

**ALFRED KORZYBSKI MEMORIAL LECTURE 1987****CRITICAL THINKING AND THE WAY WE****CONSTRUCT THE MEANING OF THINGS\***

by

**Richard W. Paul****INTRODUCTION**

It's a pleasure and an honor to be here, and to offer in my small way a tribute to a very great, very profound, and very critical thinker, that is, Alfred Korzybski ... what I can bring is a little critical thinking. What I want to share with you today is my critical thinking about the relationship that does exist, and the relationship that can exist, between general semantics and critical thinking.

Before I go forward with my formal remarks, I would like to make a couple of points about my general orientation. I see three basic patterns in human thought. One I call uncritical thinking; it's the type of thinking which is very associational, very impressionistic, very superficial, and also very common. That is, the human mind is more or less, as I see it, tailor-made for uncritical thinking. Freud pointed out how pleasure-principle thinking is the natural form of thinking for the human species. That is, we are inclined to believe what gives us pleasure, what satisfies our desires, what reinforces our fantasies, which makes whatever fantasy or beliefs we have comfortable. And what he called the other principal thinking, thinking in keeping with reality, is something that has to be learned. It doesn't come with us as primary equipment.

But there's a second kind of thinking beyond uncritical thinking, a very highly skilled kind of thinking, and I call this sophistic thinking. Sophistic thinking; you could call it selfish critical thinking. It's the sort of thinking which we find second most prevalent in the world; the kind of thinking that many political leaders are adept at, many lawyers are adept at, many salespersons are adept at, many people representative of points of view, of religions, of ideologies, of philosophies are very adept at. It's the sort of thinking which, though highly skilled and often insightful, is very much what I would call monological. It's thinking almost entirely within one point of view. And it exists in order to justify that one point of view in every way possible. And so, whatever its skills, whatever its abilities, whatever its fluency, whatever its ... it is narrow-minded, it is one-sided. Then there is a third kind of thinking possible, but it is the most rare, and it is what I would call fair-minded critical thinking. This is the kind of

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thinking that occurs when people discover (1) that they are naturally inclined to being uncritical, (2) that they have a strong predilection to being sophistic, and to think in terms of their vested interests and to use their intellectual capacities to justify and rationalize, but also having ... a sense of integrity and a sense of fair play, a realization, if you will, that all of truth is not to be found in any one point of view. And that although of necessity they have a point of view (because we can't avoid having a point of view), though they think within some perspective (because we can't avoid having a perspective), nevertheless they value .. probing into points of view that are very different from their own, because they are confident that there are insights in other points of view and they want to bring those insights into their own point of view. This is the rarest kind of thinking; this is the kind of thinking that I think Alfred Korzybski was concerned to produce, it's a very difficult kind of thinking to produce, and I hope that some of my remarks will shed light on how both general semantics and critical thinking can truly conspire together, work together in this direction. Now my remarks:



My fundamental objective is to make a case for shifting the emphasis in General Semantics today. If the insights of Alfred Korzybski are to have significant influence today and in the future they must be freed from the limitations of the language that he often used in expressing them. They must also be synthesized with insights which have developed subsequent to his major works. I believe that the emphases emerging in the critical thinking field today can play a useful role in highlighting insights that can be usefully incorporated into General Semantics, just as General Semantics can play a useful role in highlighting insights that can be usefully incorporated into the critical thinking movement. I shall proceed as follows. I shall first say a few words about the nature of the critical thinking movement's impact on education in the state of California and then discuss the intellectual tradition behind the movement, historically speaking. I will then sketch my understandings of the overall thrust of Korzybski's thought, followed by an analysis of what in that thought needs to be emphasized, what needs to be de-emphasized, and what needs to be added, as it were. In general I will be arguing 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 the tradition of critical thinking is that human problems typically need to 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 is the fundamental need for the solution of non-scientific human problems and ordinary languages the best medium for discussion of them. The disagreement for example between Thomas Jefferson and Alexander Hamilton on the interpretation of the U.S. Constitution is not fundamentally to 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 enter empathically into the logic of both of these thinker's arguments. A language like English has excellent conceptual resources for constructing the two opposing sides. We must think our way back and forth between their views, consider objections from both sides, consider answers to these objections from the other sides, and integrate our own insights and experiences into the process.

