Vilém Flusser.

The surprising phenomenon of human communication.

Contrary to the expression "zoon politikón" man is not fundamentally a social being. He is, in fact, the most solitary of all the animals, even more so than the eagle high up in the sky or the octopus deep down in the abysses of the ocean. He is the most solitary of all the animals, even if he lives amidst the demographic explosion which is about to transform humanity into a sort of mobile moss to cover the continents; and he is the most solitary of all the animals, even if he is in love. (which is the most powerful of all communications). The fundamental reason for his solitude is his knowledge of his death, of the fact that he is irrevokably walking toward a situation which he will have to face alone, for himself, and in which society, with all its artifices called "culture", will become useless and worthless. This total solitude in death is, in man, an ever present knowledge, and it accompanies, sotto voce, his every moment. Infact: it may be held, (and it was held by some of the Ancients), that it is this knowledge of fundamental solitude in death which distinguishes man from all the other animals, and should therefore form the basis for all anthropological research. Now the phenomenon of human communication, of the fact that men exchange information and store it collectively to an extend far in excess to what even the social insects are capable of, should be seen against this background. The most solitary of animals is committed to the most intense, and also most extensive communication. This course of lectures will try to consider some of the aspects of this marvellous, miraculous, or, to put it molestly, surprising dialectical contradiction.

But the fact that men do communicate with each other is surprising not only from an existential viewpoint. If we come to consider communication formally, if we ask ourselves what happens when we communicate something to somebody somehow, we might find that we are asking a question which admits no satisfactory answer. What I mean, of course, is not that we are unable to describe carefully what happens during communication, nor that we cannot explain the process of communication on numerous levels. Most, if not all, humanist disciplines are concerned with just such descriptions and explanations, and the theory of communication is an attempt at generalisation, formalisation and quantification of those descriptions and explanations. What I mean is the very simple and very brutal fact that there is no possible form of communicating concrete experience to others. Concrete experience is essentially private. It is my experience, it happens to me here and now, and it is unique in the sense of being irreversible, irrevokable and incapable of repetition. It is easy to show formally that it cannot be communicated. Every communication involves some intersubjective convention, some code agreed upon by those who participate in it. And every intersubjective convention, even the most

apparently obvious one like pointing with one's finger, is "public" in the sense of being general, reversible, revokable, and capable of repetition. It thus necessarily falsifies the concrete experience it is to communicate. Thus, speaking strictly and formally, concrete experience cannot be communicated, and speaking loosely, it can be communicated in a dilluted and dubious way only. But if this is so, if the publication of private experience is strictly impossible even through such intense communication like love, or such dense communication like art, or such clear and refined communication like science, (let alone such diffuse and disorderly communication like common spoken language and the language of gestures), it must be asked what communication is all about. Because, if it is not about the concrete experience, at least in the last analysis, it is about nothing. The very simple and brutal fact that concrete experience cannot be communicated tends to be forgotten in the face of the surprising phenomenon of human communication. Because, as a matter of course, and paradoxically, most of our concrete experiences happen within, and through, and thanks to human communication.

Now it is of course common sense that not everything can be communicated, and that in our effort to share our experience with others we are frustrated. To speak with Wittgenstein, who suffered this limitation of communication more than most, and who thought about it deeper than most: all of us constantly throuw ourselves against the barriers of language, and history is the collection of wounds we thus suffer. But this rebellion of ours against the limitations of communication, (which is perhaps identical with our rebellion against human condition), may take various forms. In philosophy it poses the problem of the possibility of objective knowledge, not necessarily in the Kantian sense only, but also in the positivistic sense of the problem of observational and theoretical statements. In the arts it leads to the effort to invent new means to communicate experiences not articulated so far, to say what has not yet been said, to utter the inephable. And in religious thought it may lead to mystical silence. If the concrete experience cannot be communicated, then nothing worth while can be communicated outside that mute and silent "unio mystica" and it is in this great sea of silence into which all the rivers of communication must needs deposit their turbulent waters.

But even if the limitations of communication may lead to philosophical skepsis, to artistic frustration and to mystical silence, still what is surprising about communication is not that it is limited, but that it is so incredibly rich inspite of its limitations. Inspite of the fact that we are fundamentally alone and that no communication can change this, and inspite of the fact thatwe cannot communicate what is most concrete and thus most important, we are, all of us, profoundly committed to communi-

cation, and this commitment of ours is what gives our lives a meaning. We are committed to communication inspite of what may be called our "nature" as mortals, and inspite of what may be called the "nature" of communication. Our commitment to communication is anti-natural in various senses of the term. It is anti-natural, because communication is society, and society is not natural to the human animal: it is that situation which causes neuroses and psychoses. It is anti-natural, because communication is culture, and culture is anti-nature, since it changes it and fights against it. It is anti-natural, because communication is history, and history is a negation of natural determination, since it is a quest for freedom. But most of all our commitment to communication is anti-natural, because the process of human communication is opposed in its very tendency to the process of nature. Nature as a whole is a process which tends towards entropy, towards progressive loss of information and ever greater chaos. Human communication as a whole tends towards progressive increase of information, towards increasingly complex organisation. Nature is a process which tends to become ever more "probable" and therefore ever more foreseeable, and human communication is a process which tends to become ever less "probable" and therefore ever more surprising. This is why it is so incredibly rich inspite of its natural limitations. And this surprising antinatural character of human communication and of our commitment to it suggests thatthe term "communication" is very closely related to the term "spirit", and that the theory of communication might one day become a general theory of what the Germans call ever since Dilthey "Geisteswissenschaften", (sciences of the spirit). Which explains, by the way, my interest in it.

But although our commitment to communication goes against nature in many senses of that term, it is, in a different sense, the most natural of all human commitments. So natural is it in this sense, that we may almost speak of an "instinct". It is almost impossible to repress our urge to express ourselves toward others, and also our urge to open ourselves up to the expressions of others. To become "emittors" and "receivers". This almost irrepressible drive of ours to participate actively and passively in communication, in society, in culture, in history, in the increase of information has been called, in some contexts, our "social instinct". Aside from the fact that the word "instinct" is of little help to explain anything, it is important to bear in mind that our "social instinct" is, quite unlike the instinct of truly social animals, an anti-natural drive, and that our communication, quite unlike the communication of social animals, is an artificial process. This contradiction may be condensed by saying that man is, by his very nature, and anti-natural being, and that this fact becomes phenomenal in the surprising form of human communication.

I said above that human communication is a process which increases

information, as opposed to what may be called the process of nature. That was a loose and provisional statement, and we shall go into it more carefully in the course of these lectures. There are, of course, processes in nature which tend from the simple toward the complex, and the whole realm of biology is an example. And, on the other hand, there is, of course, in human communication that very curious phenomenon of forgetting, of loosing information. But although the negatively entropic development from the protozoa toward the mammals is impressive, it may be considered to be an epicycle on the general tendency of nature toward dis-information. And although in the course of human communication whole civilisations might have been forgotten there is no doubt that to communicate is, as a whole, to accumulate information. What is however so surprising about human communication is not the evident fact that it stores information against time, that it "memorizes" in individuals and collectively, but that it produces new information. Not, in other words. that it conserves information from entropy, but that it "informs", namely impresses new forms upon the world. That it is deliberately, artificially, "creative". Now let us not delve into the question of where the new forms come from, or we shall get lost in metaphysical speculations. Let it suffice to say, at this point, that our almost irrepressible drive to participate in communication has to do with this creative aspect of it.

The general tendency of nature is toward entropy, toward the static equilibrium of chaos. Toward what has been called "thermic death". The general tendency of human communication is toward complexity, toward ever new information. It is a tendency which opposes death. And it opposes death not only in this somewhat abstract sense of opposing the second principle of thermodynamics. It does so, much more significantly, on an existential level. He who participates in communication participates in the process of creating new forms. And to the extend to which he participates in it, he becomes immortal, because forms are what may be called "eternal". Although we shall all die, and shall die alone, by ourselves, and although no amount of communication can change this, still we shall not die altogether. To the extend to which we have participated in the creative process of communication, we shall somehow live on within it. We shall be preserved in the individual and collective memories to the extend to which we have contributed new forms to it. Which is a way of saying that, inspite of our death, we shall somehow live on within the others. And I believe that this is the true motive of our commitment to communication: to become immortal within the others. Because the fact is this: we know that we shall die, but we cannot, and indeed must not, accept this knowledge. Our rebellion against death, (which is our rebellion against the human condition), has always taken, is taking, and will probably always take the form, the incredibly surprising form, of human communication.

II. Vilém Flusser.

From information to decision.

In the wider sense communication is any process through which two or more systems are connected. The classical example for such a process in physics are the socalled "communicating vessels". In the sense here intended communication is the process by which two or more persons exchange information. The sense here intended is a special case of the wider sense, and it has very special aspects. Human communication is a very special kind of communication. For the purpose here intended, and for reasons that will become obvious as this lecture proceeds, I shall use the word "memory" to describe the systems, (persons), which are connected in the process of human communication. And I shall define "memory" as any system which stores information. Thus, for the duration of this lecture, men shall be information stores, just like libraries, museums and computers, and society shall be a net which connects such memories through wires to be called "channels".

One way to visualize a memory is to cut a tree trunk and look at the section. One may see concentric rings, various irregular traces in the wood and patches of various colors. Those forms one sees may be interpreted by those who have a theory of tree trunks. The rings may come to mean years, some traces worms, some patches rain, and so forth. Thus the forms are "information", in the sense of having been impressed upon the trunk, "in-formed". The trunk is a memory which stores information. For the observer the information contained in the trunk is "present", in the sense that all the rings, patches and so forth are simultaneously available to him. They are "synchronic". But they were impressed upon the trunk in the course of a time that may have lasted for centuries, and each of the forms may have been impressed in a different moment. The trunk was informed in a "diachronical" process. Thus the trunk as a memory synchronizes diachronical information. It preserves, "cancels" time for the observer, by presenting information from various pasts on the same level. Memory is a "time can". Now the information thus stored in the trunk against time is organized somehow, in the sense that it is impressed upon tree organism. The tree is the "structure" of the memory we observe when looking at a trunk section. Thus memory stores information against time in specific structures. Trees are one type of memory structure, libraries are another type, and what is called "the mind" is yet another. Society is a net which connects memories of different structures.

Memories are systems of the "game" type. The information stored in them may be considered to be the "repertoire" of a game, in the sense in which chessmen are the repertoire of the chess game. And the structure in which they are being stored may be considered to be a "game structure", in the sense in which the chess rules which organize the motions of chessmen is the structure of the chess game. If one considers memories thus, one may apply the theory of games to them. One may thus quantify them. Every

given memory stores, at a given moment, a specific amount of information. And it does so according to a number of rules specific to it. The sum of combinations possible of a given repertoire upon a given structure of a given memory may be called its "competence", in the sense in which the chess game is competent for a specific number of moves of chessmen according to the chess rules. Thus it becomes possible to compare between memories of quite different types and say, for instance, that tree trunks are less competent memories than are those of computers. And computer memories less competent than even the least competent memories of humans.

