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# LANGUAGE AND CULTURE: ON THE POSSIBILITY OF AN EMERGING CARTOON-BASED LANGUAGE

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**Abstract:**
The paper argues that the use of text/ drawings in cartoons suggests a new kind of "video-language" combining a pictorial and a written textual language. The development is shaped both by the (historically new) technology of making movies and the division of labour between the left and right part of the human brain. The digital written languages speak mainly to the analytical left part of the brain, while the analogue pictorial language speak mainly to the totality grasping right part of the brain. Such a new language might offer better opportunities for an even development of human intellectual resources.

**Key words:**
Language, culture, brain, digital and analogue communication

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## INTRODUCTION

Looking at our culture in historical perspective, it is obvious that technological development has had a great impact on it. It is, for instance, difficult to imagine that after Gutenberg anything else but a book culture might have emerged. I will not try to explain how technology affects culture historically or otherwise. But it should be noted that it took a long time from the advent of the art of printing until, during the last hundred years, we may be said to have a hegemonic book culture. Likewise, if comic books, film and TV represent a challenge to this cultural hegemony, it surely will take time before they have shaped culture in their image.

A cultural hegemony will, like other power structures, have mechanisms protecting its status. In our book culture this appears in several ways. One of them is the bad conscience many parents still have when buying comic books for their children. Picture and

[1] The ideas presented below have earlier been published in Norwegian (Berge 1986) and presented to the Department of Sociology, University of Essex. I appreciate the comments received. Particular heartfelt thanks go to Bente Lohne for her incisive comments.

comic books do not belong to the "real" book culture. The mass consumption of cartoons is by many taken as proof of the moral and intellectual deterioration of the young. And here, I think, we are close to something important. We are not only concerned by the fact that young people consume fewer books than we think they should. We are may be even more concerned that they consume other books than those we think they should. The consequences of this consumption we do not know. But if it is not deterioration, it most certainly is defection. Many people today feel that the young are learning other values than earlier generations that they are growing up in a different culture.

LANGUAGE AND CULTURE: THE BOOK CULTURE

Culture is inescapably connected with language and its use. A culture is an acquired pattern for grasping, evaluating and valuing reality. The principal tool for doing this is language spoken and written.

The young ones, therefore, will not grow up without culture even if they seem to lack interest in the classical book culture. The alternative to our culture is not un-culture, but a different culture. And this other culture can be investigated. To give it a name, setting it apart from our book culture, we might call it a cartoon or a video culture.

Our western book culture reached a hegemonic status by, among other things, outperforming the embryonic pictorial languages e.g. in church art. Hence our present technology for producing and distributing pictures could not build on an established tradition of pictorial language. Communication by pictures - a pictorial language - had to be developed from scratch. And that, I think is the kind of situation where the Babel syndrome may be observed. Lacking an established tradition, the creative talents may roam. The multiplicity of pictorial languages today not only makes it difficult to keep up with what is being created by means of these languages, the general confusion also makes it difficult to get an overview of whatever is happening to the culture.

However, I think some interesting aspects may be noted if we simplify the situation to talk about just two classes of languages: written languages and pictorial languages. It may then be noted that everywhere the written languages are getting a supplementing language, maybe even a competitor, in the pictorial languages. The long-term result for written communications may even be some kind of cartoon-like language.
In this connection it is interesting to look at the range of writing technology presently used. The various writing systems may broadly be classified as pictographic, ideographic and phonemic. Chinese writing is ideographic and has evolved from a form of pictographic writing. Today very few pictographic writing systems are in use. The biggest is maybe the one used for the Nakhi-language spoken by ca 230 000 people in the Yunnan

Province in southern China (Katzner 1977). But if we look at the books produced by the Mixtec culture in pre-Columbian Mexico (Nuttall ed. 1975), we realize that the cartoon might be a more "natural" way of encoding information then a phonemic writing system. The phonemic writing systems, like the one used for English, rely on symbols for the smallest sounds used in pronunciation of the language. One can thus distinguish two kinds of writing systems, one based on drawings of objects corresponding to concepts used in the language and one based on symbols for the phonemes used in pronunciation of the language. Today the Chinese ideographs are the only significant writing system originating in pictures. Most of the rest are phonemic writing systems which, even though maybe thousands of years younger, seem to have proved far more successful (in terms of generating power for the cultures employing them).

