

LEVELS OF CULTURAL COMMUNICATION

J. S. BOIS *

THE WORD communication is very much in use today. Years ago it brought to mind the social art of conversation, the persuasive techniques of rhetoric, and the rules of formal logic. In our generation the general public bought it wrapped up in a neat package, a lively little book that sold by the million in many languages, *How to Win Friends and Influence People*.

In scientific literature, however, the word communication evokes a teeming crowd of notions and techniques. They come from widely separated areas of scientific endeavor, from physics, electronics, thermodynamics, neurology, psychology, epistemology, and mathematics, and they mill about in temporary confusion until someone succeeds in organizing them into a team of human energies disciplined for the immense task of establishing understanding throughout mankind.

Communication is the meeting place of negative entropy; of bits, noise, reverberatory circuits; of coding and decoding; of receivers, transmitters, and channels; of overload, underload, and jamming; of relays, refractory periods, latency, summation characteristics; of semantics, levels and orders of abstraction, multiordinality, circularity, and propositional functions; of input and output; of the nervous system as a network with cell-assemblies and phase-sequences; of autonomous central processes revealed by electroencephalography and corresponding attitudinal sets, behavior determinants and semantic states; of reading-ability levels; of human interest ratings; of speech engineering; of linguistics, meta-language, and biological mathematics; of visual aids; of frames of reference; of intrapersonal dynamics; of interpersonal communication nets from one-to-one to centrifugal and centripetal group exchanges; of space-binding and time-binding cultural phenomena; of depth psychology; of non-directive interviewing;

* Dr. Bois, of Bois, McCay & Associates, Ltd., of Montreal, Canada, is a psychologist and management consultant. He was president (1948-49) of the Canadian Psychological Association, and is now a member of the Board of the International Society for General Semantics. His paper was presented before "Information Abroad," a group of public relations officers of Canadian firms and Government agencies dealing with foreign trade, at their annual meeting at Seignior Club, P.Q., Nov. 17, 1955.

of social pressure; of acculturation; of culture as a superpersonal network of values codified by the cumulative wisdom of past generations.

This heterogeneous list of notions describes very imperfectly the status of communication as a science in the making. As an applied science, communication is just as multiform. Practitioners in all types of public relations avidly grab among those notions and techniques as many as they can master and set to work for their purposes.

COMMUNICATION from culture to culture is a topic that I would rather hear discussed by an anthropologist. My interest in anthropology is great, but my knowledge is limited. As a sister science in the behavioral field, anthropology has borrowed from psychology, psychoanalysis, sociology, and epistemology. It has also submitted to the family council of these sciences the problems it is trying to solve. One of these problems is that of devising a scale to order, and possibly measure, the levels of cultures. In *Anthropology Today* (1953) Clyde Kluckhohn contributes a chapter on "Universal Categories of Culture" in which he states: "It is, unfortunately, the case that up to this point anthropology has not solved very satisfactorily the problem of describing cultures in such a way that objective comparison is possible" (p. 520).

If we turn over this problem to the general semanticist, we see him ready to offer a tentative scale of levels of cultures, consistent with his general theory of man as a time-binding form of life. In *Science and Sanity*, Alfred Korzybski writes: "We may distinguish three periods of human development as characterized by their standards of evaluation: (1) The primitive period of literal, general, and unrestricted identification. . . . (2) The infantile, or aristotelian period of partial or restricted identification. . . . (3) The adult, or non-aristotelian, or scientific period based on a complete elimination of identification. . . ." (p. 194).

The first period, as described above, surely brings to mind Lévy-Bruhl and his description of the mentality of the primitive. The distinguishing of the second and third levels is original with Korzybski, and it is far from being generally accepted today.

A FRENCH thinker, Gaston Bachelard, a scientist-philosopher who is now professor of the history and philosophy of science at the Sorbonne, is the only outstanding European authority I know who has recognized in Korzybski's scheme of thinking a promising frame of reference for the stages of cultural development. To be more exact, I would say that, in consenting to become an honorary trustee of the Institute of General Semantics and in devoting many pages of his book *La Philosophie du Non* (1940) to what he calls "the very important work of the non-Aristotelian school" (p. 127), Bachelard did not put himself in the position of a disciple of Korzybski. He rather acknowledged publicly that both he and Korzybski were following parallel paths in their

survey of heretofore unmapped territories of human experience. His own description of the stages of human development is more explicit than Korzybski's. It covers five steps instead of three, and it gives us many more reference points.