There are two types of games: the open ones and the closed ones. A game is said to be closed, if any change of the repertoire requires a change in structure. Chess is an example. If you introduce a new chessman, for instance a camel between the rook and the knight, you will have to change the rules of the game, and thus have a new game. Chess is a closed game, because its competence, although great, is statically given. And a game is said to be open to the extend to which it can increase its repertoire, ("absorb new information"), without having to change its structure. French is an example. If you introduce a new word into that game, you will not have to change necessarily its structure, namely French grammar. French is a relatively open game, because its competence may be increased by introducing new repertoire, ("information"), into it. Memories are games of the open type, and communication is that process by which the competence of memories increases. Society is a net which connects open games called "memories" and thus increases their competence. Of course, society itself may be considered to be an open game on a different order of size.

Closed games cannot communicate with each other. There is no communication between chess and football. Open games may communciate with each other to the extend to which they are open. French and arithmetics may communicate to the extend to which those two games are open. But there are formal limits to the possibility of communication. I shall mention one limit at this point. In order to communicate, the two games must have repertoires which coincide at least in part. If no element of the repertoire is found in both games, there is no communication, because no "channel" may be established between them, and the "channel" consists of elements which both games have in common. The "strategy" of communication as a connection between games is to establish channels, namely those elements which the repertoires of various games have in common. Society is a net the wires of which consists of elements which the repertoires of a number of memories have in common. This is sometimes called "common reason" or "consensus".

The more the repertoires of two memories coincide, the easier they communicate with each other. And if they coincide totally, they communicate perfectly. In this limit case however their competences remain unchanged by communication. Every information exchanged was already stored

in both memories before communication. It is "redundant". The less the repertoires of two memories coincide, the more difficult is communication between them. But the more it increases the competence of both of them, because the communication will supply them with new information. With "noise". Communication between identical repertoires is totally redundant, and between totally different repertoires is impossible, because totally noisy. Thus communication and information are inverse: the better one communicates the less one informs, and the more one informs the more difficult is communication. The strategy of communication is to find an optimum: a maximum of information within a minimum of redundance necessary for communication. It increases my competence more if I talk with Chinese Red Gards than if I talk with you, but it is more agreeable to talk with you, it takes less effort. The strategy of communication consist in finding a method of communicating with Chinese Red Gards more easily, and with you more informatively, (which is what I am trying to do at this moment).

Human memories are open games of a complex order. They store various types of information on various types of structures. Various competences are thus present within them, which makes it so difficult to compare between them. One may be more competent in the game of chess, and another more competent in the game of French. One more competent in the game of love, another more competent in the game of commerce. And since the various competences stored in the human memories are open games, they overlap and penetrate into each other. Now this is a formalistic aspect of what is called "freedom of decision". From the point of view of the theory of games, the word "decision" has two meanings. One is the possibility to apply, within a given competence, one combination of moves rather than another. It may be called the decision to apply a specific strategy within a game. The other is the possibility to apply various competences to the same situation. It may be called the decision to use various games in problem-solving. It is this second sense which comes nearer to what is called "existential decision" in a different context. Communication is a process which increases specific competences within a memory. By increasing various competences, it increases the parameter of decision, in both its senses. In the first sense it makes decision easier, because it enriches the competence in a given game. In the second, the quase-existential sense, it makes decision harder, because the choice of available competences becomes wider. This is an aspect of freedom, and I shall not go into it, because the formalistic approach of this lecture does not seem appropriate to it, merely suggestive.

You will have gained the impression, I am affraid, that this course of lectures will be theoretical in a bad sense, namely formally barren. When I talk about memory, for instance, I seem to be talking about computers, not about human beings. Please have patience. I know just as

much as you do about the numberous connotations of the word "memory", and that some of those connotations have to do with what is most sacred in our Western tradition. It was as much for those connotations as it was for the cybernetical sense of the word that I chose it to describe man in communication. Let me conclude this lecture by evoking some of those connotations

In the Orphic tradition, which is one of the roots of Platonic philosophy, memory is the very nucleus of Man by which he is connected with Heaven, his true homeland. The waters of Forgetfulness, (lethe), have covered up the Eternal Ideas which Man contemplated in Heaven before being born, but those Ideas are still in his Memory, and may be uncovered through Socratic dialectics, and Man can see Truth again, (a-letheia). In the Jewish tradition, which is at the roots of Christianity, memory is that place where the dead live, and if one speaks of a deceased person, one adds to his name the words "let his memory be a grace". Those two traditions, the Orphic and the Jewish one, are the two main threads that interweave in Western thought, and their dialectical contradictions propell our civilisation. Thus the contradictory concepts of memory unfold an ever deeper and wider field of meaning and have resulted, at present, in a number of very different disciplins which have memory for a subject. In Biology "memory" has the meaning of genetic information and of conditioned reflex. In Psychology it has the meaning of the Unconscious and of the available information. In History it has the meaning of pre-historical remains and of available documentation. In Ethnology it has the meaning of myth and of recorded tradition. All these and other meanings of the word "memory" were meant in this lecture, and not only the cybernetical, computer meaning which was the one more expressly elaborated during the lecture.

To dig into memory, to uncover what has been covered, may be called an "archeological" endeavor in a wide sense. It is to advance in the opposit direction of the diachronical process. And such an advance is made possible thanks to the synchronizing, storing character of memory, thanks to its negatively entropic aspect. What this lecture intended to show was the role which communication plays in this negentropic process. By informing memories it renders them ever more competent, and thus ever more apt to make decisions. And in this context it is now possible to speak of freedom. If we keep in mind what the word "memory" implies, we may say that communication is that process which liberates us from the flux of time by making us ever more competent for decisions against time.

III. Vilém Flusser

Communication media.

The world we find ourselves in is composed of objects, which means obstacles which stand in our way, ("ob-iectum"=thrown against). But there is a curious dialectics to objects, if one considers them from the point of view of communication. To be sure: they stand between ourselves and those we want to reach, and therefore they obstruct communication. The more objects we accumulate, the lonelier we are, because they fence us in. On the other hand, however, any object whatsoever may become a means to reach the other person, a medium for communication. The walls of prison cells are meant to be, and are in fact, objects which isolate those who find themselves between them. But if one taps a codified message against them, they become the communication media of prisons. (Which shows, of course, that the medium is not the message.) The other side of the dialectics is that objects meant to be media may obstruct communication. The TV box stands as an obstacle between family members. Thus the field of research in which communicologists work should include all the objects. In fact, however, their interest has so far been absorbed by those objects which are meant to be media by those who own them and those who manipulate them. TV, the press, posters and so forth. Unwittingly they have become servants to the establishment which manipulates society by manipulating ever more efficiently the obvious and not so obvious media of communication. In this course I shall try to avoid this trap by assuming a somewhat phenomenological atitude with regard to media. Thus I shall not begin by classifying them with the usual criteria, into visual, auditive and audio-visual ones, or into mas media and élitistic ones, but I shall begin by looking at their structure.

In my last talk I defined memories to be places which store information according to structures, and I defined structure to be the set of rules which orders the elements of a system. Media are channels between memories, and may be considered thus to be pseudopodia which memories extend to each other. Like memories, they are structured information. The prison wall, if tapped upon, becomes an extension of the prisoner's memory and acquires the structure of one of his competences. Of course: it has it own, objective, structure, that of stones which were ordered somehow. And that structure will interfere with the one tapped against it. The message received will be structured by the result of this interference. (Which is the reason why Mcluhan said that the medium is the message.) Still: the objective wall structure is the obstacle, and the subjective memory structu the communicative aspect of the message. We will have to go much more carefully into this problem in the course of these lectures. Here it must suffice to say that media are structured, and that it is possible to classify them in accordance with their structures. And classify them we must, if we are to find our way through their labyrinthical forest.

There is no theoretical limit to possible information structures, to the way informations may be ordered. Which is of course a challenge to artists and all those who are committed to communication. But in fact we may distinguish between only three basic structures: the one that orders information in lines, the ine that orders it in surfaces, and the one that orders it in bodies. Examples for the first type are spoken language, alphabetically written language, and music. Examples for the second type are maps, pictographically written language, and painting. Examples of the third type are dance, three-dimensional models of molecules, and sculpture. This is of course only a very rough description. Spoken language and music orders sour in lines, and sounds are themselves "bodies", (three-dimensional vibrations) and alphabetical writing orders letters in lines, which are themselves two-dimensional figures. The dance orders gestures in space, but it does so within the dimension of time, whereas sculpture orders bodies in space in a way that defies time, and is meant to defy it. Still: as a first approach the three basic structure types may serve as a means for orientation.

The important difference between the three types is in the attitude they demand of the receiver of their message. Linear media require of the receiver that he follow the line to get the message. This may be called the attitude of "reading". Surface media require of the receiver that he analyze the surface to get the message. This may be called the attitude of "imagination". Body media require of the receiver that he walk around them and enter them, (at least mentally), to get the message. This may be called the attitude of "participation". Now of course the matter is far more complicated than is here suggested. Not only because the three basic structures may be interwoven. The theatre, for instance, is a medium which combines the linear structure of language and music with the body structure of dance, and thus requires both reading and participation, and the cinema is a medium which lifts the surface structure of paintings onto the linear structure of the unwinding film tape, and thus requires both imagination and reading. The matter is far more complicated for a number of more subtle reasons also, and those reasons have to do with what might be called the "quality" of the message. Because from a merely quantitative point of view, three-dimensional media are of course enormously richer than are linear ones, because their structure permits the ordering of a far greater amount of information. Gesturing with one's body would thus seem to be a far better medium of communication than is alphabetical writing, and those who now prefer it, (like the hippies), may seem to have made the correct decision. And those who dedicate their lives to music would seem silly. Participation would indeed be superior to imagination, and imagination to reading. This is not necessarily true, and we shall discuss the reasons why in the course of these lectures.

The importance of the difference between the three attitudes mentioned ca not be exaggerated. As it is a difference in our receiving messages, (and o course also in our emitting them), it is a basic difference in our living. We either read the world, or imagine it, or participate in it. (Although of course "reality", which consists of incommunicable experiences, is neither read, nor imagined, nor participated in, but experienced.) Obviously all of us sometimes read, sometimes imagine and sometimes participate, and we combine these three attitudes and jump from one to the other without always being conscious of it. Still: one of the three attitudes always prevails over the other two in a given society, because in every society specific media dominate over others. Thus for instance Far Eastern society is dominated by surface media like painting, calligraphical art and ideographical writing, (which is structurally identical with pictographical writing),and the basic attitude of this society is imagination. African society is dominated by body media like dance, masks and sculpture, and its basic attitude is participation. And Western society is dominated by linear media like the alphabeth and mathematical notation, (which resulted in historical action and in science), and like music, (which is the most noble contribution of the West to human communication), and its basic attitude is reading. But this is now changing. Surface media like TV, the cinema, posters, illustrated magazines and shop windows become ever more important, and challenge the dominance of of the traditional linear media, and there are those new cybernetical media like computers which have a point-like and very badly understood structure. Thus our basic attitude is changing from one of reading into one of a very problematic imagination, and this is an important aspect of what is being called "the crisis of Western civilisation". In fact, this, and not the more obvious aspects, is the true meaning of the term "revolution in communication". Not that our media are becoming ever more widely branched out, ever more efficient, and ever more cosmopolitan is the revolutionary event, but that they do not have our traditional, linear, historical, scientific, structure. Which should pose a problem for Marxists. The infra-structure of society, and therefore of human life, is shown to be, by that revolution, not of an economical, but of a communicological nature. In fact, life is changing in the Soviet Union more or less in the same way it does in America, because both societies are in the grip of the same revolution in communication, and because that revolution seems to leave the other one, the economic and political revolution in Russia, in somewhat of a shadow. No doubt there is an economical, political and social explanation to the revolution in communications, as there is a technological explanation to it. Still: the impact of the revolution shows that it is fundamental, and it suggests that the infra-structure of society is the structure of communication. I shall leave the matter at that.