The main advantage of ideographs as a writing system is that they may be interpretable across language barriers. Thus Japan is using Chinese ideographs, and even within China the different languages may be mutually incomprehensible when spoken. But the written text will be readable by all (who have learned to read).

## DIGITAL AND ANALOGUE COMMUNICATION

There is a basic difference in the way a written text like this one conveys information and the way a picture or pictograph/ideograph conveys information. The text conveys information from sender to receiver in digital form. Information is digitalized if it is cut into

separate recognizable bits which each one may be transmitted separately to be reassembled by the receiver. The information in a picture is in analogue form[2]. To understand the message of a picture one has to see the whole picture. And once the picture is seen the information is precisely established. E.g. the colour of a face will be established immediately and precisely. Nothing is left to imagination. In a text one could not be as precise about the colour without resorting to concepts from physics. In general one may say that the more precise information a text endeavours to present the more incomprehensible it will be. Instead of being precise, the written language has emphasized a distinction between important and unimportant information. Only those aspects which are judged to be important or essential to a phenomenon will be conveyed by the text. The unimportant details will be left to the reader's imagination. In this way the text will activate the reader in quite a different way than a picture. But on the other hand, a digitalized language may become a hurdle to the task of grasping reality if the essential aspects of different phenomena are changing more rapidly than it is possible to change the contents of the concepts of the written language.

Another difference between a text and a picture, closely connected with the digital/analogue distinction, is the ability to expose logical reasoning. In spoken (and written) languages there are the logical

[2] This statement should not be confused with the possibilities for transmitting pictures by digital technology.

symbols "not", "and" and "or". By means of these all logical statements may be expressed (see e.g. Whitehead and Russel 1910). Our present pictorial languages do not have these symbols. No picture of an apple may be read as "this is not an apple". Only through byways and prolonged sequences of pictures may something resembling such simple logical statements be achieved. And the more complex and abstract the logic one tries to express, the longer and more incomprehensible the pictorial sequences will become.

While a text may be efficient for communicating logical reasoning and a few essential data on reality, a picture is best suited to communicate large quantities of precise information on visible reality without any discrimination between essential and inconsequential information. And sequences of pictures outperform text in communicating relationships among many units of observation. The more units one tries to describe simultaneously, the less useful a textual description will be.

But the interesting aspects of a distinction between digital and analogue communication technology lies in the correspondence with recent discoveries in brain research.

## BRAINS AND CODES

The ability of a sequence of pictures to communicate relationships is very much linked to how our brain works. Considering that our eyes are constructed to convey pictures, a text seems to be a rather

inefficient way of communicating the image of, say, a landscape. Also the way our brain works is important. Our brains are divided in two halves which apparently to some large degree are working independently of each other. Brain research seems to indicate that the left half of the brain will analyse problems and check for logical rigour while the right half of the brain will try to grasp totalities and feelings (Ferguson 1980). This means that the digitalized text without pictures will speak mainly to the left half of the brain, while the analogue pictorial sequences mainly will talk to the right half of the brain. This has been proved by studying people with brain damages to either the right part or the left part. In particular it is interesting to note that the Chinese reading/writing ability resides in the right part of the brain. And in Japan where they have two writing systems, one called kana and the other called kanji, the kanji which is based on the Chinese ideographs, resides in the right part of the brain while the kana which is a phonemic writing system, resides in the left part of the brain (see Gardner 1983, pp.83).

The distinction between an analytical left brain and a totality grasping right brain, may perhaps help explain the antagonism between the book culture and the video culture[3], since it appears

[3] "Totality grasping" should perhaps be qualified. The totality referred to is the personal life world of each observer. And it may be more a tendency than an always achieved fact to integrate new experiences into the personality. Any kind of supra-personal "totality" like, for instance, the intellectual/ideological dimensions of videos which most often eludes the

that either the left or the right part of the brain tend to dominate the personality of the person (Gardner 1983, Blakeslee 1980).

The spoken language is not just words following each other like in a text. It is also intonation, rhythm and melody. These convey feelings and moods. They are interpreted by the right part of the brain and complement the pictures which the left part of the brain constructs out of the supplied words. Feelings and moods constitute an essential part of any message and their necessity for the message is the principal reason[4] for the importance of adults reading text to children. Before children learn to supply feelings and moods for themselves, a text will be exceedingly boring if not incomprehensible. As soon as children learn to read, they are supplied with suitable books. Most of these are supplied with pictures. There are more pictures for the younger ages then gradually less until the fully socialized member of the book culture emerges thinking the straight text without pictures the epitome of culture.