We can most readily express our insights and experiences in a language such as English. We can perhaps settle the issue, at least tentatively, for ourselves, but our reasoning cannot be substituted for the need for others who want to settle the issue to go through this process for themselves. Basic human issues need to be re-thought by every human. They are, in short, not settleable once and for all in the logic of a scientific language.

Let me put this another way. Korzybski himself raised many important issues that are not fundamentally to be 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 and his own reasoning to construct a frame of reference fundamentally expressed in ordinary language, a philosophy or point of view from the perspective of 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 about ourselves and the world. But in his major works he was not writing "science".

To put this yet another way, we need to recognize that scientific methods work best only when we focus essentially on what are ultimately monological rather than on what are ultimately multilogical issues. We need to distinguish when one frame of reference, one language, one set of "laws" are the keys to settling an issue and when there are rationally defensible competing viewpoints to be considered. We have good reason to suppose that all the laws of Physics, Biology, Chemistry, Geology, and so forth are in harmony with each other and hence in principle capable of being unified into one logic, the logic of science. In that sense all the languages of science can in principle 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 that call for 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 the need to give greater emphasis to non-scientific, multilogical thinking, I will explain how it is that the quality of such thinking is to be assessed. The possibility for assessment, I will suggest, is grounded in the fact that all thinking whose goal is understanding has universal features or dimensions, which can be critically examined. I will argue also that we need to put special emphasis on seven traits of mind which are essential to the rational application of critical thinking principles: intellectual humility, intellectual courage, intellectual empathy, intellectual integrity, intellectual perseverance, intellectual faith in reason, and fairmindedness.

We need to see that humans construct the meaning of things from many divergent points of view, within, if you will, the framework of diverse logics, and that we can insightfully and autonomously participate in that construction only if we become 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 we need now to add further insights to the process and hence make contributions of our own. General Semantics (1987,88,89) should not be General Semantics (1931,32,33.)

### THE CRITICAL THINKING MOVEMENT

The drive to integrate critical thinking into classroom instruction in all subject areas from kindergarten through graduate school is a strong and growing movement in education today. California's multiple requirements are illustrative of the kind of multi-level impact that critical thinking can have:

- 1) a 4 unit graduation requirement at all state colleges and universities in the huge CSUC system
- 2) a 3 unit special course requirement in all community colleges
- 3) a California State Dept. of Education requirement that all K-12 state tests include at least 33% critical thinking items, and
- 4) most recently, a requirement that all courses in all community colleges contain activities and assignments that directly foster critical thinking skills.

The graduation requirement in the CSUC system is articulated as instruction that produces:

...an understanding of the relationship of language to logic, leading to the ability to analyze, criticize, and advocate ideas, to reason inductively and deductively, and to reach factual and judgmental conclusions based on sound inferences from unambiguous statements of knowledge or belief.

At the same time, numerous prestigious educational organizations and associations have come out as strongly supporting instruction in critical thinking: the NEA, AFT, ASCD, the National Councils of Teachers of English and of Social Studies, the National Academy of Sciences, the American Association of Medical Colleges, the College Board, and others.

Paralleling the growing support for critical thinking is a growing recognition of the theoretical significance of critical thinking even in the basic skills of reading, writing, speaking, and listening. The need to think critically is increasingly recognized as intrinsic to the doing well of even mundane academic and personal tasks.

However, though critical thinking is being treated by educational communities today as a virtual new discovery, the theoretical foundation for it is, in fact, traceable to the Socratic method and the Socratic ideal of living a reflectively examined life. From Socrates onward there are currents of philosophical and educational thought that have kept the Socratic ideal and method alive and developing through Bacon and the Enlightenment Thinkers down through the

work of 19th Century scholars such as John Stuart Mill, John Henry Newman, Karl Marx, and William Graham Sumner, and into the work of a variety of 20th Century philosophers, psychologists, and sociologists. Through the years the idea has been linked to the concept of designing education to help cultivate free and autonomous persons in free and humane societies. From Bacon onward the problem and ideal of learning to think for oneself has been recognized to be connected with the problem of understanding and gaining command of language as well as that of overcoming traditional social prejudices and personal self-serving (but fallacious) tendencies of mind. It was only in the 19th and 20th Centuries, however, that the problems of deep-seated irrational drives in the human mind and of destructive irrational forces in social life were vividly disclosed and widely recognized. In addition to Freud's description of the various defense mechanisms of the irrational mind, growing numbers of studies of self-deception, egocentricity, and ethnocentricity have slowly heightened awareness of the importance and difficulty of helping people to learn to think freely and autonomously. The massive destructiveness and horror of the second world war followed by strident narrow-minded voices in the cold war have added yet further motivation to recognizing the need for incorporating critical thinking into education and everyday life.