I said at the beginning of this talk that any object in our surroundings may serve as a medium for communication. The problem of the dominance of a specific medium structure in a given society, and of our present communication crisis, must be seen in that context. Every society tends to codify the world predominantly according to one of the three basic structures, and every object, including the very bodies of men, thus becomes a carrier of a specifically structured message. As long as the linear medium structure prevailed in Western civilisation, every single object of the world carried a linear message, "told a story". The world was a book to be read, "natura libellum", or a kind of symphony, "the harmony of the spheres", or a progressive curve which could be projected into the future. Every single object, this pipe or yonder that mountain, could be decodified within the linear structure, was a sort of letter, or cypher of the "history of the codified world". And science was one of the methods for the decodification of the world. In pre-Socratic Greece a different basic structure codified the world. It was than a "kosmós", (a sort of cosmetic article), and every single object had to be decodified according to a three-dimensional structure, such as is the structure of bodies like jewels, (which is the meaning of the word "kosmós"). At present we are about to re-codify the world. We still read the objects around us, but they also carry a differently structured message, which can no longer be seized through reading. The new medium structure requires a new attitude toward the world from us, one of imagination. The world and its objects is no longer a text, but a set of relations or functions, like a map or a painting. "Historical" decodification is no longer adequate to this newly codified world. Post-history is beginning.

Every single object around us is a virtual medium of communication, because the world is within us, just as much as we are within it. Thus the world and its objects, including ourselves, has, to some extend, the structure we impose on it, which is our memory structure. Therefore the question whether the mathematical structure, (characteristic of linear codes), is in the world or imposed on it by us is not a good question. For societies with predominantly linear codes mathematics is indeed the structure of the world, but not for others. Now this is the reason why I have not considered, in this lecture, the usual division of media into visual, auditive, tactile, olphatic ones, or into temporal and spacial ones, nor into those of the élite and those of the masses. These distinctions are no doubt very important, and will be considered later in this course of lectures. More important, it seems to me, is their structural classification. It may be felt, I believe, in every single object, be it visual, auditive or tactile. But this of course poses the question of codification, which shall be the subject of our next lecture.

Symbols and their meanings.

The question of convention, of agreement, of common sense and so forth was central during Enlightenment, and Rousseau is an example of the way it was raised. The idea was that men are superficially different, but that a common denominator, namely reason, could be found in each of them, and that this common denominator was the place where conventions between all men can be established. To state this idea in the terminology of these lectures: a redundency exists between the repertoires and structures of all human memories, and this redundency permits communication between all men. But if we reformulate the idea in these terms, it changes its impact. No longer is it reason alone, namely that human competence structured by logic, which is the ground for convention, and no longer is it the "raison d'État" or the categories of theoretical reason alone which permit communication, but now any competence whatsoever may fulfill that purpose. In fact: human communication goes on on the multiple levels on which the various competences overlap, and reasonable conventions are only one, and possibly not the most important one, of those levels. Which means that we are no longer enlightened. We no longer believe that men are complicated on the surface, but reasonably "clear and distinct" at bottom. We tend to believe, on the contrary, that what is clear and distinct about men is their surface, and that the deeper we delve into man, the more he gets complicated. This is why we can no longer explain very well how conventions happen, how codes are established.

No doubt: some of our codes have been established the way Rousseau imagined: around a round table in a sort of legislative convention. The Morse code, diplomatic codes, and to some extend ever the alphabetical code, are examples. Somebody proposed: "let "..." mean "S"", and everybody agree through some kind of implicit voting. But most of our codes were not established in such manner. Take the code of the French language, for instance. No one person ever suggested that the word "tête" should mean what "caput" means in Latin, although somewhere somebody must have proposed this somehow, and this proposition must have carried the day at some time somehow. Other French words, of course, like "psycho-analyse", were indeed proposed and accepted more or less like Rousseau wanted. Or take Byzantine painting. No one person ever suggested that a background of gold should mean "transcedence", although of course somebody somewhere must have begun that convention, and somehow that convention must have been abandoned at soem time. Or take the codes of dreams through which the unconscious communicates with the conscious. It seems absurd to say that somebody proposed sharp pointed objects dreamt to mean "phallus", and still there must be a kind of convention. If not, how could psychologists read dreams?

The matter becomes even more complicated if we consider that every code demands some previous codes to be established, were it only because

the convention itself must have been a codified message. The proposition "let "..." mean "S"", is codified, not in Morse, but in English, the hypothetical proposition "let "tête" mean "caput"", is codified probably neither in French nor in Latin, but in Frankish, and the code of dreams must be based on some even more basic one, which again must be based on some genetic code, and so forth. Such consideration leads us into the abyss of "reductio ad infinitum", and I believe this is what Eco means when speaking of "struttura assente". Again: codes interfere with each other, because the various competences within memory interfere with each other. The Greek language interferes in the code of Byzantine painting, and so does the code of Christian ideology, of Roman law, of dreams and so forth, and the code of Byzantine painting itself interferes in numerous others. We are no longer enlightened and must confess that the human capacity for codification is mysterious, and not only because it is so tremendously complex.

Codes are systems which order elements according to rules in such a way that the elements come to represent some other objects, and the rules come to represent some relations between other objects. The Morse code is a system which orders electrical impulses to represent letters of the alphabet according to rules which represent the relations between letters. The French language is a system which orders sounds to represent things, (including ideas representing things), according to rules which represent the relations between things, (including the relations between ideas). Elements representing soemthing are called "symbols", and what they represent is called their "meaning". Three short electrical impulses in the Morse code are the symbol for the letter "S", and that letter is the meaning of those impulses. The sum of the meanings of a code may be called its "universe". The universe of Morse code is the alphabet, because Morse code represents its letters and the relations between the letters. Chinese ideograms lie outside the universe of the Morse code. The universe of French is a specific kind of phenomena, because French represents those phenomena and the relations between them. That universe is not the only one, because there are phenomena and relations which French does not represent, (they cannot be said in French). The universe of German is very similar to the French universe, but does not coincide: some things and relations can be said in French but not in German, and vice versa. The universe of Mandarin is even more different from the French one, and the universe of Byzantine painting overlaps even less with the universe of the French language. This raises the question of translations, which is of course fundamental for communication. I shall touch upon it only slightly.

If we want to communicate between universes, we must establish codes which represent the codes of those universes. We can do it, because symbols may represent other symbols. Through such "meta-codes" composed of

symbols representing the symbols of the codes which represent the universes we may represent indirectly various universes. At a price, however. The universe of a meta-code is of course broader than the universe of the various codes it represents, but the meaning of the symbols of the meta-code is more indirect, or, as one may say, more formal. One may establish a hierarchy in this way, and establish meta-codes of meta-codes, which become ever more formal. The code of physics is a meta-code of various spoken languages, and in this sense the propositions of physics are bridges which serve to translate between French and German, and even Chinese. And the code of symbolical logics is a meta-code of the codes of various sciences, philosophies and so forth. These examples illustrate the problem of translation. The sentences of physics do communicate between various sentences of French and German, and thus the universe of physics is common to both these universes. But some other sentences of French and German lie outside the universe of physics and still cannot be translated, because the code of physics does not include the entire universes of French and German. And the universe of physics, although it is represented by a meta-code of French and German, acquires a proper structure and dynamics, because the meta-code of physics acquires an autonomy from the codes it was meant to unite. Thus not every sentence of physics may be translated into French or German. And if we were to establish a meta-code of French and the Bysantine paintings, this would show even more clearly. I shall drop this problem with the remark that the most formal meta-codes of our civilisation are mathematics and symbolical logics, and that it has been shown that these two codes cannot be reduced one upon the other.

Let me attack the problem from a different angle. Because symbols do not only pose the question of "distance". To be sure: the hierarchy of symbols and symbols of symbols is a matter of "distance". Symbols which represent concrete experiences, (and falsify them by representing them), are at the bottom of the hierarchical pyramid, and on its top are highly abstract, (namely theoretical), symbols. But symbols pose also the question of <u>how</u> they represent their meaning. The question of code structure. There are two extremes here. On one extreme each symbol may represent a single elementof the universe of the code, and each element of the universe is represented within the code by a single symbol. This bi-univocal relation between code and universe is called "denotation". The universe of a denotating code is thus clear and distinct. On the other extreme each symbol may represent a whole papameter of elements of the universe of the code, and each element of the universe may be represented by a number of symbols. This equivocal relation between code and universe is called "connotation". The universe of a connotating code is thus confused and compact. In fact those two extremes are never to be found in the

existing code structures, although the code of symbolical logics approaches the denotating structure, and the code of dreams the connotating structure.

Now the problem of translation, if seen thus, is that every code, including every meta-code, must have a structure. Take the code of the French language and its meta-code of physics as an example. French is of course a code with a very mixed structure, some of it denotating and some of it connotating. It is probably more connotating than German, (the famous Latin clarity), but still it is far less denotating than is the code of physics. Therefore the universe of physics has a different, far clearer and more distinct structure than has the universe of French, it is far less confused and compact. And therefore the French sentences are falsified if rendered in the code of physics, and "tradutore-traditore". On the other hand the structure of the code of byzantine painting is probably far more connotating than French or German, its universe is far more confuse and compact, and any meta code of these codes, (like logical analysis), will necessarily fail in this aspect. Now there is the temptation to say that the meaning of denotating codes is relatively clear, and the one of connotating codes is richer. If we consider the denotating quality of logics, and the connotating quality of lyrical poetry, we are inclined to believe it. But here again, the matter more complex. Cabbalism is an example for denotation without clarity, and demagoguery, (including almost all the messages of the mass media), an example of connotation with poverty of meaning. Let me therefore insist on the mysterious complexity of human communication.