Presented with a picture our brain sees its visible content in one short moment. Registering the picture starts sequences of associations where identification and recognition of settings or situations creates an aura of feelings around the picture. This is

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watcher, is of course not grasped except as a secondary reflection by the left brain.

[4] This is a reason as seen from the perspective of the cultural system. There are, of course, other reasons why adults like to read aloud for kids, and why kids like parents to read for them.

done by the right part of the brain. Only after this grasping by the right part of the brain, can the left part start its analysis of what is important and what is unimportant in the picture. While feelings only come after the intellectual understanding of a text, the intellectual understanding only comes after the feelings when seeing a picture. This means that in sequences of pictures the speed with which they are presented is of critical importance. By analysing the sequence of pictures the left part of the brain will be able to reconstruct activities and model the actors in a way which may explain and make the feelings comprehensible. But if pictures arrive faster than the left brain is able to analyse them, we may have strong emotional experiences without understanding why and without being able to explain what we have seen. The ability to read the dramaturgy of a sequence of pictures is something which has to be trained. And just this ability may be the important difference between those having grown up with TV and those who have not had the opportunity to be trained in viewing. But not everyone who has "grown up with TV" has got such training. It does not come for free, or automatically. At the very least it takes time, both watching and digesting what has been seen. How the social milieu might affect this process is largely unknown.

## ACQUIRING VALUES

The most important part of a culture is the transmission of values, opinions of right and wrong, important and unimportant. Such views are seldom effectively transmitted through logical arguments. We acquire them as messages directed at our feelings.

This is not easily done by a written text since the reader has more conscious control of the feelings he or she experiences through the intonation, rhythm and melody which he or she imposes on the text. A pictorial language would do such a job much more easily, since it, to some extent, bypasses the analytical part of the brain, talking directly to the right part. I think developments in advertising are very suggestive in this area.

The comparative efficiency of pictorial media in transmitting emotional messages should be noted. But the really important aspect of pictorial transmissions of emotional messages is that they are affecting our personalities independently of our intellectual understanding. This may make it difficult for us to think through what we have received. Often the words and concepts needed to think through and discuss our experiences and reactions will be lacking. Hence it will be difficult for us to compare ourselves to our fellow human beings beyond the immediate feeling of group membership or distance which unconscious attitudes so easily provides.

Lacking words and concepts which may convey pictorial experiences to others, one way of expressing some of it may be to use one's body. Through roleplaying, clothing and cosmetics young people could be telling the world part of what they have experienced through the visual media. Popular discussions of the "YAP-culture", or before that the "hippie-culture", seem to have missed the possibility of a connection between the consumption of

visual media and the later changes of appearance in young people. The concern of what firstly film, then TV, and now video might do to young malleable souls was and still is quite pronounced, but very much cantered around the issues of violence and sex. Perhaps other and even more important aspects of what visual media do to us, were left out of the discussion precisely because even sophisticated critics were lacking the words and concepts to discuss it?

I think we have to take visual media far more seriously than we currently do. We have to know more about what attitudes and values are transmitted by the visual media and how it is done. One point of departure will be to look at the connection between culture and language.

## LANGUAGE AND CULTURE: A MODEL OF THE WORLD

Our spoken languages are digital. They select pieces of reality and name them. And they are useful precisely because and only as long as they select pieces of reality and divide our world into useful categories.

To some extent it can be said that language creates the world[5]. I would rather say that a language is a model of the world. And this model of the world, contained in a language, is every day tested

[5] The Sapir-Whorf hypothesis, see Hudson p.103, Whorf 1956.

against reality through the use of the language. Is the language a useful tool for our mind? Can we tell our surroundings what we want? Does the language contain words describing our experiences and the understandings we have reached?

The reality each one of us is living in and the experiences thus obtained vary considerably from one person to another. Today the variation may be greater than ever in our history. I think this may be a key to much of what is currently happening to our languages as well as to the use of pictures.

