

## ◆◆ Chapter 33

# *Critical Thinking and General Semantics: On the Primacy of Natural Languages*

### *Abstract*

*Given the frequent sloppiness, vagueness, and obvious irrationality of much human thought, and the rigor, clarity, and usefulness of the physical sciences, many have felt that the answer to irrationality is a more "scientific" approach to language and human problem-solving. As understandable and tempting as this approach may be, it misses some crucial insights into both the nature of human life and understanding, and the nature and value of non-technical, natural, or ordinary language. In this paper, originally presented as the Alfred Korzybski Memorial Lecture at the Yale Club in New York (1987), Richard Paul critiques the work of the General Semanticist Alfred Korzybski and explores how General Semantics and Critical Thinking can illuminate each other. Both traditions make similar assumptions about human experience: that the meanings we create shape our experience; that irrational habits and patterns of thought are a major cause of irrational behavior; and that people can, by disciplining their thought, become more rational. Korzybski, however, used mathematics and science as models for that improvement. Paul argues for a more "informal", naturalistic model, one in which the flexibility and resources of natural languages (French, German, English, etc.) are valued over artificial or technical languages as tools of thought. Each technical language, by its nature, assumes one perspective or framework; no other can be expressed by it. Natural languages, in contrast, allow for unlimited perspectives to be intelligibly expressed. Technical languages are rigid, natural languages flexible.*

### *Note to the Reader*

Since this paper was read at the Symposium on General Semantics, it presupposed familiarity with the work of Alfred Korzybski. For those unfamiliar with his work, a brief introduction is in order. Korzybski took science to be a model of intellectual power, and began a system designed to free men of "unsane" and "pathological" habits of using and reacting to language. Such pathology, he thought, could be traced back to Aristotle. His critique of traditional conceptions of language drew upon relativity theory, quantum mechanics, colloidal chemistry, neurology, and mathematical logic. His goal was to show that Aristotelian habits oversimplify reality and thus produce dogmatism, rigidity, and lack of emotional balance. Such habits confuse sym-

bols and what they represent, ignore limitations of abstraction, involve excessive attachment to sharp either-or distinctions, and generate uncontrolled responses — un-sanities requiring semantic therapy. Korzybski's proposed theory includes "indexing" ('man<sub>1</sub>' to indicate difference in sense from 'man<sub>2</sub>'), "dating" ('Roosevelt<sub>1940</sub>', 'Roosevelt<sub>1930</sub>'), and adding a symbol to all statements indicating an implicit 'et cetera'.

### ◆ Introduction

**M**y fundamental objective is to make a case for shifting the emphasis in General Semantics today. For the insights of Alfred Korzybski to have significant influence today and in the future, they must be freed from the limitations of the language he often used to express them. They must also be synthesized with insights which have developed since his major works. I believe that the emphases emerging in the critical thinking field today highlight useful insights that can be incorporated into General Semantics, just as General Semantics highlights useful insights that can be incorporated into the critical thinking movement. I shall proceed as follows. I shall sketch my understandings of the overall thrust of Korzybski's thought, and then analyze what in that thought needs to be emphasized, what de-emphasized, and what added, as it were. In general, I shall argue that Korzybski had too much faith in the possibility of solving human problems by applying scientific methods to them, and too little faith in the power, richness, and flexibility of natural languages like English, French, and German.

One of the insights implicit in critical thinking is that most human problems should be approached through dialogical and dialectical reasoning in natural languages, rather than through tightly disciplined but technically narrow scientific procedures in "artificial" languages. By this I mean that *reasoned judgment*, rather than hypothesis, prediction, and controlled experiment, can solve non-scientific human problems, and ordinary languages are the best medium for discussing them. For example, the disagreement, between Thomas Jefferson and Alexander Hamilton on the interpretation of the U.S. Constitution cannot be settled by facts about the Constitution or even by facts about people and society, but rather by a reasoned assessment in ordinary language. To conduct this reasoned assessment, we must empathically enter into the logic of both of these thinkers' arguments. We must think our way back and forth between their views, consider objections from both sides, consider answers to these objections, and integrate our own insights and experiences into the process. A language like English has excellent conceptual resources for constructing the two opposing sides. We can most readily express our insights and experiences in a natural language such as English.

Moreover, although *I* may settle the issue for myself, at least tentatively, my reasoning does not substitute for the reasoning of anyone else who wants to settle it. Basic human issues must be re-thought by each human. They cannot be settled once and for all in the logic of a scientific language.