This mystery becomes denser, if we direct our attention to the function of symbols. They "represent", which means they substitute something. But they do so only for those who decodify them, (know the code they are part of). If an illiterate sees an "o", he sees a cercle left by a chalk on a blackboard. If a Taoist sees it, he sees the symbol of total perfection. A chemist sees the symbol of an atom of oxygen, and a mathematician sees the symbol of zero. Now in a sense it is the illiterate who sees the thing, whilst all the others try not to see it. This pretending not to see the thing in order to see a meaning behind it, a meaning which has been put there through codification, is, I believe, characteristically human. This is our effort to give a meaning to the world, ("Sinngebung"), by pretending This is our "alienation", pur opposition to the concreteness, stupid absurdity, or whatever, of mere being-out-there. We codify things like chalk molecules into symbols, in order to give the world, and ourselves, a meaning. And this is why human communication is negatively entropic. Symbolical communication is a mere pretense, an artifice, not "real" in the sense of physics. An "o" is not really a symbol, but chalk. And thus symbolical communication is not really subject to the second principle of thermo-dynamics. Since it is not real, it is not really natural. It is artificial. It goes against nature, thought not really. It is our dignity.

V. Vilém Flusser.

From scientific discourse to demagoguery.

Communication is that process by which memories are linked through channels. How the memories are linked is the structure of the process. I shall here distinguish between two basic structures. In the first structure messages flow from one memory in the direction of other memories, and I shall call it the "discoursive structure". In the second structure messages oscillate between memories, and I shall call it the "dialogical structure". An example of the first structure is this talk, other examples are books, the press, TV posters, concerts, art exhibitions, chainstores, the Church hierarchy and the hierarchy of public administration. An example of the second structure is the discussion that will follow this talk, other examples are parliament, congresses, laboratories, the telephone network, making love, dancing and fighting. In this lecture I shall consider discourse, and I shall reserve the discussion of dialogue for the next lexture. But a few words must be said immediately with regard to how the two structures are related to each other.

There can be no dialogue without discourse, and vice versa, because in dialogue messages are elaborated for discourse, and in discourse messages are distributed for dialogues. Again: discourse is an aspect of dialogue, and dialogue an aspect of discourse. Take philosophy as an example. Every single lecture and book is a discourse which is part of the philosophical dialogue, ("we dialogue with the Greeks"), which again is part of the great discourse of human thought, which again is part of that dialogue between men concerning the meaning of life, which again is part of the discourse of history, and so forth. Still: at certain places and certain moments one structure prevails over the other. The barroque and the ancien régime are examples of dialogue domination: the ellipse around the Newtonian sun and around the Sun-king, round tables in the salons of ladies, menuetts and duels. The French revolution, (and the American one), brought the domination of discourse: inflamed oratory, imperialistic expansion, technological and Darwinian progress, goose-step and television. This predominance of discourse over dialogue has become so pronounced at present, that dialogue is in danger of disappearing. When people say that they are lonely because they cannot communicate, they mean the impossibility to dialogue, not inexistent communication. Discoursive communication is omnipresent. This is why I shall first consider discourse: it is the danger that we have to face now.

In discourse one can distinguish between a sender and a receiver of information. Information stored in the memory of the sender is transmitted to the memories of receivers. Its purpose is to multiply existing information by distributing it, and thus preserve it the better against the entropic action of time: discourse is conservative. But it can be extremely dynamic. It may, like the discourse of science does, absorb ever new information coming in from various dialogues, and distribute it. Its conservativis

may be progressive. This dialectics of discourse becomes evident, if we consider that overall discourse which characterizes mankind and shows that human communication is artificial: "paideia". In it the sender is one generation, and the receiver the next one. Paideia is conservative, because it preserves available information. And it is progressive, because it embodies new information coming in from the various dialogues within the body of available information to be distributed. Although of course not every paideia is equally progressive. The paideia of Negro tribes is less open to new information than was Occidental paideia in the recent past. Now, with the predominance of discourse over dialogue, (an apparently progressive phenomenon), our paideia may become ever less progressive, because less information from dialogues flows into it. Post-history approaching?

We may distinguish between various discourse structures at present. Here are the most important examples: the pyramid, the tree, the theatre, and the amphitheatre structures. In the pyramid structure the sender emits information to a number of receivers, who transmit it to an ever growing number of receivers-transmitters. The army is an example. So is the feudal system. In the tree structure the sender emits information to a number of receivers who transmit, each one, part of it to other receivers by including new information concerning that part, in an ever growing process of branching-out specialisation. The discourse of science is an example. So is technological progress. In the theatre structure the sender emits information to a number of receivers who form a semi-cercle which permits a dialogue after the reception of the message. The class room is an example. So is parliamentary discourse. In the amphitheater structure the sender emits information toward a circular horizon of mutually non-communicating receivers. Demagoguery is an example. So is television. These structures may, of course be variously combined, and there are other structures. They may come up in the course of these lectures.

The reception of the message can be achieved through basically two methods only: either the receivers open themselves to the sender and admit his message; or there is a mechanism which cracks the receivers and infiltrates the message. An example of the first method is the opening of the TV box, and for the second method the way the messages of posters penetrate into receivers. But of course the distinction between the two methods is far more subtle. What seems to be an opening up may be the result of previous cracking. It may be shown, in the case of opening TV sets, that televiewers have been previously cracked up through other media and made to open their boxes. There is however one way to distinguish between the two methods more clearly. If there is, in the receiver, a "zero believe" in the message emitted, we are in the presence of the first method, if not, in

the presence of the second method. A "zero belief" is the amount of openness of a specific game for noise absorption. It is a mathematical concept and cannot be here expounded. But it is relatively easy to verify its absence. If there is no, or insufficient, "zero belief", there is an executive at the disposal of the sender to crack up the receiver. Some of those executive apparatus are carefully hidded, to create the illusion of "zero belief" in the very receiver. It is one of the tasks of communicology to brin those hidden executives into the open. I suggest that the result of that search will be that there is "zero belief" only for the messages emitted by scientific discourse at present. All the other discourses dispose of some overt or covert executives. I shall call discourses based on "zero beliefs "authoritarian" discourses, and those applying executive methods, "tyrannical", and I suggest that science is our only authority at present.

Now if what I just said is true, (and there are very strong arguments to sustain it), we are in a curicus situation. Our society has been structured, for hundreds of years, by one dominating authoritarian discourse: the Catholic Church. An enormous majority of receivers had "zero belief" in th messages of the senders, including the heretics and other dissenters. Because "zero belief" is not faith, but readiness to admit the message. And this was coherent with the structure of that discourse: its pyramid structure was perfectly suitable for the authoritarian method of transmission: There was an "author" of the message, (God), and a hierarchy of transmittor (the clergy and so forth). Later the "zero belief", (and not "faith"), began to vanish, and the enormous majority of receivers, including the faithful, closed themselves up to Church message. The Church became tyrannical, (applied executive methods), lost its authority, and simultaneously society began to be structured by various dialogical forms of communication. In that situation both authority and tyranny, (discoursive phenomena), were being pushed into the background.

With the French, the American, the Industrial revolutions and so forth discourse became again the dominant communication form. And very soc it took ever more efficient and omnipresent technological aspects. Now all of those various discourses which began to stream through society may be shown to be tyrannical, (executive) except one: the scientific discourse. It is authoritarian: an enormous majority of receivers holds "zero belief" with regard to its messages, and it disposes of no executive. But this is not cohererent with the structure of that discourse: the tree structure has no "author", but is propelled by a very specific kind of doubt called the "scientific method". We shall go into it later. From the point of view of communication, however, the scientific method is not operative. Science communicates, (distributes its messages), through authritarian methods. This contradiction between the structure of science and its discourse is an external aspect to what is called the "crisis of science".

To resume the curious situation we are in: (our society is characterized by the dominance of discoursive over dialogical communication to a point where the function of dialogue is threatened. Mass media have the amphitheatrival structure of discourse which precludes dialogisation, and the amphitheatre which is the horizon of their broadcast is assuming cosmic dimension. Discourses with theatrical structures, like the cinema and the class room, and which seem to permit dialogisation of precedent discourse, are loosing the impact they had during the nineteenth century and the first half of this one, because mass media amphitheatres are taking over. Discourses with pyramid structures, which have been classically authoritarian, have become just as tyrannical as are the amphiteatrical discourses, because the discourse of science has distroyed our "zero belief" in them. Thus State, party, enterprize and so forth have lost their authority, although not their function. And the tree structure of the scientific discourse, which is the only authoritative one in our situation, is in contradiction with its function.

Discourses emit available information for various receivers. They permit that public information may become private. The public man which appears on the TV screen becomes an ininvited guest in the private parlor. The public revelation of God in the discourse of the Church becomes a private experience for the receiver. Discourses, by making the public private, are de-politsizing. Dialogues, which publish previously private information, have the opposite, politizing effect. It is in this sense that democracy is dialogical, and totalitarianism is discoursive. The present dominance of discourse over dialogue points at progressive de-politisation and totalitarian structures. A totalitarian structure is not necessarily tyrannical, and the Medieval Church proves it. Since the receivers admitted it, it was an authoritarian structure. But in our situation, the totalitarian society of the future will have to be a tyranny, because it cannot be a scientific totalitarism, the only one that could conceivable have authority at present. Science contradicts it. But although we are heading undoubtedly toward a totalitarian situation, (unless soemthing is done to stop the dominance of discourse at the last moment), the totalitarian depolitisation of tomorrow may not be felt at all to be tyrannical. People will probably be made to accept it through sophisticated covering up of the executive methods. A "zero zero belief" will thus have been manufactured. A demagogical tyranny is not felt to be one. Since science cannot be an authority, other authorities will be demagogically manufactured. The remainder of this course will be concerned with an analysis of this dialectics between science and demagoguery which characterizes our situation.

VI. Vilém Flusser

From family dialogue to the telephone.

In my last talk I have distinguished between two ways to link memories, between two communication structures: dialogue and discourse. And I said that what characterizes dialogue is the oscillation of the message between memories, so that to distinguish between sender and receiver is no longer very useful. Of course: if you look at a telephone you will still find that it has two sides: the sending side which you put against your mouth, and the receiveing side which you put against your ear. But these two sides are welded together, which is what distinguishes the telephone from both microphone and radio receiver, which are separated by a channel. You may say that the telephone is a microphone and a radio set become one, or that microphone and radio set are a telephone torn asunder. But by saying this, you will have driven an important point which characterizes our situation: the technology behind the telephone and the broadcasting system is very akin, and there is no technological reason why our dialogical systems should not be as technically advanced as are our discoursive systems. The reason why the dialogical systems are far behind must be elsewehere.

The univocal flux of messages in discours, I said the last time, is what makes discoursive communication both traditional and progressive. The oscillation of messages in dialogue renders the dialogical communication "responsible" in the sense of permitting immediate responses. Responsibility is not immediate answer, but the capacity for immediate answer, and the accent should be on the word "immediate". Of course: we may be capable of answering even the messages of discourse through one medium or another. One may send letters to newspaper editors or call by phone TV stations. But in dialogue it is the medium itself which permits our answer. Responsibility is this immediateness of our capacity to answer. This is why discourse fosters an irresponsible attitude in the receivers, while dialogue provokes a responsible attitude even during reception. Now responsibility is of course the political attitude: it is capacity and readiness for publication. And this is the reason why dialogical communications have not been technologically developed. It is not in the interest of those who pay for technology to provoke responsible, namely political, answers to the messages which established power broadcasts.