From the beginning in Socrates' method of probing questioning and dialectical reasoning, the ideal of critical thinking has been united with the notion of controlling the way — through the uses of language — we construct for ourselves the meaning of things. From the beginnings in Socratic dialogue the act of critical thinking has been understood to involve the analysis and assessment of meanings that when explicated disclose to us the logic of the way we live. From the beginnings in Socratic exchange, the ideal of critical thinking has challenged us to explore irrational behavior and self-contradictory thinking and thus to identify and remove irrationally constructed meanings from the foundations of our everyday living. Having said this much about critical thinking let us now consider General Semantics in relation to it.

## 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). There are two seminal insights that run throughout the whole of Korzybski's works. The first is that human life is largely the product of the way we construct the meaning of things. The second is that people are in principle capable of assimilating this insight and reforming their minds and behavior in the light of it. To assimilate this insight, Korzybski argued, people must come to see that their day-to-day lives are a reflection of day-to-day evaluations and that these in turn are a reflection of deep-seated but often unscientific and inappropriate habits of thought. We erroneously and unmindfully assume that we are direct observers of the world about us and that our ways of conceptualizing and talking about that world reflect 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 been given

few practical tools by which we could come 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, French 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 to the fact, Korzybski argues, that Aristotelian assumptions and Aristotelian logic are built into the structure of such languages. They blind us to the limitations of abstraction. They 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 quote from Augustus De Morgan,

Of all men, Aristotle is the one of whom his followers have worshipped 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, there is a need to update General Semantics with some insights whose significance has been deeply understood only with 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 such as English, German, and French; secondly, recognition of the insufficiency of mathematical logic as a set of tools for the analysis and critique of ordinary reasoning; and thirdly, recognition of the significant implications of the multidimensionality of most vexing human problems. The first set of insights are developed in the later works of Ludwig Wittgenstein as well as in the writings of such ordinary language philosophers as John Wisdom, J. L. Austin, and Gilbert Ryle. The second set of insights are developed in the writings of informal logicians and critical thinking theorists such as Michael Scriven, Ralph Johnson, J. Anthony Blair, and many others. The third set of insights are being highlighted in the critical thinking movement. In the first two cases there has been extensive scholarly work emerging around these insights: in the first case hundreds of articles and books exploring the logic of concepts embedded in natural language usage and in the second case 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 relation of language, thought, logic and behavior. Indeed scientific and

mathematical languages are much too rigid and technically specialized to serve as our main source for concepts to use in coming to terms with basic human problems while natural languages have just the framework neutrality, just the subtlety and 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 in the last analysis can be settled by working within one rather than many conceptual frameworks. 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, all share common established procedures for settling the vast majority of problems that can be generated within the domain of Physics. A Russian and an American physicist have no problem in 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. The reason for this is that many human problems are multilogical rather than monological. By their nature they admit to being approached from multiple frames of reference. There is no possibility then that they can be settled within one universally accepted point of view. They admit by their nature 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. Human life unlike biological life has many logics, not just one logic. The logic and structure of human lives vary in accordance with divergent and often conflicting meanings that humans through their diverse philosophies and ideologies bring to the act of living. We of all animals create the logic we live. And we have never collectively agreed as to 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 as to basic frames of reference and point of view. The fact that Russian, Chinese, and American economists, historians, and sociologists do not see eye-to-eye is not a function of differences in the structure of the natural languages they speak. Add to this the fact that many economists, historians, and sociologists from the same society speaking the same natural language approach their subject with very different conceptual frameworks and points of view. Human multidimensionality is often connected with humanly conflicting ways of thinking about and of 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 not possible to separate them.

