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The Constriction of Thought

The transition from mythological to rational thinking was a very gradual shift exactly synchronous with the development of urban concentrations and of metallurgy. The earliest beginnings of Mesopotamian writing date back to about 3500 B.C.,

some 2,500 years after the appearance of the first villages. Two thousand years later, toward 1500 B.C., the first consonantal alphabet appeared in Phoenicia, toward 750 B.C. alphabets were being used in Greece, and by 350 B.C. Greek philosophy was advancing by leaps and bounds.

Available evidence of the organization of primitive thought is difficult to interpret, either because it comes to us from very fragmentary prehistoric evidence or because our records about the thinking of Australian aborigines or Bushmen have been filtered by ethnographers who did not always take the trouble to analyze them. What we do know suggests a process wherein contradictions between different values are ordered within a participatory logic that at one time gave rise to the concept of "pre-logical" reasoning. Primitive thought appears to take place within a temporal and spatial setting which is continually open to revision (see chapter 13). The fact that verbal language is coordinated freely with graphic figurative representation is undoubtedly one of the reasons for this kind of thinking, whose organization in space and time is different from ours and implies the thinking individual's continuing unity with the environment upon which his or her thought is exercised. Discontinuity begins to appear with agricultural sedentarization and with early writing. The basis now is the creation of a cosmic image pivoted upon the city. The thinking of agricultural peoples is organized in both time and space from an initial point of reference—*omphalos*—round which the heavens gravitate and from which distances are ordered. The thinking of pre-alphabetic antiquity was radial, like the body of the sea urchin or the starfish. It only just began to master rectilinear progression in archaic forms of writing, whose means of expression were still very diffuse except for the purposes of account keeping. The process of the world's subsequent imprisonment in the toils of "exact" symbols had barely begun, and the summit of perfection in the handling of mythological thought was reached in the Mediterranean or in the China of the first millennium before our era. It was a time when the vault of heaven and the earth were joined together within a network of unlimited connections, a golden age of prescientific knowledge to which our memory still seems to hark back nostalgically today.

The process set in motion by settled agriculture contributed, as we have seen, to putting the individual more and more firmly in control over the material world. This gradual triumph of tools is inseparable from that of language—indeed the two phenomena are but one, just as technics and society form but one subject. As soon as writing became exclusively a means of phonetic recording of speech, language was placed on the same level as technics; and the technical efficacy of language today

is proportional to the extent to which it has rid itself of the halo of associated images characteristic of archaic forms of writing.

Writing thus tends toward the constriction of images, toward a stricter linearization of symbols. For classical as well as modern thinking, the alphabet is more than just a means of committing to memory the progressive acquisitions of the human mind; it is a tool whereby a mental symbol can be noted in both word and gesture by a single process. Such unification of the process of expression entails the subordination of graphism to spoken language. It avoids the wastefulness of symbols that is still characteristic of Chinese writing, and it parallels the process adopted by technics over the course of its development.

However, it also entails an impoverishment of the means of nonrational expression. If we take the view that the course humankind has followed thus far is wholly favorable to our future—if, in other words, we have complete confidence in settled agriculture and all its consequences—then we should not view the loss of multidimensional symbolic thought otherwise than we do the improvement achieved in the running ability of Equidae consequent upon the reduction of the number of their digits to one. But if, conversely, we tend to believe that human potentiality would be more fully realized if we achieved a balanced contact with the whole of reality, then we may ask ourselves whether the adoption of a regimented form of writing that opened the way to the unrestrained development of technical utilitarianism was not a step well short of the optimum.

Beyond Writing: The Audiovisual

With alphabetic writing, a certain level of personal symbolism is still preserved. The reconstruction that the eye performs in reading the written word is still an individual one. There is a margin which, though limited, is indisputably present, and it ensures a personal interpretation of phonetic matter. Moreover the images evoked by reading remain the property of the reader's imagination, which may or may not be very rich. When it replaced ideographic symbols by letters—when, as it were, it changed levels—the alphabet did not abolish all possibilities of recreation. To put it differently, alphabetic writing, while meeting the needs of social memory, still allows the individual to reap the benefits of the interpretative effort he or she has to make.