For the Greeks, dialogue and politics were in fact inseperable concept. The citizen of the Polis lived in a private house, ("oikó"), where he manufactured products for sale in the marketplace, and behind which there were fields worked by his slaves and women. This was the private, "economical" phase of his life, and it was marked by work, "askolía". But when the work was done and the product was finished, he left the house for the market place "agora", in order to exchange it. That exchange established the value of the product. And, of course, that product was not only shoes and tables, but al

so opinion, "doxai". The exchange of products, including opinions, on the market place was held not to be work, "askolía", but leasure, "skolé". The exchange of opinions was called "dialogein", (the exchange of words, "logoi"); but of course the exchange of products was also felt to be part of the dialogical life, of "askolé". And it was the "political" life, because not only did it establish the value of opinions, "normai", but through those values it permitted to steer the ship of the State, "kybernein". Now these three aspects of the dialogue, ("skolé"=school, "normai"=values, and "kybernein"= to govern), are those that render it not only the political, but also the creative form of communication. A school for normative cybernetics.

The memories linked in dialogue consist of various competences. The competence of the shoemaker, the potter, the philosopher and the soldier. Those competences are private: stored within a memory. Through dialogue on the market place they become public, they become competences of the Republic. Through their exchange they achieve a value. They become valuable for the Republic. But what is even more important: through their being linked to each other they create an entirely new competence which somehow jumps, emergesin the process. The new competence is not only the sum of the competences being exchanged: it is also an overcoming of all those competences which participate in it. It is a "synthesis" of which the old competences are the "theses". Thus dialogue may lead, if it is successful, to dialectics. To the creation of new forms, to new information. This is indeed what Socrates was doing on the agora of Athens, and what all the dialogues in all the market places are attempting to do. And this is also what "democracy" meant for the Greeks and should mean always: a dialogue which not only steers the ship of the state, but also creates new information. And this is why the Greeks thought that democracy was supreme "poiesis": creation.

It is characteristic of our situation that we no longer equate poetry with democracy, politics with creation. That we have come to believe that poetry and creation are processes which go on in isolation. This Romantic belief of ours is an aspect, and a result, of the totalitarian predominance of discours. No doubt: the new information which emerged from dialogue is stored in the memories of its participants and thus becomes private. And then may be further elaborated by what was called the "inner dialogue" by Platon. And no doubt also: the new information which emerged from dialogue will be later broadcast through discours. Still: synthesis is the only way by which new forms may be created: there is no creation "ex nihilo". And Synthesis is a dialogical, political process. It is our tragedy, the tragedy of totalitarian massification, that we no longer know it.

Because, what there is left of dialogue in our situation, has been pushed by the dominant broadcasting systems into the private sphere, into "oiké". A paradoxical situation, since dialogue is essentially public. What we still have is the dialogue in the sitting room, in closed laborato-

ries and administrative councils, and in the rarefied atmosphere of government decision making. Now the family dialogue and the colloquial conversation are caricatures of dialogues: they do not exchange information to creat a new one, but only play like in ping-pong with the same information common to all participants and received through broadcast. The scientific and artistic dialogues indeed create new information, but they are communicated in hermetic codes to which there is a difficult access. They have lost the political dimension. And the dialogues of decision making, (and decision making is of course the political aspect of every true dialogue), have now become secret, secretive, and "secretaries of State" participate in it. In fact, we have lost, or are about to lose, every access to a true dialogue, and therefore no longer remember what it is all about. We have become irresponsible, uncapable of immediate answer to received information.

Now this catastrophic depolitisation of ours, (including of those now called, wrongly, "politicians"), is alleged to have a technical reason. The argument goes as follows: in small States like Athens everybody can dialogu with everybody, but this is no longer possible in colossal states like ours Discours can be made available to everybody: TV, the press, posters and shop windows are "open" for millions. But dialogue must always be a closed circuit. The market place shows this. There can be no dialogue, no exchange of products, in a supermarket. The supermarket discourses in the direction of more or less passive consumers. But of course that argument is a lie in the interest of those who hold the power of decision. Dialogical networks may be just as open to millions as are discoursive broadcasting systems. The postal and the telephone systems are here to prove it. And the cable TV may prove it even more clearly. The fact is that the holders of power refuse to make technology available for dialogical communication. And they thus prevent new information from emerging. Their own discourses thus become ever poorer in information, ever more demagogical. And as this process goes on, the only possibility open to the establishment of dialogues is revolution. This is indeed catastrophic.

Let us not underestimate, however, the existing dialogical systems We can indeed telephone and write letters to each other, and in fact we do so to an extend which threatens those systems with breakdown. The urge for dialogue is still alive within us. But of course these systems cannot satisfy us. Because through them we reach each other by alphabetical and spoken language only. By lineary codified message. We get at the message but we cannot get at the other person. Dialogue is not only to get a message and to reply to it. It is also to recognize oneself in the other. It is not only a duel of messages, "polemos". It is also the admittance of the other, "eros". By its very structure, the post office and the telephone system cannot be erotical, only polemic. Even if we desperately try to force them into "eros". They are import-

they are important, but entirely insufficient. We must try for other dialogical systems. And this is possible both technically and structurally. Technically it is possible to establish non-linear dialogues, and cable TV is a first example. And structurally it is possible, if we remember that dialogues are not necessarily circles like the family or the council, but may be networks like the telephone system.

In sum: we must try to imagine surface dialogical networks. The walls in China are an example for such an imagination. So are the walls in '68 Paris. But of course, they are not very good examples. They are not good technically, nor structurally, nor as far as the messages dialogued there are concerned. We must do far better, if we are to avoid technocratic fascism of right and left, technocratic discoursive totalitarianism. And some such possibilities are begining to appear on the horizon. New techniques lige group dynamics and brain storming, and new structures like the linking of several circles into a network. One of the purposes of this course of lectures is to provoke in you just such an imagination.

I have, myself, a model for such a responsible opposition to the demagoguery of totalitarian discourse. The philosophical dialogue under a totally new structure. In the past, philosophy was a dialogue which put all the discourses in question. Many say that it is dead now, and for very good reasons. It is a dialogue of linear structure. I imagine, in my fancy, a philosophical dialogue which goes on in media like the cinema, the poster, and, most impart, in video-tape. A dialogue which is philosophical in the sense of methodically doubting. And which is technically and structurally open to everybody. Of course, such a dialogue must elaborate new codes, and this elaboration must again be dialogued somehow. All this is my private fancy. But there are symptoms about that it is not merely private. Others seem to have similar dreams, and I believe they are the ones who will really bring about a revolution. A revolution in communication, which, I believe, is the true political revolution.

The futur does not seem to be very promising, if one looks at it from the point of view of communication. If present tendencies continue, we shall be all inserted, very shortly, into a cosmic circus of demagoguery broadcast. "Panem et circenses", where the accent will shift ever more to "circenses". But there is hope still for those who believe that man may recognize himself in the other. The possibility of dialogue has not yet been entirely eliminated. But we have to do something about it.

To learn how to understand.

In this second part of the course on "Phenomena of Communication" the attention will shift from the structure to the messages of communication. For the purpose of simplification we can distinguish between three types of messages which men emit and receive toward and from each other: (a) messages of knowledge, (b) messages of desires, and (c) messages of sensations and feelings. It is easy to show that all types of messages can be reduced to these three classes, if one formalizes them, (submits them to what is called in logics "propositional calculus"). Class (a) messages are indicatives, class (b) are imperatives, and class (c) are exclamations. Of course: there are propositions in question form. But it may be shown that questions ask for answers of one of the three classes mentioned. This distinction into three classes of messages is traditional. Class (a) is "epistemological" and its ideal is "truth", class (b) is "ethical" and its ideal is "the good", and class (c) is "esthetical" and its ideal is "beauty". The most important communication of class (a) is science, of class (b) is politics, and of class (c) is art. But of course this schematic distinction is pure abstraction. Every factual communication is a mixture of all three classes, and, which is more important, each class may assume the appearence of some other class: imperatives may look like indicatives, indicatives like exclamations, and so forth. This mixture and this masquerade is dangerously misleading, and a powerful weapon for the manipulation of society by mass media. What seems to be "science" or "art" may often be shown to be in reality a masked imperative, which, because it is masked, changes the behavior patterns of the receivers the better. One of the duties of communicology is precisely to analyze messages in order to de-masque them: des-ideologisation. The present lecture will consider class (a) messages, those concerning knowledge.

One word of caution: although all messages may be formally classified as here proposed, most messages are "nonsense". Which means that, if analyzed formally, they show no information. It has been calculated that about 80% of human communication are nonsense. In mass media this proportion is probably much greater. And this is especially true where messages about knowledge are concerned. By far the greatest part of those messages contain no knowledge, but are pseudo-propositions. This important problem will not be considered here, but in a later lecture.

A message of knowledge, an indicative, is a sentence of the type "function". ("xfy"). It predicates, (pre-dicts), a "subject" in function of an "object" within a situation. The whole problem of epistemology, of how we can know, is contained in this simple statement. This is unfortunately not the place to go into the problem. Let it suffice to say that the problem involves "grammar", namely the philosophy of language, and that the philosophy

of science, ("epistemology" in the strict sense), is a philosophy of the sentences pronounced in scientific discourse. What must be stressed here however is the obvious fact that not all messages of knowledge are codified in spoken or written language. Knowledge may be communicated in any code, through images, through dance, through music. The fact that science is at present our most important communication of knowledge, and that science uses linguistic codes, or codes derived from language, makes us often forget this. Therefore, if I said that a message of knowledge is a sentence of the type "function", the term "sentence" did not mean a set of words only, and if I said that the problem of epistemology is linguistic, I meant by "linguistic" all possible codes, (not "langue", but "langage"). Still: spoken language, and more especially the type of language spoken in the West, (the "subject:predicate" language), is the obvious model for our analyzes of all messages of knowledge.

This is so, because there can be no question about the fact that science is our model of knowledge, and that science is codified by codes which have the fundamental structure of "subject:predicate" language. It is Occidental in this profound sense. Languages which do not have this structure, like some agglutinative languages of Africa and America, or some isolating languages of the Far East, communicate a different sort of knowledge. Our difficulty is that we may perhaps learn to understand this sort of knowledge througgh imagination and participation, (through our two- and three-dimensional codes), but not through linear, logical reading. And since our model of knowledge is science, this sort of knowledge must remain on the periphery for us, inspite of our efforts to incorporate it in our memories, (see: Taoism, Zen Buddhism, African and Mexican magic, as it is being experimented with in the States and in Europe).