My fundamental point is this; that when problems are multilogical rather than monological in nature, we cannot turn to science which is by its nature monological for our paradigm. 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 grasp to the fullest extent 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 in which the world can be conceptualized and interpreted.

The shift of emphasis I am suggesting in no way invalidates the various extensional devices that Korzybski developed to highlight the uniqueness of every person and event, to keep us aware of multiple causal influences, of differences in historical and environmental conditions, and of the impossibility of any statement covering all the characteristics of a situation. Neither need we forget Korzybski's concern that we keep clearly in mind the inevitable interconnectedness of events in the world and the ever present danger of reifying our concepts. The heuristic value of such devices to general semanticists is quite parallel to 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 am suggesting does not invalidate Korzybski's emphasis on the need to think holistically and multi-dimensionally and to be sensitively aware of tacit assumptions hidden in our ways of thinking and talking about the world.

Still the 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 involves the very difficult task of learning to think clearly, accurately, and insightfully within a variety of conflicting points of view; and to do so in such a manner as to become increasingly more cognizant of how one's thinking, for good or for ill, is being shaped by a humanly created perspective, and of what the strengths and weaknesses, insights and biases, of those perspectives are. Taking this task seriously requires that we 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 fair-minded critical mind only insofar as the thinking is done in keeping with 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 will 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) focuses on some things and not others (puts some things into the foreground of our attention while diminishing our awareness of other things)
- 5) is based on assumptions
- 6) advances or uses reasons and/or evidence
- 7) generates implications and/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, relatively elaborated or underdeveloped, relatively deep or superficial, relatively one-dimensional or multi-dimensional, relatively strong or weak, relatively insightful and/or prejudiced.

A skilled critical thinker is adept at probing into and explicating all of these dimensions of his own thinking and the thinking of others. Skill in Socratic questioning helps enable the critical thinker to bring alternative and conflicting patterns of thought into explicit formulation while skill in dialogical and dialectical exchange enables the critical thinker to gain insights into the strengths and weaknesses those patterns define.

For example, suppose I was raised in a traditional American "liberal family" and have learned to reason about and interpret events from and within 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; and so forth. I learn as well 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 this diversity of ways of thinking about the world. I begin to integrate insights from other perspectives into my own. My thinking and my perspective evolve. 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 that substance. I realize, more and more, the significance of the manner in which I think, and of the way in which I relate to that thinking. My own intellectual traits become of greater significance to me as I see how much the quality and value of my own thinking is dependent 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 re-enforce, nor with those who sophistically defend, my substantive beliefs, but with those who critically hold whatever beliefs they do 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 what they do believe, 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 significance in human life 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 "nonscientific" "nontechnical" 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. It is this openness to change of view that 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. Let us now look further into this suggested connection between skills of thinking and intellectual traits.

#### THE SIGNIFICANCE FOR THINKING OF TRAITS OF MIND

The critical mind, I have argued, is defined, not by any particular substantive position, nor by any particular philosophy, ideology, or world view, but rather by a studied identification of the part of the thinker with how he thinks, and by extension with the traits of mind that continually orient the character, manner, and direction of his thinking. There are, I believe, at least seven interdependent traits of mind that we need to cultivate in ourselves if we hope to become critical thinkers: intellectual humility, intellectual courage, intellectual integrity, intellectual empathy, intellectual perseverance, intellectual faith in reason, and an intellectual sense of justice.

Here is how I would define these traits:

1) Intellectual Humility: Having a consciousness of the limits of one's knowledge, including a sensitivity to circumstances in which one's native egocentrism is likely to function self-deceptively; sensitivity to bias, prejudice and limitations of one's viewpoint. Intellectual humility is based on the recognition that one ought not claim more than one actually knows. It does not imply spinelessness or submissiveness. It implies the lack of intellectual pretentiousness, boastfulness, or conceit, combined with insight into the logical foundations, or lack of such foundations, of one's beliefs.

