of 'giving body' to the artificial thought of which they are capable. And it's that body, both 'natural' and artificial, that will have to be carried far from earth before its destruction if we want the thought that survives the solar explosion to be something more than a poor binarized ghost of what it was beforehand.

From this point of view we should indeed have grounds not to give up on techno-science. I have no idea whether such a 'programme' is achievable. Is it even consistent to claim to be

programming an experience that defies, if not programming, then at least the programme – as does the vision of the painter or writing? It's up to you to give it a try. After all, the problem's an urgent one for you. It's the problem of a comprehension of ordinary language by your machines. A problem you encounter especially in the area of terminal/user interface. In that interface subsists the contact of your artificial intelligence with the naive kind of intelligence borne by so-called 'natural' languages and immersed in them.

But another question bothers me. Is it really another question? Thinking and suffering overlap. Words, phrases in the act of writing, the latent nuances and timbres at the horizon of a painting or a musical composition as it's being created (you've said this yourselves) all lend themselves to us for the occasion and yet slip through our fingers. And even inscribed on a page or canvas, they 'say' something other than what we 'meant' because they're older than the present intent, overloaded with possibilities of meaning – that is, connected with other words, phrases, shades of meaning, timbres. By means of which precisely they constitute a field, a 'world', the 'brave' human world you were speaking about, but one that's probably more like an opaqueness of very distant horizons that exist only so that we'll 'brave' them. If you think you're describing thought when you describe a selecting and tabulating of data, you're silencing truth. Because data aren't given, but givable, and selection isn't choice. Thinking, like writing or painting, is almost no more than letting a givable come towards you. In the discussion we had last year at Siegen, in this regard, emphasis was put on the sort of emptiness that has to be obtained from mind and body by a Japanese warrior-artist when doing calligraphy, by an actor when acting: the kind of suspension of ordinary intentions of mind associated with *habitus*, or arrangements of the body. It's at this cost, said Glenn and Andreas (and you can imagine how quickly I agreed, helped out by Dôgen, Diderot and Kleist), that a brush encounters the 'right' shapes, that a voice and a theatrical gesture are endowed with the 'right' tone and look. This soliciting of emptiness, this evacuation – very much the opposite of overweening, selective, identificatory activity – doesn't take place without some suffering. I won't

claim that the grace Kleist talked about (a grace of stroke, tone or volume) has to be merited: that would be presumptuous of me. But it has to be called forth, evoked. The body and the mind have to be free of burdens for grace to touch us. That doesn't happen without suffering. An enjoyment of what we possessed is now lost.

Here again, you will note, there's a necessity for physical experience and a recourse to exemplary cases of bodily asceticism to understand and make understood a type of emptying of the mind, an emptying that is required if the mind is to think. This obviously has nothing to do with *tabula rasa*, with what Descartes (vainly) wanted to be a starting from scratch on the part of knowing thought – a starting that paradoxically can only be a starting all over again. In what we call thinking the mind isn't 'directed' but suspended. You don't give it rules. You teach it to receive. You don't clear the ground to build unobstructed: you make a little clearing where the penumbra of an almost-given will be able to enter and modify its contour. An example of this work is found *mutatis mutandis* in Freudian *Durcharbeitung*. In which – though I won't labour the point – the pain and the cost of the work of thought can be seen. This kind of thinking has little to do with combining symbols in accordance with a set of rules. Even though the act of combining, as it seeks out and waits for its rule, can have quite a lot to do with thought.

The pain of thinking isn't a symptom coming from outside to inscribe itself on the mind instead of in its true place. It is thought itself resolving to be irresolute, deciding to be patient, wanting not to want, wanting, precisely, not to produce a meaning in place of what *must* be signified. This is a tip of the hat to a *duty* that hasn't yet been named. Maybe that duty isn't a debt. Maybe it's just the mode according to which what doesn't yet exist, a word, a phrase, a colour, *will emerge*. So that the suffering of thinking is a suffering of time, of what happens. To sum up – will your thinking-, your representing-machines suffer? What will be their future if they are just memories? You will tell me this scarcely matters if at least they can 'achieve' the paradoxical relationship to the said 'data', which are only quasi-givens, givables, which I've just described. But this is a hardly credible proposition.

If this suffering is the mark of true thought, it's because we think in the already-thought, in the inscribed. And because it's difficult to leave something hanging in abeyance or take it up again in a different way so what hasn't been thought yet can emerge and what *should be* inscribed *will be*. I'm not speaking just about words lacking in a superabundance of available words, but about ways of assembling these words, ways we should accept despite the articulations inspired in us by logic, by the syntax of our languages, by constructions inherited from our reading. (To Sepp Gumbrecht, who was surprised that any and all thought, according to me, should require and involve inscription, I say: we think in a world of inscriptions already there. Call this culture if you like. And if we think, this is because there's still something missing in this plenitude and room has to be made for this lack by making the mind a blank, which allows the something else remaining to be thought to happen. But this can only 'emerge' as already inscribed in its turn.) The unthought hurts because we're comfortable in what's already thought. And thinking, which is accepting this discomfort, is also, to put it bluntly, an attempt to have done with it. That's the hope sustaining all writing (painting, etc.): that at the end, things will be better. As there is no end, this hope is illusory. So: the unthought would have to make your machines uncomfortable, the uninscribed that remains to be inscribed would have to make their memory suffer. Do you see what I mean? Otherwise why would they ever *start* thinking? We need machines that suffer from the burden of their memory. (But suffering doesn't have a good reputation in the technological megalopolis. Especially the suffering of thinking. It doesn't even incite laughter anymore. The idea of it doesn't occur, that's all. There's a trend towards 'play', if not performance.)