We could ask ourselves whether, despite the current vast increase in the output of printed matter, the fate of writing is not already sealed. The emergence of sound recording, films, and television in the past half-century forms part of a trajectory that

began before the Aurignacian. From the bulls and horses of Lascaux to the Mesopotamian markings and the Greek alphabet, representative signs went from mythogram to ideogram and from ideogram to letter. Material civilization rests upon symbols in which the gap between the sequence of emitted concepts and their reproduction has become ever more narrow. This gap or interval is narrowed still further by the recording of thought and its mechanical reproduction. We might wonder what the consequences of this narrowing will be. Curiously enough, the mechanical recording of images has, in less than a century, covered the same ground as the recording of the spoken word did over several thousands of years. First, two-dimensional visual images became automatically reproducible through photography. Then, as with writing, came the turn of the spoken word, reproduced by means of the phonograph. Up to that point the mechanism of mental assimilation had remained undistorted: Photography, being purely static and visual, left as much room for freedom of interpretation as the bisons of Altamira had left to the humans of the Paleolithic. The auditive sequence imposed by the phonograph likewise allowed room for personal and free mental vision.

This traditional state of affairs was not appreciably altered by the arrival of silent films. The silent reel was supported by sound ideograms of an indeterminate nature supplied by a musical accompaniment that maintained a distance between the individual and the image imposed from the outside. A radical change occurred, however, with the coming of sound film and television, both of which address the faculties of sight, motion, and hearing at the same time and so induce the whole field of perception to participate passively. The margin for individual interpretation is drastically reduced because the symbol and its contents are almost completely merged into one and because the spectator has absolutely no possibility of intervening actively in the "real" situation thus recreated. The spectator's experience is different from a Neanderthalian's in that it is purely passive, and different from a reader's in that it is totally *lived* through both sight and hearing. From this dual point of view, audiovisual techniques really seem to represent a new stage of human development—a stage that has direct bearing on our most distinctive possession, that of reflective thought.

From the social point of view, the audiovisual indisputably represents a valuable gain inasmuch as it facilitates the transmission of precise information and acts upon the mass of people receiving it in ways that immobilize all their means of interpretation. In this respect language follows the general evolution of the collective superorganism and reflects the increasingly perfect conditioning of its individual cells. Can a genuine return by the individual to earlier stages of figurative representation still be envisaged? Writing is unquestionably a most efficient adaptation of

audiovisual behavior, which is our fundamental mode of perception, yet it is also a very roundabout way of achieving the desired effect. The situation now apparently becoming generalized may therefore be said to represent an improvement in that it eliminates the effort of "imagining" (in the etymological sense). But imagination is the fundamental property of intelligence, and a society with a weakened property of symbol making would suffer a concomitant loss of the property of action. In the modern world the result is a certain imbalance, or rather a tendency toward the same phenomenon as that taking place in the arts and crafts: the phenomenon of loss of the exercise of the imagination in vital operating sequences.

Audiovisual language tends to concentrate image making entirely in the minds of a minority of specialists who purvey a completely figurative substance to the individual. Image makers—painters, poets, or technical narrators—have always, as far back as in the Paleolithic, been a social exception, but their work always remained incomplete because it called for the participation of the image users, whatever their cultural levels. Today a separation (extremely profitable to the collective) is in process of being wrought between a small elite acting as society's digestive organ and the masses acting purely as its organs of assimilation. This development is not confined to the audiovisual media, which are merely the end point of a general process that involves the whole of human graphic activity. Photography did not at first cause any change in the intellectual perception of images; like all innovations, it was supported by what already existed. Just as the first motor cars were horseless carriages, so the first photographs were portraits and scene paintings without color. The process of "predigestion" did not begin until the emergence of cinematography, which completely changed the concept of photography and drawing in the purely pictographic sense. The sports photograph and the comic strip, together with the "digest," have also contributed to separating the image maker from the image consumer within the social organism.

