

LOGIC AND PSYCHO-LOGICS

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DURING the discussion period that followed a talk I gave on general semantics a few years ago I was asked a question that baffled me. It ran like this: "Isn't general semantics something similar to symbolic logic? Both deal with better methods of thinking, don't they?"

I gave one of those yes-and-no answers that satisfy nobody, the speaker least of all. I was not prepared for such a question. I had never given much thought to general semantics as compared to symbolic logic. I felt vaguely that they had a little to do with each other, but I could not say much about how they are related.

The experience was a great help to me. It forced me to survey a corner of my inner world that I had not visited for a long time. In this inner world of my thoughts and theories, symbolic logic is one of those esoteric disciplines that I do not apply in the course of my everyday life. I see it as a refinement of classical logic, a chest of sharp mental tools reserved for specialists. I see general semantics as something less specialized than that. For me it is almost a denial of classical logic. I see it as an all-purpose tool designed for practical do-it-yourself wisdomship.

I find it difficult to talk sense as I express my views here, because every word that I use may evoke in the reader a crowd of implications that I do not mean. Take the words *observing*, *thinking*, and *communicating* that my well-meaning publisher put on the jacket of my book, *Explorations in Awareness* (New York, 1957). They are misleading words, in the sense that they start you going along well-beaten cultural

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paths in directions far removed from where I want to take you.

Consider the word *thinking*, for instance. It refers to an activity that was classified centuries ago. It seems that everybody knows what thinking is and what it is not. Long before Mr. Watson of IBM made it a slogan in his firm, it was taken as the supreme characteristic of man. You use your brain to think, don't you? And what makes us different from animals, according to Korzybski, is that quarter inch of cerebral cortex with which we do our thinking. Auguste Rodin made a statue called "The Thinker" where you see man left to his natural powers tensed up in deep reflection. Electronic engineers have built mechanical "brains" that do their thinking by electricity, quickly and accurately.

The more you think about thinking in this direction, the farther you are from where I want to take you. Forget "The Thinker," forget Univac, forget the cybernetics of Norbert Wiener, forget symbolic logic and Boolean algebra. Stop looking at thinking as a distinct activity dissected out of man and kept functioning artificially like a tissue culture in a flask of nutrient solution.

When you and I think, a great deal more than "pure" thinking is going on within us and around us. Our past has much to do with our present thinking; our anticipated future influences it; our environment gives it a peculiar twist. In fact, thinking is just one aspect of our total semantic reactions. It is not always the most important aspect. It is occasionally subservient to other aspects: we rationalize to justify our past decisions, to give vent to our feelings, to make ourselves accepted by our social environment, or to obey some unconscious urges that we cannot perceive at the moment. There is also a chemical aspect to our semantic reactions: LSD and tranquilizers affect our thinking. There is an electrical aspect as well: a plain electroshock will change stubborn thinking patterns.

SYMBOLIC LOGIC and all less sophisticated techniques of guided reasoning deal with only one aspect of our multi-

faceted semantic reactions. General semantics attempts to take all those aspects into account, concurrently and inter-relatedly. An expert in symbolic logic is like an expert in a particular sport; a well-trained semanticist is a well-rounded psychological athlete. His model is not Rodin's "The Thinker" in his tense attitude, not the electronic robot that flashes answers in fractions of a second. His ambition is to keep himself in a dynamic balance within himself and with his environment, aware of his past and realistic about his future, actualizing himself and his own personal world as he proceeds from commitment to commitment.

This calls for new skills and techniques. At the thinking level it takes into account phenomena that standard logic did not bother with; it introduces terms and practices that are entirely new. Consciousness of abstracting becomes a central theme; levels and orders of abstraction provide a scale that runs from the particular to all-embracing universals, from extension to intension; multiordinality solves many logical paradoxes; circularity and self-reflexiveness put the thinker back into the act; additive thinking is corrected with the structural more; we speak of model building and of dimensionality; we draw epistemological profiles to assess the relative obsolescence of the components of our key notions.

Look through a treatise on logic, elementary or advanced, and see if you can find these terms or their equivalents. You will not. These books leave it to psychology to study systematically how our mind works. They are even less concerned with thinking as an organismic—shall we say psychosomatic—reaction. "Logic, as the science of the weight of evidence in all fields, cannot be identified with the special science of psychology," says a standard text book.¹

Contrary to this view, Korzybski puts logic and psychology together. He speaks of psycho-logics, of psycho-logical analysis, of psycho-logical occurrences. These occurrences are our semantic reactions. We may study them at two

¹ Morris R. Cohen and Ernest Nagel, *An Introduction to Logic and Scientific Method* (New York, 1943), p. iv.

levels: (a) the nonverbal level, which includes our unspeakable feelings, drives, affects, purposes, moods, sensory and muscular habits, etc., and (b) the verbal level, which includes classification and the calculus of classes determined by our language. This verbal level he considers as "auxiliary, sometimes useful, *but at the present often harmful*, because of the disregard of semantic reactions." [Italics supplied.]²

Shall we ignore the achievements of symbolic logic? Of course not! They are part of our hard-won heritage. Let us make the most of it whenever useful. But let us not imagine that an advance in symbolic logic is necessarily an advance on the whole front of human progress. It may even become a far-reaching salient that it is risky to hold too early or too long.

Let us study the whole question by using techniques that are specific to the psycho-logics we are now advocating. The analogy of a salient on a tactical front is of the type that Kenneth Boulding rates as a mechanical mental model without a feedback (System No. 2).³ Suppose we drop this inadequate analogy and try a biological thinking model (Boulding's System No. 4). We may be awkward at it. Mechanical analogies come to mind spontaneously; they are the stock in trade of our technological culture. Biological analogies are hard to find. They are readily accepted when a poet uses them, as when Walt Whitman writes, for instance, "Thou but the apples, long, long, long a-growing, The fruit of all the Old ripening today in thee." But a self-respecting scientist will avoid them. The readers of a scientific essay do not expect them in a text that claims to be clear, sharp, and definite. They do not want poetical metaphors; they want a chain of "objective" statements logically linked to one another.