Our spoken, everyday languages developed in a simple world where the common stock of experiences lying behind our understanding of and feeling for language was large and of decisive importance. The language both created this reality by naming it and also served as an efficient tool by incorporating the important aspects of this reality as experienced. Today we rapidly are losing this common stock of experienced reality. Even if we still have the weather and the taxes to complain of, to most people they represent a small and increasingly unimportant part of their everyday existence. Life, health and future no longer depend on how wind and weather affects the crops of the year. What really constitutes important everyday experiences people increasingly tend to find in small specialized groups: our latterday tribal groupings, also called professions.

One important reason why social structure (defined by grouping people according to occupation, education, age and sex) actually explain differentials in behaviour is that such groupings of people actually correspond to significant differentials in everyday experiences. Each person, in his own way, is working on problems people from other groupings seldom or never experience in the same way. A significant part of everyday experiences can only be shared by people from the same group. This situation affects the use of the language. The contents and meaning of old words are slowly changing (with regards to nuances of interpretation) and new ones are constructed. Even when we try to avoid our professional jargon and foreign words, we are unable to guard against misinterpretations since the same word may evoke different associations in different groups (just ask what culture means). As language and experiences thus take separate ways for different groups of people, sub-cultures or even new cultures are being created.

In this society of emerging sub-cultures, however, the emerging pictorial languages are different in that they supplement written languages rather than replacing them[6] and their cultural dynamic is a bit different. For one thing: To quite a different degree than spoken and written languages, they are able to create the experiences they need to prove the existence of the world they

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6 The do-it-yourself instructions have shown a remarkable development. They seem on the verge of replacing the written instructions.

define. And by bypassing much of our intellectual faculties, the points of contact or lack of contact between the created reality and our normal, everyday reality easily escape our attention.

## PICTORIAL LANGUAGES

Pictorial languages are nothing new, even to our western culture. Earlier - in pre-Gutenberg times - the church had a stylized pictorial language helping its preaching. Today most people will have difficulties understanding the symbols then used. But there is every reason to suppose they served their purpose well. Painting also is a form of communication. The theatre combines pictures and words. But for obvious reasons both paintings and theatre found limitations in the ability of the created (generated) pictures to point beyond their visible content. With movies, development of this ability of communication took off. But only the animated cartoons had the ability to select parts of reality like words in the written language. Comparing writing and pictures, one finds that drawings are somewhere in between, containing both analogous and digitalized elements. This means that a drawing will challenge the fantasy of the viewer in much the same way as writing, as well as communicate large amounts of data quickly and precisely.

Films and cartoons have learned from each other. But the big dilemma for both of them is to find the best way to handle the spoken or written word. There seems to be much variation in the way which various film/ cartoon makers are able to get text and picture to work together. To what extent should they complement

each other? And perhaps most important: will the text tell the important messages or will the pictures tell them?

Some variations in the handling of text and pictures are easily seen in the menu of programs offered by a small broadcasting system like the Norwegian NRK which is relying heavily on imported programs. There seems to be a notable difference between American and British TV-films. Typically the American film will tell the story by pictures. It is action oriented[7]. The dialogue is only the minimum needed to resolve ambiguities or add some emphasis. The British TV-film, on the other hand, will, typically, be more like the reading of a novel. The pictures are just illustrations highlighting the running text.

Pondering why there should be such a difference in tendencies between American and British TV-films, it seems reasonable to look for its roots in cultural and historical differences.

One important feature of American society is the many different ethnic groups and the many different languages brought by immigrants. There was a great need for communication. But not everyone managed to learn enough English. Both the silent movie

[7] This has, of course, at least to some extent more to do with the type of story told, as with how the story is told. There are stories in which very little "action" takes place. But the relative number of stories of various types is significant. And with developing sophistication more varied stories can be told by means of the pictorial language alone.

and the first newspaper cartoons without text had a hungry audience which was well serviced. The knowledge of how to tell stories without words was brought into the sound movies and developed further to a point where the interaction of text and pictures may be changing into new forms of language.

In contrast to this development, it seems that the movies made in England must have taken the theatre as their model. With limits imposed on the pictures by a stage setting, a movie will get a much quieter dramaturgy. The movie will be filmed theatre. Consequently one has to make more use of text in order to tell the story.