Let me put this another way. Korzybski himself raised many important issues that cannot be fundamentally settled by scientific methods expressed in scientific languages. Though he used scientific and mathematical examples throughout his works, the books he wrote did not become part of science. Korzybski did not change any of the hard sciences by his writings, nor did he directly use scientific methods as they are used in the hard sciences themselves (physics, biology, chemistry, etc.). Rather he used scientific and non-scientific insights to construct a frame of reference fundamentally expressed in ordinary language, a philosophy or point of view from which many human failings and follies can be understood. He developed a variety of imaginative and practical devices for heightening our awareness of pitfalls in human thinking. But in his major works he did not write science.

Scientific methods work best only when we focus on ultimately monological rather than multilogical issues. We must distinguish when *one* frame of reference, *one* language, *one* set of laws are the keys to settling an issue from when rationally defensible competing viewpoints must be considered. We have good reason to suppose that the laws of physics, biology, chemistry, geology, and so forth are in harmony with each other and hence capable of being unified into one *logic*, the logic of science. In that sense, all the languages of science in principle can be synthesized. But human creations, our own personalities, the structure of our social groups and cultures, our lives and traditions, our thoughts, feelings, strengths and weaknesses do not display one unified logic, but a complicated network of competing and often contradictory logics. Natural languages have the "openness" to express this contradictory thinking without begging the key questions. Issues requiring an understanding of human behavior often require, therefore, multilogical reasoning in natural languages rather than scientific methods in technical languages for their settlement. And we can often settle them only for ourselves, not for others. Scientific insights may play a role in our thinking but they cannot determine that thinking.

In arguing for greater emphasis on non-scientific, multilogical thinking, I will explain how the quality of such thinking should be assessed. The possibility for assessment, I will suggest, is grounded in universal features or dimensions which can be critically examined in all thinking whose goal is understanding. I will argue also that we need special emphasis on seven traits of mind essential to the rational application of critical thinking principles: intellectual humility, intellectual courage, intellectual empathy, intellectual integrity, intellectual perseverance, faith in reason, and fairmindedness.

People construct the meaning of things from many divergent points of view, within, if you will, the framework of diverse logics. We can insightfully and autonomously participate in that construction only by becoming proficient in multilogical thinking. Korzybski made a significant contribution to our understanding of how this construction of meaning can become more sane and emancipatory. But now we need to add further insights to the process and make contributions of our own. General Semantics of the '80's and '90's should not be General Semantics of the '30's.

◆ *General Semantics*

General Semantics is a theory of human nature, language, and science whose announced goal is virtually the same as that of the critical thinking movement, namely, the development of rational people in a rational world, of people freed from the entrapments of language, thought, and logic. The foundation for it was laid in Alfred Korzybski's two major works, *Manhood of Humanity: The Science and Art of Human Engineering* (1921) and *Science and Sanity: An Introduction to Non-Aristotelian Systems and General Semantics* (1933). These two seminal insights run throughout the whole of Korzybski's works: that human life is mainly the product of how we construct the meaning of things; and that people can assimilate this insight and reform their minds and behavior in the light of it.

To assimilate this insight, Korzybski argued, people must realize that their day-to-day lives reflect day-to-day evaluations, and that these in turn reflect deep-seated but often unscientific and inappropriate habits of thought. We erroneously and unthinkingly assume that we directly observe the world about us and that how we conceptualize and talk about that world reflects reality as it is. In fact, Korzybski argues, we systematically confuse simplistic meanings and rigid absolutistic labels with complex and dynamic realities. We become entrapped in meanings and labels because we have few practical tools for coming to terms with complexity, dynamism, and multi-dimensionality. Furthermore, because our evaluations of life situations are typically one-dimensional, absolutistic, and rigid, we act in ways which are, to a reasonable person, mad, foolish, or infantile. Yet this need not be so. A practical program of education that helps us keep before our minds the complexity, the dynamism, and the multi-dimensionality of the world is possible.

The structure of science and math provides Korzybski with basic models for this program. The languages of science and math, unlike those of natural languages like English, German, Chinese, and so forth, are for Korzybski specially designed to allow for the expression of complexity, dynamism, and multi-dimensionality. Ordinary natural languages, in contrast, encourage us to atomize and dichotomize the world. This is due, Korzybski argues, to Aristotelian assumptions and Aristotelian logic, built into the structure of such language, which blind us to the limitations of abstraction. These assumptions encourage us to use sharp "either-or" distinctions. They undermine our capacity to see the world in a scientific and hence realistic and sane way.