2) Intellectual Courage: Having a consciousness of the need to face and fairly deal with ideas, beliefs, or viewpoints concerning which we presently have strong negative emotions and to which we have not given a serious hearing. This courage is connected with the recognition that ideas considered dangerous or absurd are sometimes rationally justified (in whole or in part) and that conclusions or beliefs inculcated in us are sometimes false or misleading. If we are to determine for ourselves which is which, we must not passively and uncritically "accept" what we have

"learned". Intellectual courage comes into play here because inevitably we will come to see some truth in some ideas considered dangerous and absurd and some distortion or falsity in some ideas strongly held in our social group. It will take courage to be true to our own thinking in such circumstances. In some cases the penalties for non-conformity may be severe.

3) Intellectual Integrity: Recognition of the need to be true to one's own thinking, to be consistent in the intellectual standards one applies, to hold one's self to the same rigorous standards of evidence and proof to which one holds one's antagonists, to practice what one advocates for others, and to honestly admit discrepancies and inconsistencies in one's own thought and action.

4) Intellectual Empathy: Having a consciousness of the need to imaginatively put oneself in the place of others in order to genuinely understand them requires the consciousness of our egocentric tendency to identify truth with our immediate perceptions or long-standing thought or belief. This trait correlates with the ability to reconstruct accurately the viewpoints and reasoning of others and to reason from premises, assumptions, and ideas other than our own. This trait also correlates with the willingness to remember occasions when we were wrong in the past despite an intense conviction that we were right, as well as the ability to imagine our being similarly deceived in a case at hand.

5) Intellectual Perseverance: Willingness, and consciousness of the need, to pursue intellectual insights and truths in spite of difficulties, obstacles, and frustrations; firm adherence to rational principles despite the irrational opposition of others. A sense of the need to struggle with confusion and unsettled questions over an extended period of time in order to achieve deeper understanding or insight.

6) Intellectual Faith in Reason: Confidence that in the long run one's own higher interests and those of humankind at large will be served best by giving the freest play to reason, by encouraging people to come to their own conclusions through a process of developing their own rational faculties, faith that with proper encouragement and cultivation people can develop the ability to think for themselves, to form rational viewpoints, draw reasonable conclusions, think coherently and logically, persuade each other by reason and become reasonable persons, despite the deep seated obstacles in the native character of the human mind and in society as we know it.

7) Intellectual Sense of Justice: Willingness, and consciousness of the need, to treat all viewpoints on their own merits, without reference to one's own feelings or vested interests, or the feelings or vested interests of one's friends, community, or nation; implies a desire to hear and consider the strongest most insightful case for all points of view; implies adherence to intellectual standards without reference to one's own advantage or the advantage of one's group.

Now all of these important traits of mind are interdependent. It is not difficult to suggest why this is so. Consider intellectual humility. To develop a consciousness of the limits of our knowledge we must have the courage to face our own prejudices and ignorance. To discover our own prejudices in turn we often have to empathize with and reason within points of view we are hostile toward. To achieve this end we must typically persevere over a period of time, for learning to empathically enter a point of view against which we are biased takes time and

significant effort. That effort will not seem justified unless we have the faith in reason to believe we will not be "tainted" or "taken in" by whatever is false or misleading in the opposing viewpoint. Furthermore, merely believing we can survive serious consideration of an "alien" point of view is not enough to motivate most of us to consider them seriously. We must also be motivated by an intellectual sense of justice. We must recognize an intellectual responsibility to be fair to views we oppose. We must feel obliged to hear them in their strongest form to ensure that we are not condemning them out of ignorance or bias on our part. At this point we come full circle back to where we began: the need for intellectual humility.

Or, let us begin at another point. Consider intellectual good faith or integrity. Intellectual integrity is clearly a difficult trait to develop. We are often motivated, generally of course without admitting to or being aware of this motivation, to set up inconsistent intellectual standards. The egocentric or sociocentric side of our minds is always ready to believe positive information about those we like and negative information about those we dislike. It is likewise strongly inclined to believe what serves to justify our vested interest or validate our strongest desire. Hence, all humans have some innate mental tendencies to operate with double standards, which of course is paradigmatic of intellectual bad faith. Such modes of thinking often correlate quite well with getting ahead in the world, maximizing our power or advantage, and getting more of what we want.