Bachelard suggests a scale to measure, at least qualitatively, the development of man's systems of evaluation, from the appearance of *Homo sapiens* to the emergence of the scientist of today. He sees these phases recapitulated in the cultural development of the individual, from his first contacts with his immediate environment as an infant to his most advanced views as a participant-observer in the whole cosmos when he reaches adulthood.

Bachelard claims that the evolution of man's thinking about himself and the world goes through five phases: (1) primitive realism, (2) empiricism, (3) classical science, (4) modern science, and (5) advancing science. In my own work with management consultants and business executives I follow the same order, using different labels. I speak of the five stages of human thinking: (1) the sensing stage, (2) the classifying stage, (3) the relating stage, (4) the postulating stage, and (5) the unifying stage. These phases can be displayed and compared on a histogram that Bachelard calls the *epistemological profile*.

1. *Primitive Realism*

THE STAGE of primitive realism, of sensing, is characterized by unquestioning identification. Man's perception is the measure of things and of their qualities. The event is what the term says it is. The universe is seen in terms of subjective values, which are blindly accepted from the cultural environment, are not re-examined, questioned, or doubted.

Most human reactions at this stage are conditioned reflexes, automatic like those of a trained animal. Mathematics is limited to the sensory span: "One, two, three . . . infinity." Whatever abstraction takes place is animistic, mythological, or purely verbal-reifying (projective).

Simple experiments show that there are in most of us some remnants of this primitive stage: if I describe a lemon to you, your mouth waters; if I lift one after the other three cans of equal weight but different sizes, I feel that the biggest is the lightest; I can't bring myself to cut my mother's eyes on a photograph, etc.

Primitivism in its pure state is not easily found today, at least among nations with which we have to communicate politically, economically, or socially, but there are vestiges of it in the most highly cultured groups. It is not only in India that there are sacred cows revered by blind tradition. There is a primitive in every one of us who reacts violently to what he considers a desecration of symbols, principles, and institutions that are beyond critical examination. A public relations program that ignores these "sacred" elements encounters a resistance that no logical arguments can overcome.

2. *Empiricism*

WITH the Greek philosophers comes a new era, the empirical or classifying stage. There is a check and an analysis of naive experience. Things are classified according to their "nature" and not according to their mystic properties. The principle of identity becomes central: a thing remains identical with itself, it has an essence that is permanent, and qualities that can be differentiated.

The principle of causality takes hold: events are not triggered off by the whims of the gods or the spirits, but they are determined by the "nature" of things. A stone falls down to its "natural" place, and is always expected to do so, because of its "inherent" quality of heaviness.

Observation becomes systematic, and the consistency of the thinking processes is safeguarded by the rules of logic. Nature is broken into elements that can be counted, measured, and compared. Experimentation comes later with differentiation, classification, and counting (Gallup polls, Kinsey reports, correlation, etc.). Statistical averages shift the emphasis from "essence" or "nature" to the "typical" or "normal" case, but the classificatory orientation remains.

This is the stage of elementalistic thinking, of democracy in the sense of counting noses, of deciding an issue by striking a balance of the pros and cons, of rugged individualism, of the pride in "the biggest in the world," of condensation of literature into digests, of achieving things in record time. In science and in business, we seek "the" cause of "the" problem.

Behind this panoply of "scientific" tools and rigorous rules of logic, primitive identification is still hiding. Man boasts of being "objective," he implicitly believes that his mental constructs mirror the structure of the world. He does not realize that he is looking at the world through the distorting windows of the language and symbol systems that he takes as self-evident.

It requires very little reflection to recognize that many of our cultural postulates belong to this classifying and counting stage.