Today I think the makers of music-videos are at the forefront of the development of new techniques for "selecting pieces of the world" and reconnecting them in order to tell something new and culturally more significant than the visible content of the picture suggests in isolation. It is probably premature to call the result a "language". There is for instance no symmetry between sender and receivers of messages. Not many receivers are able to reflect consciously on the messages they get. But even if they could, they would not be able to answer in the same kind of language. So far the video-language seems to be best suited for preaching, suggestion or manipulation. Fortunately those profiting from using the pictorial languages in such ways, have been as slow to realize their potential as the rest. Meanwhile the situation is rapidly changing. Local TV-studios mean many more people will gain

experience with regard to producing TV-messages. And the computer development may be even more important (see e.g. Chang, Ichikawa and Ligomenides (eds.) 1987). Shortly, small PC's with appropriate software for producing cartoons, will provide a new way of writing letters.

A GROWING CULTURAL CLEAVAGE

Young people today have grown up with Donald Duck and "bad" American TV-series. Besides learning them who knows what values some other effects should also be noted. While pictures transmit some types of information very efficiently, the ability to absorb this information is not inborn. It has to be developed. Precisely by reading/ watching cartoons and by hearing/ viewing a large amount of "pictorial" TV-films (all those "bad" American TV-series), this ability has been developed. But the increasing ability to grasp what is seen also have had consequences for the requirements of TV-entertainment. When one reviews what was considered top entertainment 30-40 years ago, it often seems slow to the point of boring. We get every point by teaspoons. The very tempo of TV-entertainment today is probably one source out of several of the generational gap now appearing in so many cultural areas.

The people who decide what good entertainment is in our national TV-monopoly, as well as the newspaper comments judging their choices, will all judge by the norms of the book culture in which they have grown up. The very noticeable bias in Norway in favour

of the more slow-moving British type of series may be taken as evidence of this. But the future of the book culture in the age of TV does not seem promising. The hegemony of the book culture has been challenged and none of us will be left untouched by the struggle.

The ability to consume pictorial sequences which each new generation is now developing, will, however, have wider ramifications than the mere making of new demands on TV-entertainment. Concomitant with this development a new attitude to time may be developing. The bookish school or the classical theatre will probably experience increasing difficulties in reaching their audiences. Their slow moving messages become boring just by being too slow in comparison to the new abilities of digesting information. This impatience with everything too slow may easily be misinterpreted as hostility towards the established messages rather than the established patterns of transmitting messages. If we can recognize it for what is it, we also may ask if our cultural values and attitudes have to be transmitted by a text in 15 minutes, if the same values and attitudes might be transmitted by a cartoon in 3 minutes. But such an attitude towards culture presupposes that its values and premises may actually be transmitted unchanged from a spoken language into a pictorial language. While this may be true in principle, it will never work out in practice.

A language is itself a structure shaping actions. In any language some messages will come through more easily than others. And

people using the language will, bound by its structure, more often transmit the easy messages than the hard ones. Thus a culture depending more heavily on pictorial languages than our own will certainly become a different culture.

Pictorial languages may more easily focus on individuals - like Superman - than on collectives like a city. One may speculate that the ease of focusing on individuals and small groups compared to the difficulty of forming pictures of certain kinds of abstract categories such as collectives like the nation or the state, would lead to a culture emphasising the individuals to the detriment of the collectives.

But such a development is not necessary if we do not let it drift down the road of least resistance because of lack of understanding of what is happening. I do not know if this particular possibility is in the making, what is true is that the transformation of our culture is already going on. To many people it seems to be frightening. Outcries because of young people's failing competence in standard textual languages are more and more frequently heard. As people trained in pictorial communication from birth take over production and distribution of films and TV, the changes will gain momentum. The traditional text without pictures will have an increasingly hard time keeping up. It will be too slow for brains and eyes trained in the much faster analogous communication of pictorial sequences. All those worrying about the status of writing in contemporary society are quite right in worrying. We are at the start of a

profound cultural transformation. But there is no point in just being opposed to the current transformation. At best it is wasted efforts. Better then to make an effort trying to understand what is happening, why it is happening and how we may be able to shape the development. Because the digitalized book culture we are leaving behind does, in my opinion, contain qualities we may easily loose in this process unless we consciously strive to preserve them.

Whether this implies that, through the exploration of how computers may be used to produce cartoons, we may end up by inventing a pictorial shorthand way of writing, perhaps somewhat like the Chinese language, or whether we should rather trust our present abilities with paper and pencil, I do not know. But the fact that text and pictures speak to different parts of our brain does perhaps promise a future where we may be able to develop and use the various parts of our intellectual resources more widely than we were able to while continuous texts without pictures were still defining the road to culture.

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