Our memories are structured, at present, by a "zero belief" in scientific messages of knowledge. We are competent to receive such messages, (to "understand them"), in their "subject:predicate" structure. Of course, we have other competences as well. If we contemplate a work of art, a cathedral or a symphony, we may gain a knowledge, understand such an indicative message, although it is of an entirrely different structure. And we know that such a message is different from the esthetic message which comes from the work of art, although closely related to it. Art does reveal "truth" for us. Still: it is the "subject:predicate" structure, this very specific sort of function, which is for us the model of every knowledge. To know for us is to understand that "A is B", because this is how our memories have been programmed. In the end, we reduce every other type of function to this one. Very like a computer.

Now this suggests how we receive messages concerning knowledge, how we "learn", (if by "learning" we mean acquiring knowledge, which is a

restrictive use of that term): A message comes to our memory through some channel. If we know the code, we decodify it. It then shows to be an indicative, a message concerning knowledge. If it has the same structure as our competence, we can absorb it. If not, we do not understand it. After having absorbed it, we compare it with other such messages already stored in our memory. If it fits into them, it can be stored, and is taken as "true". If it does not fit, we may either re-arrange the messages already stored, and thus make room for the new message. In this case we have changed our knowledge, and to be "true" is a different criterium before and after the reception of this message. Or we may not be able to re-arrange the messages already stored, and the new message cannot be stored. It is then taken as "false". Thus the process of learning, of acquiring new knowledge, goes on on various levels: of the code, of the memory structure, and of the repertoire contained on that structure. I shall consider the problems posed by the code level in a future lecture, but call your attention to what I already said when considering the problem of translation. Here I shall discuss very rapidly the problems on the structural and repertoire levels only, because they have become very pressing at present.

The storing capacity of human memories is limited, although very great. It may be true that we do not utilize the entire storing capacity of our brain, but there must be good reasons why we do not do it. On the other hand, the amount of available messages of knowledge has become enormous, and is increasing with every moment that passes. This is due to the tree structure of scientific discourse. We are rapidly approaching a point where it is no longer possible to store such messages in our memory, and in fact we may have already passed it. This is what is known, imprecisely as the "inflation of information". Imprecisely, because it is only knowledge, not ethical and esthetic information, which is thus inflated. It does not seem, therefore, to be a very good strategy to aim at a learning on the repertoire level. Our memories are already filled with too many messages of knowledge. We are no longer able to very well manipulate that mass, and re-arrange it for the reception of new information. Further knowledge in such a situation is becoming useless. We cannot understand it.

There are artificial memories with capacities of storage much greater than is the human one, libraries for instance. But they are slow and clumsy. But recently a revolution in memories has occurred: computers. Their storage capacity is even greater than is the library capacity, it is practically infinite, (because memories can be replaced by other ones, if they are exhausted), and they are quick and handy. It is therefore a far better strategy to store new information in computers and similar cybernetic systems, than to store them in human memories. They can never hope to compete with computers as far as storing is concerned. The

process of learning must shift from the level of repertoire to the structural level. We must concentrate on changing the structure of our memories for the reception of various types of messages of knowledge, rather than trying to store them. We must become, all of us, "system analysts", rather then trying to become second-rate computers.

Now this implies a profound revolution in all our learning habits, including those of our school system. We cannot go on ignoring the information inflation on the one hand, and the existence of computers on the other. Admittedly, it is a painful revolution. For centuries, or even millenia, to learn meant chiefly to store information. The ideal was a man who knew everything to be known, "uomo universale". Now such an ideal has become absurd. But, paradoxically, computers are now precisely such "uomini universali". We must abandon that ideal. Instead, we must learn structures. Empty, formal disciplines, like logics, mathematics, computer languages, theories like the theory of information, of decision, cybernetics. In sum: we must abandon the effort "what to know", and make the effort "how to know". Our aim must be, not "know what", but "know how".

If we go on ignoring the information inflation and the existence of computers, we shall in fact abdicate from all knowledge. We shall be manipulated by those few who have learned how to manipulate structures, and therefore use computers. We shall end up knowing nothing and being the object of somebody else's knowledge. This is the epistemological aspect of the danger of technocratic totalitarianism.

We know, of course, that this is so. The crisis of our universities is here to prove it. We know the uselessness of acquiring large amou of knowledge. Not only, because of the reasons already quoted, but also because the information inflation renders obsolete most knowledges very quic ly. A student graduated in 1975 is "worth" much more than one graduated i 1945, because most of the 1945 knowledge is no longer "valid". He should therefore earn a better salary when leaving school than 10 years later. Bu although we know all this, we have not yet succeeded in even imagining the new learning process. this is a challenge, and unless we meet it, technocrats will take over.

Of course: messages of knowledge are useless without messages of ethics and esthetics. Computers are competent for knowledge only. They are mere tools. But unless we take over, unless we learn how to learn, they will take over. They and the technocrats, who are like them. This why we must come to understand how to learn how to understand.

VIII. Vilém Flusser

Fashion: from the Bible to Bardot.

For didactical purposes messages may be classified into those which communicate knowledge, those which communicate desires, and those which communicate feelings, and such a classification is not based upon psychological criteria, but upon an analysis of the structure of the message. In this lecture I shall concentrate upon messages of the second class, upon what may be called the communication of ethical, moral values. But the moment we consider in the concrete any such message, our structural criterium fails us. We expect desires to be communicated in the imperative form, since "come here!" is an abbreviated form of "I want you to come here.", and we expect therefore the class of messages we are considering to consist of more or less general imperatives, of commandments. We shall find that this is not so, however, and that most desires are communicated in an apparently indicative form. To illustrate this difficulty, consider these two messages: "Thou shalst not kill!" and "if you kill, you risk to go to jail". The first is an abbreviation of "I want you not to kill", but the second seems to having nothing to do with a desire being communicated. It seems to be the communication of a knowledge about a situation, namely about a legal situation. Still, it is a communication of the same desire the first example communcicates, namely: "I want you not to kill". It hides its imperative behind a facade of an implication: "if..then" to create the impression of a free choice in the receiver of the message, and thus have him do what I want him to do. The reduction of those apparent implications, the "modes d'emploi", to the imperatives they are in fact, and thus the demonstration of their belonging to the class of ethical messages, is an important task of the theory of communication, the task of "des-ideologisation". It becomes increasingly important at present, because mass media are, at bottom, channels to communicate the desires of their proprietors under the mask of "modes d'emploi". Masked behavior patterns.

Let me restate the problem. It is not only a question of "grammar". If I am able to show that the "mode d'emploi" printed on a tin of Maggi soup is the hidden message: "I want you to buy me", I did not merely manipulate sentence structures. The problem of values, (of what is called the "crisis of values"), is involved in this question. At first glance it does not look at all as if the message "Love thy God!" and the message: "if you open the tin, put its contents in a plate and heat it, you will have chicken soup" are of the same class. Namely messages ofbehavior patterns desired by someone. That those two messages are in fact of the same class, that they are both "ethical", namely practical models, can only be seen after a long and painful process called the "history of Western civilisation". And it can be seen in some clarity only at present, in our situation where mass media have become the channles of communication for the desires of a technocratic and apparent "value-free" apparatus. This is the problem I want to discuss in this lectu

At the basis of our civilisation stand the Jewish and the Greek traditions. For the Jewish tradition there is an eternal, transcendent will which communicates itself to men in the form of "revealed" models of behavior, of Commandments. These imperatives, contained in the Bible, are very general behavior patterns, but it is possible to deduce very specific models from them, models for each and every concrete living situation. This is done by the endless Bible commentaries, like the Talmud, and Jewish life is "good" if it is modelled by the elaborate deductions from the Divine commandments in every detail. For the Greek tradition there are eternal, unchangeable forms, "ideas" which stand in Heaven. Wisdom, "sophia", is to discover those forms and to follow them in one's living. The method for discovery is contemplation, "theoría", and the application of the forms to life is the art of mathematics and music. The supreme form standing eternally there is the form of beauty and goodness, "kallokagathía". When these two traditions come together to constitute Western civilisation, a sort of synthetic model of behavior comes about, Christ, and for more than a thousand years to live "well" is to follow that enormous and all-embracing model: "imitatio Christi".

At the beginning of Modern Age a profound change occurs in Occidental thinking with regard to models. They are no longer taken to be a message from "outside", to be either revealed or discovered, and they are no longer taken to be unchangeable and eternal. They are now seen to be products of men, instruments for the understanding of the world. This profound change occurs at first in the field of science, where models not for behavior, but for knowledge are concerned. "Theory" thus no longer is taken to mean the contemplation of eternal mathematical forms, but the elaboration of ever "better" models. But very soon this change irradiates into the field of ethics and politics as well. "The good" is no longer taken as an expression of a superhuman will, or as an eternal "value", but as a kind of convention between men to be constantly elaborated. At the beginning of Modern Age, it is true, "the good" is being conceived as something to be discovered in "nature", and a sort of "natural society", "natural law","natural behavior" is looked for. But soon this transposition of ethical models from the transcendent into the immanent is abandoned in favor of a radical reformulation of the concept of "model". Now this is what the word "modern" means, at bottom: the progressive elaboration of ever "better" models of behavior, of knowledge and of experience, of ever "better" "modes d'emploi", of ever improving "modes"=fashions. The belief in progress which characterizes Modern Age, the belief that it is possible to understand the world ever better, and to change it ever better, and to build ever better societies according to ever better social models, and so forth, is fundamentally the belief that models are human instruments capable of constant improvement. We are now at the end of Modern Age, because we no donger hold that belief: we do not know what is meant by the term "a better model".

It has become clear to us that the modern concept of "model" is, in fact a hybrid. On the one hand Modern thinkers accept it to be a fact that mode are human products, but on the other hand they still hold that they are som kind of approximation of some "definite", "perfect" model. Which is what i meant by "improvement": approximation of the perfect model. This is true f scientific models: they are "better" if they approach "truer knowledge". An this is true for ethical models: they are "better" if they approach "perfect society" and the "good life". Thus to be "modern" is to have pushed the et nal model from the center to the horizon, a model which cannot be followed, but which may be approached by infinite progression. The moderns did not abolish the concept of an "eternal, perfect model", they only made it inope ative. But we, for many reasons which cannot here be discussed, have been obliged to abandon such a concept completely. The term "a better model" is, for us, a meaningless term. For us, every model is "good" for the purpose it was intended: nothing is "good in itself", and everything is "good for something". Brigitte Bardot is a good model for a behavior of soap-buying, and soap-buying is a good model for consumer behavior, and consumer behavio is a good model for life in an industrial society, and so forth. On the oth hand terrorism is a good model for revolutionary behavior, and revolutionary behavior is a good model for social change, and social change is a good model for new types of production, and so forth. There is, for us, no sense in saying that Miss Bardot is a better or worse model than is Mr. Ché Guevara, unless we say that it is better for something somebody wants somewhere. Now this is what is commonly called the "crisis of values".