The impoverishment is not in the themes but in the loss of personal imaginative versions. The number of themes in popular (as indeed in highbrow) literature has always been limited, so there is nothing extraordinary about seeing the same very handsome and exceptionally strong superman, the same amazingly attractive woman, and the same more or less stupid giant appear successively in the midst of Sioux Indians and bisons, in a pitched battle during the Hundred Years' War, on board a pirate ship, in a police car roaring off in pursuit of gangsters, or in a space rocket traveling between two planets. Endless repetition of an unchanging stock of images goes hand in hand with the tiny amount of free space that the exercise of emotions related in one way or another to aggressivity or sexuality leaves in the indi-

vidual consciousness. That the comic strip's ability to render action in a convincing manner is far greater than the old "penny dreadful's is not in doubt: In the latter a punch in the face was an incomplete symbol, whereas Superman's left hook to the traitor's jaw leaves nothing to be added by way of traumatic precision. Everything assumes a totally naked reality, to be absorbed without the least effort, the recipient's brain perfectly slack.

In this first part of the book language has been considered on the same footing as technics, from an entirely practical point of view and as a product of the biological entity called the "human being." The initial balance between the two poles of the field of responsiveness connects our evolution with that of all animals in which the performance of operations is divided between the face and the forelimb. But by implication it also connects the existence of language with that of manual techniques. What we know about the evolution of the brain allows us—so far as new techniques are concerned—to analyze the connection between erect posture, the freeing of the hand, and the opening up of areas of the brain that were the preconditions for the exercise of physical abilities, on the one hand, and the development of human activity on the other. The proximity, inside the brain, between the two manifestations of human intelligence is so striking that despite the lack of fossil evidence, we must accept that human language was from the very outset different in nature from the language of animals—that it was the product of reflection between the two mirrors of technical gesture and phonic symbolism. This hypothesis concerning humans who existed before *Homo sapiens*—humans going as far back as the remotest Australanthropians—becomes a certainty when we discover the close synchronism between the evolution of techniques and that of language. The certainty is confirmed when we see how closely, even for the very purpose of expressing thought, hand and voice remain intimately linked.

Parallel with the extraordinary acceleration of the development of material techniques following the emergence of *Homo sapiens,* the abstract thought we find reflected in paleolithic art implies that language too had reached a similar level. Graphic or plastic figurative representation should therefore be seen as the means of expression of symbolic thinking of the myth-making type, its medium being graphic representation related to verbal language but independent from phonetic notation. Although no fossil records of late Paleolithic languages have come down to us, evidence fashioned by the hands of humans who spoke those languages clearly suggests that their symbolizing activities—inconceivable without language—were on a level with their technical activities, which in turn are unimaginable without a verbalized intellectual supporting structure.

The parallelism continued at every stage: When agricultural sedentarization gave rise to a hierarchical and specialized social system, a fresh impetus was imparted simultaneously to technics and language. If the topographical structure of the cerebral cortex of primitive anthropoids accommodated the joint development of the material and the verbal, the topographical structure of the urban superorganism reflected the same contiguousness. When the economic system became transformed into capitalism based on metallurgy and grain, the transformation engendered both science and writing. When techniques within the city walls began to prepare the ground for the world of today, when space and time became organized within a geometrical network that captured both the earth and the heavens, then rationalizing thought began to overtake mythical thought. Symbols were linearized and gradually adapted to the flow of verbal language until graphic phonetization finally culminated in the alphabet. From the beginning of written history, as in still earlier times, there has been a complete reciprocal linkage between technics and language, and the whole of human development depends upon this fact. The expression of thought through language found an instrument with infinite possibilities in the use of alphabets, which totally subordinated the graphic to the phonetic. All previous forms remain alive, however, although to varying degrees. Further on in this book we shall try to demonstrate that a significant portion of our thought diverges from linearized language in the effort to grasp that which does not lend itself to strict notation.

Although the interplay between the two poles of figurative representation—between the auditive and the visual—changed considerably with the adoption of phonetic scripts, the individual's capacity to visualize the verbal and the graphic remained intact. The present stage is characterized simultaneously by the merging together of the auditive and the visual, leading to the loss of many possibilities of individual interpretation, and by a social separation between the functions of symbol making and of image receiving. Here again the parallelism between technics and language is clearly apparent. Tools detached themselves from the human hand, eventually to bring forth the machine: In this latest stage speech and sight are undergoing the same process, thanks to the development of technics. Language, which had separated itself from the human through art and writing, is consummating the final divorce by entrusting the intimate functions of phonation and sight to wax, film, and magnetic tape.