3. *Classical Science*

FROM the study of things and their "inherent" qualities, we pass to classical science and the study of dynamic relations. We do not theorize on "heavy" and "light" bodies; we experiment with "falling in free space," with "rolling down an inclined plane." Galileo "idealized the phenomenon," writes Morris Kline, in *Mathematics in Western Culture* (1953), "and by imagining motion taking place in a pure Euclidean vacuum he discovered the correct fundamental principle. His trick was to geometrize the problem and then obtain the law" (p. 193).

Man "dematerializes" his observations to some extent; he passes from elementalistic and additive thinking to relational and multi-dimensional thinking. There is no single cause, but a lawful interaction of factors. The whole is not the sum of its part, it belongs to a higher order of dimensionality. Leadership

is not viewed any longer as the "inherent" attribute of an outstanding individual; it is a function of group dynamics. We speak of psychosomatic medicine, of the stress syndrome, of operations research, of multi-valued logic. From being nominalistic, as in Cow₁, Cow₂, Cow₃, etc., abstraction has become relational, as in $a^2 = b^2 + c^2$.

This is the glorious reign of mathematics, of relations expressed in formulas that are more basic, more "real" than what we can observe and measure. They open new vistas into the unknown: Neptune is discovered with the pencil of the astronomer before it is located in the sky with the telescope; Mendeleff determines the atomic weight and the chemical properties of elements unknown in his days; science has achieved predictability by extrapolation; determinism is accepted as the fundamental law of the universe.

It is the phase of full-handed physical science emptying upon an avid world the cornucopia of its riches. The social sciences emulate these achievements: economists think in terms of graphs and cycles; psychologists look for the laws of psycho-physics; in the science of administration linear programming sharpens and projects far ahead the guesses of intuitive judgment.

At this stage the doctrinal and technological rivalry of the communistic and the capitalistic halves of the world reaches its peak.

4. *Modern Science*

MODERN, or relativistic, science is born of the reactivation of logic and mathematics by a more searching epistemology and the use of deliberate postulation. Instead of contenting himself with the success he had already obtained by using his mathematical tools, man, prompted in some cases by baffling experiments, working in other cases on a ruthless examination of his long accepted assumptions, set himself to the task of testing the tools themselves. He found that his formulas are not "laws" of nature, but a cleverly devised set of conceptual patterns. He questioned these patterns, and asked himself whether the formulas that had already given such spectacular results could not be re-analyzed.

Is the equidistant parallel a necessary adjunct to the straight line? Is the simultaneity of two events an incontrovertible notion? Is "objectivity versus subjectivity" a valid formulation? These questions bring to mind the new geometries, Einstein's physics, Bentley's kinematic inquiry. By becoming aware that scientizing is postulating, man has opened for himself a new and limitless world of possibilities.

From the relating to this postulating stage, the jump is no less spectacular than from stage 2 to stage 3. "There is no transition from the system of Newton to that of Einstein," writes Bachelard (*Le Nouvel Esprit Scientifique*, 1949, p. 42). "We did not pass from the first to the second by piling up detailed information, by measuring with double accuracy, by sharpening the fine edge of accepted principles. Quite the contrary. Nothing but a great effort at self-renewal

made it possible. The passage from classical science to relativistic science is a process of transcendental, not of amplifying induction. Naturally, once this induction is achieved, we can, by reduction, bring out of it the Newtonian system. The astronomy of Newton is in the end a particular case of Einstein's pan-astronomy, as the geometry of Euclid is a particular case of the pan-geometry of Lobatchevsky."

The noumenon, refined by a searching epistemology, reverts to the world of phenomena. It discovers and creates in this world events that primitive realism, empiricism, and classical science could not even conjecture. From mathematical physics, this postulating attitude is reaching into the social sciences, as can be seen in psychologist Floyd H. Allport's recent book entitled *Theories of Perception and the Concept of Structure* (1955).

It is no wonder to me that scientists who work at this level see the Iron Curtain as a myth that is bound to vanish in thin air some day or other.

5. *Advancing Science*

FOR a non-mathematician the stage of advancing science, or unification, is most difficult to describe. I see it as different in degree from stage 4, and Bachelard himself declares that the differences between the two are not easy to detect.