◆ *The Need for Shift of Emphasis  
in General Semantics*

Korzybski, at the beginning of the second half of *Science and Sanity* (p. 367), cites the following from Augustus De Morgan:

Of all men, Aristotle is the one of whom his followers have worshiped his defects as well as his excellencies, which is what he himself never did to any man living or dead; indeed he has been accused of the contrary fault.

I would not go so far as to claim that Korzybski has suffered the same fate as Aristotle, for Aristotle has been slavishly followed for hundreds of years while Korzybski's work is relatively recent. Nevertheless, General Semantics needs to be updated with some insights whose significance has been deeply understood only within the last 30 to 40 years. The most important of these insights are threefold: firstly, the increasing recognition of the richness, flexibility, subtlety, and power of the conceptual resources implicit in the logic of natural languages; secondly, recognition of the insufficiency of mathematical logic as a set of tools for analyzing and critiquing ordinary reasoning; and thirdly, recognition of the important implications of the multi-dimensionality of most vexing human problems. The first set of insights is developed in the later works of Ludwig Wittgenstein and in the writings of such ordinary language philosophers as John Wisdom, J. L. Austin, and Gilbert Ryle. The second set of insights is developed in the writings of informal logicians and critical thinking theorists such as Michael Scriven, Ralph Johnson, J. Anthony Blair, and others. The third set of insights is being highlighted in the critical thinking movement.

Extensive scholarly work has emerged around the first two insights: hundreds of articles and books exploring the logic of concepts embedded in natural language usage and hundreds of articles and books that place practical logic and critical thinking on the foundation of *informal* rather than *formal* logic. These insights call for a modification of Korzybski's emphasis on scientific and mathematical language as paradigms for understanding the relationships among language, thought, logic, and behavior. Indeed, scientific and mathematical languages are much too rigid and technically specialized to serve as our main source of concepts for basic human problems, while natural languages have just the framework neutrality, the subtlety, and the flexibility we need to mediate between competing views and disciplines. Scientific and mathematical languages are tailor-made for what I have called monological problems, those which can be settled by working within one conceptual framework rather than many. Each hard science operates with one evolving but tightly disciplined language. All well-trained physicists around the world share one common set of foundational concepts and foundational understandings, criteria for evaluating the relevance and strength of claims, and established procedures for settling the vast majority of problems that can be generated within the domain of physics. A Soviet and a North American physicist have no problem sharing their thinking and the results of their work.

But hard science has emerged only in the realm of the purely physical and biological domains, not in the human domain, not in the analysis and assessment of human activities and values. This is because many human problems are multilogical rather than monological. By their nature, they can be approached from multiple frames of reference. They cannot be settled within one universally accepted point of view. By their nature they admit to being understood in different ways. The reason for this difference between most problems in the biological and physical worlds and most problems in the human world is in one sense simple.

We humans have no control over the logic of biological and physical nature but we do have significant control over the logic of human nature and society. Human life, unlike chemical behavior, has many logics, not just one logic. The logic and structure of human lives vary in accordance with divergent and often conflicting meanings people bring to the act of living, through their diverse philosophies and ideologies. We of all animals create the logic we live. And we have never collectively agreed what that logic will or should be. This is not a problem created by natural languages or their various structures, for, despite thinking in the same language, there is tremendous variation among speakers regarding basic frames of reference and points of view. Soviet, Chinese, and U.S. economists, historians, and sociologists do not see eye-to-eye, not because of differences in the structure of the natural languages they speak. Economists, historians, and sociologists from the same society speaking the same natural language, approach their subjects with very different conceptual frameworks and points of view. Human multi-dimensionality is often connected with conflicting ways of thinking about and structuring the human world. Sometimes these differences have largely social roots, sometimes largely economic roots, sometimes philosophical or ideological roots, and sometimes personal roots. Most often these various roots are so intertwined and have so grown together that it is impossible to separate them.

My basic point is this: when problems are multilogical rather than monological in nature, we cannot turn to science, by its nature monological, for a model. A science of human life is not possible because human life is not now, nor will it ever be, scientific. It is not now, nor will it ever be, monological. Monological problems can, in the last analysis, be solved within a dominant frame of reference, but human problems require the ability to move back and forth between and among conflicting frames of reference. Human problems require dialogical and dialectical, rather than monological, formal, or procedural, thinking. Korzybski's involvement in science and math, his background in engineering and technical, monological disciplines hampered his ability to fully grasp this important fact. He fails to see that we must look outside the monological disciplines for our paradigms. On the other hand, he is very much aware of the unlimited number of ways the world can be conceptualized and interpreted.