Nevertheless, it is difficult to operate explicitly or overtly with a double standard. We need therefore to avoid looking at the evidence too closely. We need to avoid scrutinizing our own inferences and interpretations too carefully. At this point a certain amount of intellectual arrogance is quite useful. I may assume, for example, that I know just what you're going to say (before you say it), precisely what you are really after (before the evidence demonstrates it), and what actually is going on (before I have studied the situation very carefully). My intellectual arrogance may make it easier for me to avoid noticing the unjustifiable discrepancy in the standards I am applying to you and the standards I am applying to myself. Of course, if I don't have to empathize with you, that too will make it easier to avoid seeing my duplicity. I am better positioned also if I don't feel a keen need to be fair to your point of view. A little background fear as to what I might discover if I seriously considered the consistency of my own judgments can be quite useful here as well, in which case my lack of intellectual integrity is supported by my lack of intellectual humility, empathy, and fairmindedness.

Going in the other direction, it will be difficult to maintain a double standard between us if I feel a distinct responsibility to be fair to your point of view, understanding this responsibility to entail that I must view things from your perspective in an empathic fashion and conduct this inner inquiry with some humility regarding the possibility of my being wrong and your being right. The more I dislike you personally or feel wronged in the past by you or by others who share your way of thinking, the more pronounced in my character must the trait of intellectual integrity and good faith be in order to provide the countervailing impetus to think my way to a "fair" conclusion.

## CONCLUDING REMARKS

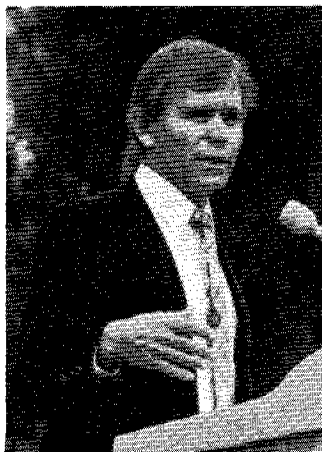
The uncritical or sophistically critical mind is not unmotivated or without traits. The development of a critical mind through critical thinking is not a matter of placing bits and pieces of wisdom into a void. We are all of us born with a brain inclined toward egocentrism. We automatically and painlessly 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 are productive of 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 have now in order to realistically combat egocentrism in our thinking.

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, in a similar manner, 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 on an issue, judgment, or point of view, only to find after a series of challenges, reconsiderations, and new reasonings, that my previous conviction was in fact prejudicial. I must take this experience apart in my mind, gain an explicit 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 an insight; how I progressively began to break down that prejudice through serious consideration of opposing lines of reasoning; how I came slowly to new assumptions, new information, and ultimately new conceptualizations.... It is only when one gains analyzed experiences of working one's way, reasoning one's way, out of prejudices that one gains the sort of higher order abilities that a fair-minded critical thinker requires. To reason one's way out of prejudices in the manner 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. It is only through critical analysis directed at our egocentrism that we can 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 are to take seriously the traditional goals of General Semantics, we must go beyond its traditional means. We must reshape and shift our vision somewhat as to what the roots of the problem are. 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 will find the linguistic and conceptual resources for the development of our critical faculties. We must learn to distinguish monological, technical issues from multi-logical cross-disciplinary ones. We must develop ourselves in the art of Socratic questioning and seek

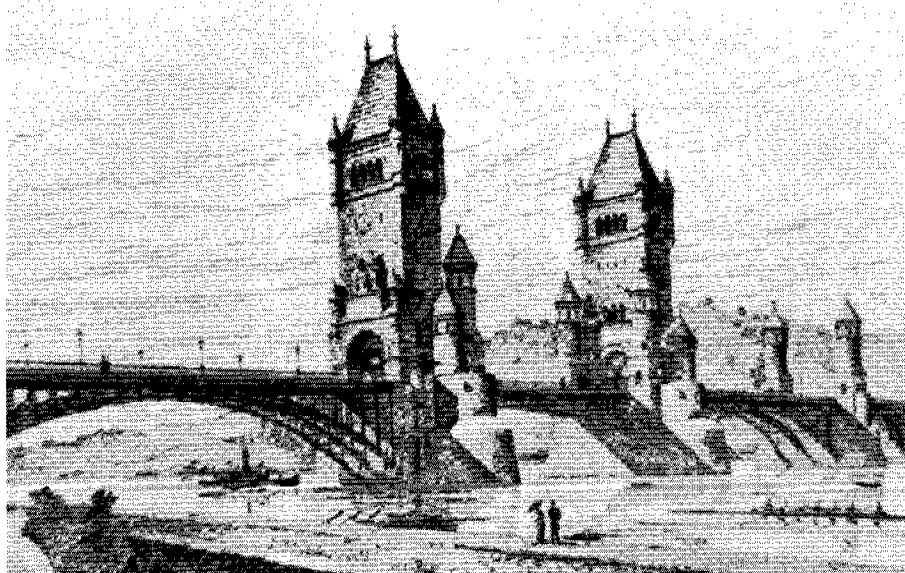
out practice in dialogical and dialectical exchange. We must empathically enter and reason within a diversity of points of view. We must develop skill in laying out the logical features of our thinking and that of others. We must seek to develop our intellectual humility and courage, our intellectual empathy and integrity, our intellectual perseverance, our intellectual faith 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 there be. 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 and that is by being empathically and critically entertained by empathic critical minds.