Finally, the human body has a gender. It's an accepted proposition that sexual difference is a paradigm of an incompleteness of not just bodies, but minds too. Of course there's masculinity in women as well as femininity in men. Otherwise how would one gender even have an idea of the other or have an emotion that comes from what's lacking? It's lacking because it's present deep inside, in the body, in the mind. Present like a guard, restrained, off to the side, at the

edge of your vision, present on some horizon of it. Elusive, impossible to grasp. Again we're back at transcendence in immanence. The notion of gender dominant in contemporary society wants this gap closed, this transcendence toppled, this powerlessness overcome. Supposed 'partners' (in a pleasure arrangement) draw up a contract for purposes of common 'enjoyment' of sexual difference itself. The contract provides that neither party suffer from this association and that at the first sign of lack (whether through failure to perform or not), of defocalization, of lack of control and transcendence, the parties break the contract – though that's still too strong a phrase, they'll just let it lapse. And even if from time to time fashion gives 'love' its place back among the inventory of objects that circulate, it's as a 'top of the line' sexual relationship, reserved for superstars and advertised as an enviable exception. I see in this arrangement a sign that techno-science conditions thought to neglect the different it carries within.

I don't know whether sexual difference is ontological difference. How would a person *know*? My unassuming phenomenological description still doesn't go far enough. Sexual difference isn't just related to a body as it feels its incompleteness, but to an unconscious body or to the unconscious as body. That is, as separated from thought – even analogical thought. This difference is *ex hypothesi* outside our control. Maybe (because as Freud showed in his description of deferred action, it inscribes effects without the inscription being 'memorized' in the form of recollection) it's the other way around? And this difference is what initially sets up fields of perception and thought as functions of waiting, of equivocations, as I've stated? This quite probably defines suffering in perceiving and conceiving as produced by an impossibility of unifying and completely determining the object seen. To that which without gendered difference would only be a neutral experience of the space-time of perceptions and thoughts, an experience in which this feeling of incompleteness would be lacking as unhappiness, but only an experience producing a simple and pure cognitive aesthetic, to this neutrality gendered difference adds the suffering of abandonment because it brings to neutrality what no field of

vision or thought can include, namely a demand. The faculty to transcend the given that you were talking about, a faculty lodged in immanence indeed finds a means to do this in the recursiveness of human language – although such a capacity isn't just a possibility but an actual force. And that force is desire.

So: the intelligence you're preparing to survive the solar explosion will have to carry that force within it on its interstellar voyage. Your thinking machines will have to be nourished not just on radiation but on the irremediable differend of gender.

And here is where the issue of complexity has to be brought up again. I'm granting to physics theory that technological-scientific development is, on the surface of the earth, the present-day form of a process of negentropy or complexification that has been underway since the earth began its existence. I'm granting that human beings aren't and never have been the motor of this complexification, but an effect and carrier of this negentropy, its continuer. I'm granting that the disembodied intelligence that everything here conspires to create will make it possible to meet the challenge to that process of complexification posed by an entropic tidal wave which from that standpoint equates with the solar explosion to come. I agree that with the cosmic exile of this intelligence a locus of high complexity – a centre of negentropy – will have escaped its most probable outcome, a fate promised any isolated system by Carnot's second law – precisely because this intelligence won't have let itself be left isolated in its terrestrial-solar condition. In granting all this, I concede that it isn't any human desire to know or transform reality that propels this techno-science, but a cosmic circumstance. But note that the complexity of that intelligence exceeds that of the most sophisticated logical systems, since it's another type of thing entirely. As a material ensemble, the human body hinders the separability of this intelligence, hinders its exile and therefore survival. But at the same time the body, our phenomenological, mortal, perceiving body is the only available *analogon* for thinking a certain complexity of thought.

Thought makes lavish use of analogy. It does this in scientific discovery too of course 'before' its operativity is

fixed in paradigms. On the other hand its analogizing power can also return, bringing into play the spontaneous analogical field of the perceiving body, educating Cézanne's eye, Debussy's ear, to see and hear givables, nuances, timbres that are 'useless' for survival, even cultural survival.

But once again that analogizing power, which belongs to body and mind analogically and mutually and which body and mind share with each other in the art of invention, is inconsequential compared to an irreparable transcendence inscribed on the body by gender difference. Not only calculation, but even analogy cannot do away with the remainder left by this difference. This difference makes thought go on endlessly and won't allow itself to be thought. Thought is inseparable from the phenomenological body: although gendered body is separated from thought, and launches thought. I'm tempted to see in this difference a primordial explosion, a challenge to thought that's comparable to the solar catastrophe. But such is not the case, since this difference causes infinite thought – held as it is in reserve in the secrecy of bodies and thoughts. It annihilates only the One. You have to prepare post-solar thought for the inevitability and complexity of this separation. Or the pilot at the helm of spaceship *Exodus* will still be entropy.