The shift of emphasis I suggest in no way invalidates the various extensional devices Korzybski developed to highlight the uniqueness of every person and event, to remind us of multiple causal influences, of differences in historical and environmental conditions, and of the impossibility of any statement covering all characteristics of a situation. Neither should we forget Korzybski's concern that we keep clearly in mind the inevitable inter-connectedness of events and the ever present danger of reifying our concepts. The heuristic value of such devices to General Semanticists parallels the heuristic value of various fallacy labels developed by critical thinking theorists to heighten our awareness of the pitfalls of various simplistic patterns of thought. Finally, the shift in vision I suggest does not invalidate Korzybski's

emphasis on the need to think holistically and multi-dimensionally and to be aware of assumptions hidden in our ways of thinking and talking.

Still this shift would require some basic reorientation within the Korzybskian world view and so I should explain in further detail what that shift, as I envision it, entails.

### ◆ *Critical Thinking and the Critical Mind*

If human life is by its nature multilogical, then the problem of learning to think critically includes the very difficult task of learning to think clearly, accurately, and insightfully within a variety of conflicting points of view. We must become increasingly more cognizant of how our thought is being shaped by humanly created perspectives, and of their strengths and weaknesses, insights and biases. Taking this task seriously requires us to learn the art of dialogical and dialectical thinking and develop the mental traits which enable us to hold a set of beliefs or use a set of concepts without being dominated by them. These two tasks are interrelated, because dialogical or dialectical reasoning develops the fairminded critical mind only insofar as the thinking reflects certain dispositions or traits of mind.

Let me express this in more detail while I come at it from a somewhat different point of view. As critical thinkers, we begin with the premise that all thinking whose goal is understanding has a logic which, if we develop the appropriate skills, can be explicated, understood and, at least potentially, assessed. Thinking, despite its inevitable particularity, always operates within systems that display universal features. Hence all human thinking:

- 1) is defined by purposes and ends.
- 2) affirms or creates meanings and values.
- 3) embodies some concepts and distinctions and not others.
- 4) emphasizes some things and not others (puts some things into the foreground of our attention while throwing others into the background).
- 5) is based on assumptions.
- 6) advances or uses reasons or evidence.
- 7) generates implications or consequences.
- 8) is consistent with or contradictory to other lines of thought.
- 9) is developed within a point of view or perspective.
- 10) formulates or highlights some problems or issues and not others.
- 11) is relatively clear or unclear, elaborated or underdeveloped, deep or superficial, one-dimensional or multi-dimensional, strong or weak, insightful or prejudiced.

A skilled critical thinker is adept at probing into and explicating these dimensions of thought. Skill in Socratic questioning helps the critical thinker bring alternative and conflicting patterns of thought into explicit formula-

tion, while skill in dialogical and dialectical exchange enables the critical thinker to gain insights into the strengths and weaknesses of those patterns.

For example, suppose I was raised in a traditional U.S. "liberal" family and have learned to reason about and interpret events from a liberal perspective. If I learn to think critically, I learn to identify the various elements of the logic of liberal thought, not as facts given in the world, but as guides and foundations in my own thinking. I recognize that others, for example conservatives, have different guides and foundations. I learn to recognize quite explicitly that I begin with some assumptions, rather than others; use some concepts, rather than others; raise some issues, rather than others; look for some kinds of causes of and explanations for social problems; and so forth. I also learn to value entering empathically into the thinking of a wide range of other competing political perspectives. I reason back and forth between them. I role play, in my own mind, various persuasions and perspectives. I learn to critically compare alternative assumptions, alternative objections, alternative implications and consequences. I ransack my experience for events that support these ways of thinking. I begin to integrate insights from other perspectives into my own. My thinking and my perspective evolves. I think of myself less and less as defined by the *substance* of my beliefs and more and more by the critical *processes* that enable me to shape and re-shape them. I realize, more and more, the importance of *how* I think, and of how I relate to that thinking.

My own intellectual traits become more important to me as I see how much the quality and value of my own thinking depends on them. Who I am and *how* I think — rather than *what* I think — become importantly united. I identify myself less and less with particular substantive beliefs. I make common cause, not with those who uncritically reinforce, nor with those who sophistically defend, my substantive beliefs, but with those who critically hold whatever beliefs they hold. I recognize that, as a critical liberal or conservative or radical or socialist or Christian or communist or feminist or atheist or capitalist, I have more in common with those who critically hold their beliefs, even though they may substantively disagree with me, than I have with those who uncritically or closedmindedly defend the substance of what I believe.