Psycho-logics considers poetry as an adequate vehicle of human communication. It does not strive exclusively or mainly for the sharpness of a mathematical formula, for precise quantification and syllogistic consistency. Its purpose

² Alfred Korzybski, *Science and Sanity* (Lancaster, Pa., 1933), p. 24.

³ Kenneth Boulding, *The Image* (Ann Arbor, Mich., 1956), Ch. 2.

is to trip off a learning experience, to induce an insight, to bring about an organismic reaction that will be an event in the life of the recipient. This new logic does not communicate ideas as neat packages that you pass from hand to hand. It throws about handfuls of seeds that will take root and reproduce the original plant when and where the climate and the soil are in the proper condition.

IN the first sentence of his chapter on terminology and meanings, Korzybski writes, "The term *semantic reaction* is fundamental for the present work and *non-elementalistic systems*." ⁴ In other words, semantic reaction should be taken as our unit of discourse, as the basic mental model upon which rests the whole structure of the system. I presented elsewhere a diagram of this mental model.⁵ It shows that our semantic reactions have at least seven aspects: the thinking, the feeling, the moving, the electro-chemical, the environmental, the past, and the future. The thinking aspect is only one of the seven. Whether it is plain unsophisticated common sense or refined symbolic logic, it remains only one of the seven aspects of the whole process, just as the greening of the leaves of a tree remains only one aspect of the total functioning of the tree. If the whole process works in harmonious balance within itself and with its space-time environment, the greening of the leaves will be healthy, and it will serve its normal function in the life of the tree. I can observe this all around my study in my orchard: the bushes and the trees bloom and bear fruit if the conditions are right. If any of the conditions varies above or below a certain optimum range, there is trouble. This trouble will show in any of the many aspects of the behavior of the tree.

This is what happened last summer. We went away for a couple of weeks in early July. To the boy who was left in charge of watering we gave definite instructions: water this new bush every other day; water this tree once a week, don't bother with these other bushes, they can wait until

⁴ Korzybski, *op. cit.*, p. 19.

⁵ *Explorations in Awareness* (New York, 1957), pp. 42-44.

we come back. The boy did exactly as he was told. He followed our detailed instructions to the letter. But the weather did not follow the course we expected it to follow: it was beastly hot for days and days.

The royal jasmine on the archway to the patio, the young camellia near the compost pit, and the persimmon tree down in the orchard were the worst affected. Their leaves were wilting a bit when we came back. They were listless and old-looking in the burning sun. Their greening aspect was not good. It revealed a disturbance somewhere, in the soil, in the air, within the plant, or within the whole plant-soil-weather system. It was most evident at the greening level, but it was not exclusively—or mainly—a greening problem.

So is it with the thinking aspect of our semantic reactions. We do what we expect should be done, and suddenly we find that our thinking goes wrong. It loses its healthy vitality like the leaves of the jasmine, the camellia, and the persimmon tree. Is it exclusively a thinking problem?

In a letter that I received recently, I read: "The main feeling that we both have carried with us is fear. Our separate reactions to this emotion are almost diametrically opposed: I freeze all feelings to protect myself, and Fred fights verbally. All our married life we have interpreted the other's reaction as anger, and thus each of us has reacted to anger with fear and thus a vicious circle has been set up."

What theorem of symbolic logic applies in this case? Their thinking turns round and round in a vicious circle, it is evident. The thinking aspect of their semantic reactions has a neurotic character, just as the greening aspect of our trees had a sickly appearance when we came back from our trip last July.

In both cases, we look for the condition that is within our control and which might alter the situation. For the jasmine I used the rooter with a chemical fertilizer; for the persimmon tree a good thorough soaking was all that was needed. The young camellia is still in a critical condition, but there is a good chance of saving it too.

In the case of my correspondents, it is probable that they

are doing more "thinking" than is good for them. Plain relaxation and training on the silent level of love-making might be indicated.

SYMBOLIC LOGIC works at the level where the disturbance occurs. It deals with thinking as with a relatively independent mechanism that either works or fails to work. You adjust your thinking as you adjust the timing on your car. The psycho-logics of general semantics may or may not intervene at the level where the disturbance has occurred. It deals with the whole organism-in-a-particular-environment-at-a-particular-time. It is not so much concerned with consistency in thinking as with semantic balance and effectiveness.

By semantic balance I mean the healthy state of a person who functions within the optimum range for his age, his education, his past experience, his anticipated future, and the possibilities of the environment in which he happens to be. "When I was a child, I spoke like a child, I thought like a child, I reasoned like a child," wrote the Apostle. The logic of the child is different from the logic of the adolescent. When the gonads become active at puberty, the biochemical changes in the organism cause the face of the world to change also. The boy and the girl are not kids any more. They think like teenagers, they speak like teenagers, they reason like teenagers. When you become a parent, responsible for the life, the welfare, and the future of your children, you assume a new kind of psycho-logics. You think like a parent, you speak like a parent, you reason like a parent. When I withdrew from active professional work, my whole world became different from what it had been before. I began thinking, speaking, and reasoning like a man who does not struggle any more, who does not compete any more, who looks at the game from the bleachers and not from his position in the field. What keeps me in semantic balance today is different from what I needed to function effectively years ago.

The skill of the psychotherapist is a constant application of that all-encompassing psycho-logics. Psycho-logics is behind the art of the educator, of the efficient executive, of all