What I just said is of course an exaggeration. None of us is in fact totally yet "beyond good and evil". If I say "Generals are as good for killing as Maggi soups are good for eating" you will probably smile, which is a sign that you still believe in some sort of hierarchy of values. Some pal ghost of the Divine will and of Kallokagathia still lingers on in the background of our conscience. The reason is, of course, that we are not yet beyond values, but within the crisis of values. We are no longer strictly mod erns, but still: not everything is for us a mere question of fashion. And those of us who are almost beyond values, namley the technocrats and their functionaires, those of us who indeed no longer believe in "objective values are themselves in trouble to cling to their newly conquered pragmatism. The may proclaim themselves to be "value-free", but still they know that they ar in the service of some will which is "ideological" in the sense of believing to be, itself, in some way "objective". This dichotomy of ours, this our being and not being "moderns", this our tendency toward "dis-ideologisation" but also toward commitment, in short: this confusion of ours as far as model of behavior is concerned, is reflected in our daily scene, but of course mos obviously in our communications.

From this point of view an analysis of the messages within the mass media becomes revealing. On the one hand we shall find messages which proclaim, very elegantly, some traditional models of behavior, like love of each other and of God, patriotism and progress toward socialism, kindness toward widows and children, and so forth. It does not matter very much that some of those models are in conflict with others: this "defense of the Occidental values" is only a surface phenomenon, and the imperatives thus communicated are only a pretext for more meaningful communications. Namely the communications of "modes d'emploi" which are models of behavior in the interest of those who own the mass media channels. These "modes d'emploi" are masked under the form of implications "if...then...", but also under the form of epistemological and esthetic models. Miss Bardot appears in the media apparently as an actress, therefore as an esthetic model. But she is, of course, in reality an ethical model, a model for consumer behavior, and this is the reason why she is shown on TV and in films. The communication of "modes d'emploi" is the real purpose of mass communication, and the "modes d'emploi" are the true values to which those media are committed. Thisbecomes clear under analysis, under "dis-ideologisation". The dichotomy is in the fact that fashion "mode d'emploi", becomes, somehow, an ideology in its own right. In fact, and paradoxically, it becomes the ideology of the apparently ideology-free technocratic apparatus. Although all imperatives seem to have been "overcome", they may be re-discovered behind apparently value-free implications.

Now the choice we are being offered at present is not, as it appears to be, one between traditional values no longer believed in and a value-free life, within which we may elaborate our own specific and pragmatic models. It is rather a choice between traditional values and values which are not ours but of those who hold decision, but try to hide this. And it is in fact no true choice. Seldom, if ever, has there been so little freedom of choice as at present. We slip into the behavior patterns, into the fashions proposed to us, without being aware of it. And if we look at our scene, where fashions seem to change very quickly, but where fundamental patterns tend to become ever more rigid, we may appreciate this danger. Every year a new model Renault is proposed us, and every year we become more conditioned by the motor car model. No doubt: we cannot go back to the Bible in the sense of accepting "perfect models". But no doubt also: we cannot accept Miss Bardot and the fashions which preceed and follow her as a solution of our value crisis. I have no idea how to solve that crisis. If I had, there would be no crisis. But what I can do is to put the problem before you in the terms of the theory of communication: translation of apparent implications into the imperatives they are at bottom. You will see, if you have followed this lecture, that this is not a question of grammar, but of existential suffering.

Art: the beautiful and the nice.

One of the basic limitations of communicability is the fact that concrete experience cannot be communicated. This is so, because to communicate is to generalise, in the two meanings of :to compare, and to make public;and because "concrete expereince" means precisely that which can be compared with none other, and which cannot be made public. It is, by definition, unique an private. Still: there can be no doubt that our concrete experiences of the world are, to a large extend, informed by what is vaguely called "our cultural condition". Take the concrete experience of love between man and woman as an example. It can never be generalized: each such experience is unique and private, and cannot therefore be communicated. Still: we feel, while experiencing it, that we are being conditioned, and that this conditioning comes from two levels. One level may be called the "natural" one, (the onn of our physical, chemical, physiological and so forth conditions), and we need not go into it during this lecture. But the other level of conditioning, the "cultural" one, is far mor interesting. It may be shown that we love the woman we love within very specific historical patterns, which are in our memories, in our "program". It may be shown that the pattern "love between sexes" is not universal for mankind, (there are societies which do not have it, and where the concrete experience of this love is therefore impossible), and that it is a pattern which changes during the history of our own culture. In classical times, for instance, love between the sexes was considered to be a vulgar pragmatical affair, because it resulted in children and was therefore not a "pure" experience. The only "true" love was the homosexual one, what we now call "Platonic". During the Middle Ages, two types of love between the sexes were being distinguished: the "high" love between a lady and a knight, (the model of which was the love of St. Mary's), and the "low" love between a girl (or more freuqnetly a married woman), and a poet. The relationship between husband and wife did not fit well into any of those two patterns. During the late Middle Ages, under the influence of the "Roman de la Rose", our present model of love between man and woman began to be elaborated, and it is called "Romantic" because of that work of art. It took very long to penetrate into the concrete experience of the "masses". Even as late as Romanticism it was an experience restricted to the bourgeoisie only. It is a common experience now, thanks to cheap novels, films, and television. Although each of us is having a unique, private and uncommunicable experience of love of woman, still we have this experience within models which have been communicated to us.

I have elaborated this example somewhat excessively, because it can show what "art" is. It is the composition and communication of models for our concrete experiences of the world. It may be shown that we experience everything within such models, that we are programmed for all our pleasures and pains, for all colors, sounds, shapes and textures, for all perfumes, and

for all our loves and hatreds. This is one of the basic differences between animals and men: our concrete world is structured not only by our genetic program, but by what may be called our "aesthetic" program, (if by "aesthetic" we mean what the word etimologically implies, namely "aistheton"=concret experience). Where there is no aesthetic model available, we are literally "anaesthetized"=we experience nothing. We depend on art to experience the world. It is our method to percieve what is "real". It is art which is responsible for the fact that our world is a "Lebenswelt", (a world of human life), and not, like it is for animals, an "Umwelt", (an ecological system). In other words: art programs us for the experience of reality, and the artists are our programmers for reality, just like in the case of computers thar are those who program them for specific calculations. It is not only that we see a landscape within the model of a Leonardo or a Turner: rather where there is no landscape painter there is no landscape. Human reality is a product of art, (love and landscape just as much as war and the molecule of ribonucleic acid), and art is "poiesis": the pro-duction of what is real.

Now there seems to be a curious contradiction. On the one hand it is impossible to communicate the concrete experiences we are having. On the other hand there seems to be no concrete experience without a model which has been communicated. The fact is simple, however. Models of concrete experience, (the "works of art" in common parlance), are not generalisations of the artist's experience, and cannot be it. They are structures, forms, patterns, (or whatever the term we may chose), which the artist proposes for our future concrete experiences of the world. A love poem is not a generalisation of a specific experience of love the poet had: it is a proposal to experience love within a form not yet utilized in the past. A musical composition or an impressionist painting is not a generalisation of a concrete experience of sound or color the artist had, but a proposal to experience sound and color, (and the feelings, ideas and wishes connected with such an experience), within a new pattern. Artists do not try to communicat their private experiences, make a sort of confession. This would be an impossible, and also a very dull, undertaking. They submit proposals for future experience patterns. Their aim is to make reality richer. And in fact they are not so much concerned with what they are themselves experiencing, as with previous experience models. A poem of love has not so much to do with the love the poet is feeling as with the poem of love he was reading

Now if what I said is true, if the artists are indeed, in the saying of Heidegger's, "the organs by which we devour reality", it is obvious the aesthetic communication must preceed ethical and epistemological communication. We can only judge what we have experienced, and we can only know what we have experienced and judged. The artist is the producer of the stuff, (namely "reality"), which the politician judges and the scientist investigates. But of course the division into art, politics and science

is the product of a schizophrenic mentality, called "modern civilisation". In fact, there is no such division. Every human communication is aesthetic, ethical and epistemological at the same time. Every scientist is also an artist and a politician, every politician is also a scientist and an artist, and every artist is also a scientist and a politician. The endless talk about politically committed or uncommitted art, or about an art dependent or independent on science and its techniques is nonsense. As much nonsense as is the endless talk about the "value freedom" of science. And it shows why Jews, Christians and Moslims have that curious idea that beauty may be sinful. (I shall come back to this later). In short: every human communication is an aesthetic one, it transmits always a model for concrete experience, and in this sense we are all artists. In the words of a poet: man walks wrapped in beauty, and wherever he steps, he creates beauty.

And this permits us to say what is the meaning of the word "beauty". It means the originality, the newness, of an aesthetic proposition. A mode of concrete experience is "beautiful" to the extend to which there is no other previous model just like it. Because it is to this extend to which this model makes reality richer. "Beauty" is thus synonymous with "increas of the parameter of experience of the real". Now this seems to be a very empirical definition of beauty. And it is this empiricism of the definition which has rendered art criticism so doubtful: "de gustibus non est disputandum". But we now have a theory, (the theory of information), which permits us to define beauty far better. We may now say that the beauty of an aesthetic proposition, (of a "work of art"), is equal to the amount of information it contains. (Which may, as a thesis, but not always in praxis be calculated). Art criticism may, at long last, become more than the mere exclamation "I like this!". And this theory has the advantage to show the central problem of artistic communication. If it contains too little information, if it is too "traditional", it is not beautiful, (reality is not enriched by it). But if it contains too much information, if it does not absorb a sufficient amount of redundancy from traditional models, it does not communicate and becomes useless, (reality is not enriched by it). The artist's problem is to walk the narrow path between banality, (Kitsch) and dannacy, (excess of information). The famous dichotomy: genius-folly.

But if beauty is originality, we may understand why our established religions, (and other ideologies), mistrust beauty and the artist. They are the keepers of established models of behavior, (of ethical values). Now if our models of experience change through the propositions of beauty, our models of behavior are bound to change with them. Art is the true medium of revolution, (in politics as much as it is in science). If our experience of reality changes, everything else changes. This is the reason why "pure beauty" is sinful, and why the Soviets put artists into asylums.

In other words: for those established ideologies it is not nice to propose beauty. And since we are, all of us, ideologically programmed, we agree with them. Indeed: beauty is not nice. It is highly disagreable, to say the least of it. And, to say it better: beauty is terrifying. Rilke says that beauty is the beginning of terror which we can stand only because it disdains to destroy us. Beauty is terrifying, precisely because it proposes to change our experience of the real. It shouts at us: "Du must dein Leben aendern!=You must change your living!". It is much more agreable to try and ignore beauty, and concentrate upon the nice old models, which are nice because they are old and we are already programmed by them. Mozart is much nicer than Schoenberg, and Dante much nicer than Cummings, because the reality which Mozart and Dante propose is one for which we are programmed. Of course: Mozart and Dante where definitely not nice in their times. They have become nice through time: they have become redundant. But even so: they may be dangerous. Because they have proposed so much information, that time may not even now have exhausted it. It is far better if we trust those who propose models which repeat Mozart and Dante at present. They are much nicer. We can calmly enjoy them. They confirm our patterns of experience, instead of proposing new ones. Kitsch is the nicest. And it has a further advantage: it may serve as a mask for behavior patterns. If our patterns of experience are maintained steady, we can be more easily manipulated. Which is the reason and the justification of mass-art.