#### BIOGRAPHY



Richard Paul is Professor of Philosophy and Director of the Center for Critical Thinking and Moral Critique at Sonoma State University, Rohnert Park, California. He received his Ph.D. in Philosophy from the University of California at Santa Barbara, spending his last year in England working with John Wisdom at Cambridge University. His dissertation, Logic as Theory of Validation, got him involved in the critical thinking movement, in which he has published extensively and organized many conferences, the latest one the Tenth Annual International Conference at Sonoma State, August 5-8, 1990. He has co-authored two Critical Thinking Handbooks, for the K-3rd and 4th-6th grades, and is working on tests for various critical thinking capacities. The Council for Philosophical Studies named him "distinguished philosopher" in 1987.

Design Study,  
Grant Memorial Bridge,  
Washington, DC, 1887.



## GENERAL SEMANTICS AND SCIENCE: A RESPONSE TO RICHARD W. PAUL

by

James D. French

Since the first appearance of Alfred Korzybski's book *Science And Sanity* in 1933,<sup>[1]</sup> general semantics (GS) has been the target of criticisms from the academic community. I have noticed that sometimes, if the critic has an interest in the 'technical' disciplines, he thinks that GS is not rigorous or scientific enough; but if he has a background in English or social science, he may believe the opposite: that it is too science-oriented.

Historically, the most strident objections to Korzybski's system have come from those critics who possess a philosophical or 'logical' education, which is one reason (of several) why the Institute has, over the years, continually striven to maintain and defend the rigor of the discipline. Well-meaning but misguided "corrections" that ignore the requirements of consistency and rigor can only hurt, not help general semantics.

Given the obvious scientific underpinnings of GS, and Korzybski's uncompromising advocacy of science in his lifetime, it seems somewhat incredible that anyone in 1987 would seriously propose a de-emphasis on the scientific approach to human problems that lies at the heart of general semantics. Yet, before an audience of general-semanticists, in his Alfred Korzybski Memorial Lecture of 1987, Dr. Paul did just that. It is as if he had gone before an audience of football players and proposed that the game of football be changed to one in which each team lets the other score. It is a bold proposal, but it is not consistent with the point of the game.

In the introduction to the second edition of his book, Korzybski said, "*Science and Sanity: An Introduction to Non-Aristotelian Systems and General Semantics*, first published in October, 1933, was intended to be a textbook showing how in modern scientific methods we can find factors of sanity, ..." <sup>[2]</sup> Science and sanity and the link between them make up the form and substance of Korzybski's life work. Given the fact that the scientific outlook so pervades general semantics, Dr. Paul's proposal seems theoretically and practically impossible, destructive of the underpinnings of GS.

To buttress his general theme that the scientific approach should be de-emphasized in GS, Dr. Paul made a number of comments that merit our attention.

He wrote, "If the insights of Alfred Korzybski are to have significant influence today and in the future they must be freed from the limitations of the language that he often used in expressing them." Assuming that he was referring to Korzybski's special terminology and not to A.K.'s occasional stylistic lapses into absolutism, Dr. Paul's statement strikes me as odd on several counts. The special terminology that Korzybski used to express his insights (a terminology that, among other things, automatically implied non-elementalism), gave his ideas