In his progress from primitive realism onwards, man has dematerialized his concepts, disengaged their formal structure. He questioned the validity of his sensory perceptions as a criterion; he now questions the consistency of his mental constructs as a rule he must follow. From "as if" he passes to "why not?" Logical contradiction does not stop him any more. Motion of energy can be viewed as progressive transfer of vacancy; why not? Non-violence can be viewed as a more potent weapon than tanks and guns; why not? Qualification is both at the lower and at the higher limits of quantification; why not?

At this stage Bachelard becomes lyrical. He quotes Mallarmé and exclaims, "The possible is homogeneous with Reality itself" (*op. cit.*, p. 56). Elsewhere he says, "Reality is only one particular case of the possible" (*ibid.*, p. 58). By a circuitous detour, we have come back to a new immediacy of personal experience, where passivity and creativity blend.

F. S. C. Northrop of Yale, in his Alfred Korzybski Memorial Lecture given in New York in April 1954, refers to this stage in the following terms: "It is this silent level of knowledge, the immediate portion of our being and of all things, that we in our Western culture have tended to lose or to dismiss as of secondary importance. At this point we can learn from our impressionistic painters, from existential philosophers, and from the Orient." (*General Semantics Bulletin*, Nos. 16 & 17, 1955, p. 24.)

Do I suggest that we can bring the whole culture of a nation, of a particular group, or of an individual to a point rating on this scale? No. This scale should be used as the basis of a profile, or, to change the analogy, as a grid upon

which we can project a spectrum. We can picture this spectrum as extending from the infrared of stage 1, the unanalyzed, unrationalized sensing experience, to the ultraviolet of stage 5, where the powerful immediacy of cosmic consciousness transcends the discriminative power of our discursive brain.

A spectral analysis of a sampling of an individual's key concepts would give us the range of his development and the most frequent location of his semantic reactions. The broader his development, the more stable and accessible he will be to messages that come on different bands of the scale. The narrower his development, the less accessible he will be to messages that come on frequencies outside his tuning possibilities. Communication may be lost. In the lower half of the spectrum there may be jamming of a message that clashes with the phase sequences of his own ever-active network of doctrines and values. Communication will become a painful struggle between the sender and the receiver.

LET US venture some illustrations: How did you feel as I scanned over the spectrum rapidly? At what stage did we clash? At what stage did my message fade into nonsense for you? At what stage did my formulations give you the feeling that we were in phase, and reacting jointly in comfortable harmony?

Or, let us compare, very superficially indeed, Canada and the United States in the field of international affairs. Because of our geographical location, our history, our economy that depends very much on international trade, our political situation first in an Empire and later in a world-wide Commonwealth of free nations, I might guess that our semantic reactions as a nation are mostly in area 3, the relationship stage of keenly felt interdependence. The United States are very different in the corresponding aspects of national life: they left the family of English-speaking nations earlier, developed a stronger individualism, are more self-sufficient in their economy, and their technological advances can be taken as a measure of their stature in the world. So without belittling Roosevelt's good neighbor policy or Truman's Point Four program, I see a cluster of their semantic reactions within area 2, that of empirical values, balance of power, and doctrinal certainty.

India has been greatly influenced by Gandhi's philosophy of non-violence, which I would place in area 5. To interpret this philosophy in terms of the left-hand side of the epistemological spectrum is an impossible task, like trying to argue for the wave theory of light against the particle theory, or claiming that the temperature of the electron could and should be measured.

Circularity comes into play here also, as it does in interpersonal relations. We expect other nations to react as we would under similar circumstances, or at least in conformity with what stage of development we assume they have reached. A retrospective study of the Bandung Conference and its impact on the Western world might be illuminating if attempted within the frame of reference I propose here.

Levels of "Business Culture"

I SUGGEST that the reader examine this scheme and try it as a possible working tool because I have used it myself in situations that I consider similar. I found it simple, manageable, and productive of countless applications. In management consulting, for instance, it helps me determine roughly a man's level of "business culture."