So as a critical thinker, I would suggest that Korzybski himself would not identify with the substance of his beliefs at any point in time. He would be willing to abandon, for example, his model of science and mathematics as the fundamental paradigm of knowledge if he came to see the importance of multi-logical "knowledge" and the kind of multi-logical thinking and traits of mind such knowledge requires. Korzybski, as a critical thinker, would be willing to enter empathically into this altered "non-scientific", "non-technical" way of thinking about knowledge that I am now sketching out. Furthermore, Korzybski would be willing to recognize that natural languages have advantages he failed to emphasize and scientific languages disadvantages he failed to highlight. This openness to change of view has characterized most of the great contributors to human knowledge and insight. It is reasonable to postulate then that, if Korzybski had lived to this day, his own views would have undergone significant shifts as a result.

◆ *Concluding Remarks*

The uncritical or sophistically critical mind is not unmotivated or without traits. The development of a critical mind through critical thinking is not a matter of placing bits and pieces of wisdom into a void. We are each born inclined toward egocentrism. We automatically and painlessly generate fantasies and beliefs that give us pleasure and satisfy our desires. We do not need to be taught how to avoid unpleasant truth nor how to distort, falsify, twist, or misrepresent situations to serve our egocentric interests. We do this quite naturally. Children display great precocity in these "skills" with no training in their backgrounds. The human egocentric mind is tailor-made for self-deception and ready-equipped with what Freud called defense mechanisms. Many of the important meanings we construct for ourselves produce powerful stereotypes, prejudices, delusions, illusions, and narrowmindedness of various kinds. We need a much more developed theory of the cultivation of intellectual traits than we now have in order to realistically combat egocentric thought.

I can reason well in domains in which I am prejudiced — hence, eventually reason my way out of my prejudices — only if I develop a set of mental benchmarks for such reasoning. Of course, one of the insights I will need is the clear recognition that when I am prejudiced, it will seem to me that I am not, and, similarly, that those who are not prejudiced as I am will nevertheless seem to me to be prejudiced. (To a prejudiced person an unprejudiced person will seem prejudiced.) I will come to this insight only to the degree that I have analyzed experiences in which I have first been intensely convinced that I was correct only to find after a series of challenges, reconsiderations, and new reasonings that my previous conviction was in fact prejudiced. I must take this experience apart in my mind, gain a clear sense of its elements and of how these elements fit together (how I became prejudiced; how I inwardly experienced that prejudice; how intensely that prejudice appeared to me to be insight; how I progressively began to break down that prejudice through serious consideration of opposing lines of reasoning; how I slowly came to new assumptions, new information, and ultimately new conceptualizations ...).

Only when one gains analyzed experiences of working one's way, reasoning one's way, out of prejudices can one gain the sort of higher order abilities a fairminded critical thinker requires. To reason one's way out of prejudices in the way suggested above requires that we recognize that our own egocentric drives are the fundamental obstacles to rational living, not forces operating outside of us, not language in itself but language as we are egocentrically inclined to use it. Our capacity to develop a critical mind develops at best alongside of our native egocentric thought. Only through critical analysis directed at our egocentrism can we hope to develop skills in isolating the irrational dimension of our experience. But this skill grows only through time and as a result of very particular educational cultivation.

One implication of the above reasoning is this: if we take seriously the traditional goals of General Semantics, we must go beyond its traditional means.

We must reshape and shift our vision somewhat of the roots of the problem. We must give up the view that the structure of natural languages is the fundamental problem. We must learn to use the language we speak with clarity, precision, and accuracy, for it is in natural rather than artificial languages that we can find the linguistic and conceptual resources to develop our critical faculties. We must learn to distinguish monological, technical issues from multi-logical, cross-disciplinary ones. We must develop the art of Socratic questioning and practice dialogical and dialectical exchange. We must empathically enter into and reason within a diversity of points of view. We must develop skill in laying out the logical features of our own thinking and that of others. We must develop our intellectual humility and courage, our intellectual empathy and integrity, our intellectual perseverance, our confidence in reason, and our fairmindedness. And we must do this as part of the very frustrating and difficult task of combatting our ever-lurking egocentric minds.

Most of all we must realize that science cannot tell us how to construct the meaning of things and certainly not how to create a humane world. We must play down the significance of disagreements concerning the substance of thought and look to find others within a diversity of perspectives who critically, rather than simplistically or sophistically, believe what they believe. We must make common cause with critical General Semanticists as well as with critical opponents of General Semantics, if any. We must beware of allegiances based on labels like "American", "Russian", "Communist", "Capitalist", "Christian", "Atheist", "Liberal", "Conservative", "Radical". Only with such a shift of emphasis and vision can the enduring insights of Korzybski be carried forward and honored in the deepest fashion, by being empathically and critically entertained by empathic critical minds.