The mass media are thus committed to Kitsch by their very function. Which establishes, at present, a curious vicious circle. On the one hand the mass media are nice: they confirm our established patterns of experienc We love like Hollywood, we see colors like Kodak and we weep like the blues On the other hand the mass media force all those who want to propose new experience models into closed, highly hermetic circuits. Thus "avant-garde art, amputated from society by the mass media, becomes far too "beautiful", (too rich in information), and can communicate nothing. This pernicios division of art into the nice mass art and the beautiful elitistic art is a new phenomenon, and may result in a not as yet imaginable "death of the arts", namely stagnation of experience, which means total alienation. It will be the subject of a future lecture. Let me end by saying that beauty is what characterizes human communication: it is a structuring, namely giving significance, to human existence. If art is, as they say, in a crisis, human existence "tout court" is in a crisis. The first witness of man on Earth is beauty, namely: information. If art should die, entropy, nature would take over. Because this is what art is: the contrary of nature. And this is what man is: a being contrary to nature, an artificial being, an artist. He walks in beauty.

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1905	2-KTF-05	MEDIA II - CONTINUATION DE DIS	VF	/ /	KE
1906	2-KTF-06	MEDIA III - TV COMME EXEMPLE	VF	/ /	KE
1907	2-KTF-07	MEDIA IV - DIALOGUES	VF	/ /	KE
1908	2-KTF-08	MEDIA V - DIALOGUES II	VF	/ /	KE
1909	2-KTF-09	LA SYMBOLISATION II	VF	/ /	KE
1777	2-CFF	COMMUNICATION PHOTOGRAPHIQUE	VF	/ /	KPRO
2121	2-CFF-00	PROGRAMME RESUME - COMMUNICATI	VF	/ /	CR
1778	2-CFF-01	LA PRODUCTION PHOTOGRAPHIQUE	VF	/ /	KE
1779	2-CFF-02	LA DIFFUSION PHOTOGRAPHIQUE	VF	/ /	KE
1780	2-CFF-03	LA RECEPTION PHOTOGRAPHIQUE	VF	/ /	KE
1781	2-CFF-04	CRITIQUE PHOTOGRAPHIQUE	VF	/ /	KE
1782	2-CFE	(PHOTOGRAPHIC COMMUNICATION)	VF	/ /	KPRO
1783	2-CFE-01	PHOTO PRODUCTION	VF	/ /	KE
1784	2-CFE-02	PHOTO DISTRIBUTION	VF	/ /	KE
1785	2-CFE-03	PHOTO RECEPTION	VF	/ /	KE

X. Vilém Flusser

The avant-garde and closed circuit communication.

The communication revolution which is the theme of this course of lectures has changed profoundly the structure of what may be called "our cultural system". We may consider the culture we live in to be a system composed of elements, (culturemes), which are ordered by rules, (a structure). During the last three lectures I tried to suggest how the communication revolution has affected our culturemes, (our models of knowledge, of behavior, of experience), and it is to the change of structure caused by that revolution that I want to draw your attention. Roughly speaking, this was the structure of the Western cultural system before the revolution: It was organized on three levels: popular, national and universal culture. Each level had its specific character, and they were in a specific communication with each other. Popular culture was a memory within which the models elaborated by the two other levels were stored on a more or less pre-historical, mythical structure. Universal culture, (which meant: common to the Occident), was the historical discourse composed of dialogues which elaborated models. And national culture was a more or less deliberate and artificial middle layer of rather recent origin, (a product of the bourgeois school system, therefore of the invention of printing), which complicated the function of the cultural system without contributing anything to it. That system worked more or less as follows: On the universal level were those who had learned the codes which characterize Western culture. Those codes were responsible for the progressive, historical dynamism of that level. New models were being constantly evolved in science, politics and the arts, and this elaboration was a more or less deliberate process. We may distinguish the following phases: Renaissance, manierism, baroque, illuminism, romanticism, realism, and ever shorter phases more difficult to be distinguished due to the acceleration of progress. The models were translated into the somewhat simpler and cruder codes of the national level of culture, in the case of politics, (and to some extend in the case of art), but not in the case of science. There were national politics to some extend national arts, but never a national science. On that level not much more was done than the transmission of those cruder models to a greater number of receivers, (to the participants of schools and similar institutions), through discourse. And the models elaborated on the universal level were also translated into the entirely different codes of the popular level, both directly and through the intermediary of the national level. Two things happened during that translation: the models were changed, sometimes very profoundly, and there was a time gap, (déphasage), between the elaboration of the model and its reception on the popular level. Thus a scientific model may have become a myth when reaching the popular level, and popular culture may have been baroque whilst the universal level was changing into romanticism. There was however a constant feed-back between the various lev-

ons. Since all portions and of the universal level also participated in the popular one, they were constantly being informed by it. And when the Industrial revolution challenged that feed-back by creating the big proletarian towns the cultural system tried to save itself by absorbing the proletarians into the national level, and by artificially, (romantically), trying to keep alive the popular level. It succeedded more or less until the Second World war, although it paid a terrible price for it.

This cultural system was the result of the revolution caused by the invention of printing which had disrupted the cultural system of orthodoxy it had relatively little feed-back with other contemporary systems, although of course some oriental and African elements did penetrate it. But its discoursive dynamism, especially as far as scientific models are concerned, was responsible, in its later stages, for what is called "Occidental Imperialism" During the nineteenth century the western cultural system dominated the whole Earth and disrupted all other cultural systems, without being itself very much informed by them. The Western universal level thus became truly "universal", although in a tyrannical sense of the term, and at the same time the popular level of Western civilisation became slowly disrupted almost just as much as the non-western cultures, and degraded into folk-lore. The terminal stage of the western system was approximately this, (around the middle of this century): A highly dynamic, ever more rapidly progressive universal level, an increasingly vulgarised, impoverished, proletarian national level, and a rapidly decaying and artificially maintained popular level.

At this point the revolution of the mass media set in. It destroyed the very foundations of the cultural system by degrading the alphabetical printed code to become only one among many codes of prevailing communication. In a very short time it swept away the national level of culture by substituting the level of mass culture for it, (which will be the subject of the next lecture). But by doing so, and for other reasons, it also changed profoundly the structure of the universal level of culture. This is the situation we find ourselves in at present: There is a truly universal, namely global, level of culture, whereon or models are being elaborated, but it has an entirely different structure from what it had before the communication revolution. There is an equally universal level of mass culture, whereon the models of the universal level are being impressed. And there are the mass media which transmit the models from the upper to the lower one without any true feed-back. Thus our cultural system has become far more simple, and it works incomparatively better. And it has become much poorer.

What characterizes the upper level is the high degree of elaboration of its various codes, and the difficulty of translating from one into another. It is not only the case, (as C.P.Snow thought) of this levels being disrupted into two cultures, the scientific and the humanistic one, with very little communication between them. The disruption goes much deeper. The

code of nuclear physics is so different from the code of economics, (let alone from the code of poetry or of film making), that any effort to translate from one to the other seems misguided. One may thus speak of an explosive fission of our culture on the upper level. It consists of small clots of culturemes, which fly in various directions away from each other and break up again in that process. This is true for scientific models, of course, but almost as true for esthetical models. Such an explosion no longer merits the term "progress": it has made a qualitative jump from previous development, and has become different. Simultaneously it has become increasingly difficult to learn any one of the codes in which upper communication goes on, and this learning process may take up much of the time of life of those who participate in it. This again is the reason why the upper level of our culture has become hermetically closed to the vast majority. It is true that never before was higher education so widely distributed as it is now, which seems to suggest that many more now participate in higher culture than before the communication revolution. But this is an illusion. In reality all those millions of university students, art students and so forth are mere candidates for participation in any meaningful dialogue, and shall never "make it".

The upper level of culture is at present divided up into a great number of small committees, of closed circuits, which elaborate ever more refined models without any true communication with even the next committee right beside it. The models thus elaborated are directly available only to those very few who have learned its code, and who stand, more or less passively, around the committee in session. (We have a good image of that situation if we look at an art exhibition. But the same is of course true for scientific laboratories, for technical symposia, and for international economic meetings). It is easy to say that this is a characteristically "elitistic" situation, like it existed for instance in hieratic Egypt. But our situation is different. Not only is the élite at present alienated from what now may be called for the first time correctly "the masses", but each élitistic group is also alienated from all the others. And every further progress in such a situation means further alienation. In other terms: the various dialogues which go on on this level of culture result in an enormous amount of information which is more or less useless, because there is no appropriate code to transmit it to other dialogical groups, (let alone to the masses). The information inflation I mentioned in a previous lecture.

Paradoxically, however, this chaotic state of our higher culture, this entropy due to excessive information, is being sucked in and transformed into an amorphous steady flow by that meat grinder called "mass media". All those mutually incommunicable models are being translated into very simple "modes d'emploi" by being re-codified into the codes of TV, of the magazines

of commercial propaganda and so forth. To understand this miracle, two things must be considered. The one has to do with the fact that the upper level of our culture has become highly "value free": it elaborates very few models of behavior for reasons discussed here under the heading "the crisis of values". The mass media are therefore free to transform all epistemological and aesthetic models into ethical models. The other thing has to do with the high connotating quality of the codes of mass communication. Such codes are capable of translating almosst all messages into an amorphous broth, into that "night in which all the cows are grey". Thus mass media garantee the simple unicity of our culture by translating all the highly refined models of the upper level into very simple, universally valid "modes d'emploi" which structure our mass culture. And they can do so, because the manipulation of the mass media has itself become the result of one of those hermetical dialogues which go on on the upper level. Divulgation, vulgarisation has become, itself, a highly refined and exactly codified discipline performed within a closed circuit. The open broadcasting systems of mass culture are programmed in closed circuits.

Now this seems to be an extremely stable cultural system. A perfect domination of the lower by the upper level. Fortunately this is not so. Because the system lacks feed-back. It is an uninterrupted discourse of the higher toward the lower level, and all its dialogues are restricted to closed circuits on the upper level. This lack of feed-back, this alienation of each part of the system from any other, is a weakness of the system, because it renders it vulnerable to internal and external perturbation. Cybernetics show why this is so. And a reflex of those formal reasons of the vulnerability of our culture may be experienced in our own lives. We are frustrated by our culture, wether we participate in the mass culture, or whether we attempt to participate, (and have the oportunity to attempt it), in the élite culture. The frustration of the mass will be the subject of the next lecture. The frustration of the élite is due to the growing feeling of isolation. The models one elaborates are received only by very few intimates, and if they are divulgated, we no longer recognize them as ours. We cannot "realize" ourselves in such a situation, unless we become specialists, which means no longer fully human. Of course, our situation may come to transform us into something no longer human. But as long as it does not succeed in this, our frustration may be explosive. We may not succeed in changing our culture before it changes us. And some of the methods by which that may be done have been discussed in this course of lectures. I shall go back to them in the next lecture. Here let me end by saying that the avant-garde, in the sense of participation in closed circuit communication, is in fact a rearguard of our cultural system.