Business may mean the unsophisticated play activity of a child who sells home-made lemonade to the passers-by. The child has a very vague notion of his costs, and *the money he takes in is the measure of his profits*. I remember the village general merchant of my younger days who lived on what he sold, unconcerned with turnover, and accumulating on his dusty shelves articles that remained there for years. When he took stock it was sufficient for him to know that he had lived in relative comfort. The balance that he had in cold cash, plus a rough estimate of what people owed him, was the measure of his prosperity. He was in business at the primitive stage.

Business at stage 2 is focused on *figures, bookkeeping, and statistics*. We read about it in financial pages, in declarations of dividends, in direct comparison between the sales of last year and this year, in overall figures that provide no analysis of the component factors of success, growth, or recession.

At stage 3, a more complex cost accounting comes into play, and the *relations* between market research, advertising, merchandising, production, and administrative overhead are taken into account. At the organizational level functions are specified and interrelated; production is studied scientifically; there may be job evaluation, work simplification, mechanization of office procedures, personnel selection, etc.

At stage 4, the organization enters an even more fluid condition. It becomes more responsive to the changing general economy. New products are added that have little in common with the staples of previous years, the whole system undergoes a revolution, sales organizations go into production, new merchandising operations are created, *managers become generalists*, highly trained specialists push forward with research in the basic sciences from electronics to group dynamics and sociometry.

In stage 5 we see the creators of new enterprises who have the genius of *feeling, as it were, the pattern of things to come*. Their semantic reactions seem to be tuned to the unexpressed wants and desires of humanity on the march, and they create as they go the conditions which will give shape to the growth of our economy. Some of them become living symbols of irreversible changes; for instance, Henry Ford, who introduced the era of the automobile for the common man.

NOW, here are three top executives in so many firms, Al Jones, Fred Brown, and Jack Smith. When I listen to Jones, I recognize a recurring theme in most of his statements. "We are in business to make profits," he says. And

profits for him, are centered in stage 2, that of the balance sheet taken as the adequate picture of what is going on.

Fred Brown does not ignore the overall figures, but his center of interest is in stage 3. "My job is to perpetuate this business and to expand it," he repeats in some form or other. He is concerned with the streamlining of methods and procedures; he looks for personnel techniques that have produced results in similar organizations; he keeps an eye on his competitors; he attends the meetings of professional associations where he exchanges views and experiences; he reads *technical magazines and business publications*; he may ask for the services of well-established consulting firms.

Jack Smith has gone through these stages, and he easily keeps abreast of whatever appears within them that lightens his task and frees his initiative to push forward. He may say, "Our business is determined by the customer," or "Our function is to serve the client." He is not tied to anything definite or unchanging. He may or he may not have the glowing spark of the genius of stage 5, but he has some vague intuition that nothing stays put in this world, and he searches boldly on all fronts of his enterprise. He does not imitate, he creates and takes the risk of innovations in design, in production, in merchandising, in personnel development, in research of all kinds. He is not limited to figures that tell of the past; he is not hamstrung by methods that were safe yesterday and may prove inadequate today or tomorrow; he sees his task as a ceaseless renewal of patterns of operations in a world of process.

THERE may be an infinite variety of combinations of the types I have just outlined. You have the stage 5 genius who thinks as a super-shop-machinist, and ignores the figures and the organizational techniques of stages 2 and 3. You have the creative inventor of methods and techniques that appears one generation too early, and disregards the financial common sense of the pluggers of stage 2. You have the system-addict who lets himself and his organization become clogged with techniques, methods, and committees.

For a man who lives at stage 2, a project at level 3 or 4 will sound like useless theory, wild and dangerous. To the man who expects a cure-all from the operational techniques of stage 3, it seems a waste of time and money to invest in the individual development of his key men as required in stage 4. For the creative manager who functions at stage 4, a managed-expenditure budget and long-range objectives are of primal importance.

We have noticed that there is in most cases a close relation between a man's general cultural development and his tendency to function at one stage or another. The culture we accept becomes the framework of the world in which we live. This man-made world seems to be endowed with a semantic homeostasis that tends to keep within a range our diverse activities: family life, education, art appreciation, religion, business, politics, etc. To communicate effectively from one level of culture to another is an achievement that calls for unending resourcefulness.