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BETWEEN TWO WORLDS: ALFRED KORZYBSKI AND GENERAL SEMANTICS*

Alfred Korzybski's life story is a compelling one. Born in Warsaw on July 3, 1879 into a noble family, Alfred Habdank Skarbek Korzybski was the son of Hrabina Helena Rzewuska and Hrabia Ładysław Korzybski, and was later known in the English–speaking world as Count Korzybski. He attended Politechnika Warszawska, where he earned an undergraduate degree in engineering, took some additional postgraduate courses at the University of Rome, and continued his studies in numerous fields on his own. A polymath and pioneer of interdisciplinary studies, his major intellectual influences include Albert Einstein in science, Cassius J. Keyser and Henri Poincaré in mathematics, William Alanson White, Ivan Pavlov, and Sigmund Freud in psychiatry and psychology, and Bertrand Russell, Alfred North Whitehead, Ludwig Wittgenstein, Josiah Royce, and indeed Aristotle, in philosophy.

As a young man, dismayed at the fact that peasants were forced to remain in an illiterate state by Czarist decree, he built a small school for the local peasantry on the country estate where had grown up, outside of Warsaw; consequently, he was arrested, sentenced to be imprisoned in Siberia, and saved only by his father's intercession. When he was 35–years–old, with the advent of the First World War, he volunteered to serve in the Russian Army, and while he was not awarded any rank above that of private, he was assigned to a Cavalry Detachment of the General Staff Intelligence Department, and had special privileges and duties representing the Second Army Intelligence Department on the battlefield. Korzybski was wounded in the leg and suffered other permanent injuries during the war, and subsequently was sent by the Russian Military Commission to North America as an Artillery Expert. Spending time in both Canada and the United States, he learned how to speak English (already being fluent in Russian, German, French, and his native Polish). When the Russian Revolution resulted in Russia's withdrawal from the war, he joined the French–Polish Army in 1917; he was appointed Secretary of the French–Polish Military Commission and served as a recruiting officer lecturing to Polish audiences in Canada and the United States, and the worked for the United States government's Fuel Administration lecturing to

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miners to encourage coal production and promote the sale of Liberty Bonds. Not long after the war ended, he met Mira Edgerly, a well known American portrait painter, and they were married in 1919.

He published his first book, *Manhood of Humanity: The Science and Art of Human Engineering*, in 1921 (in 1950, shortly after his death a second edition of *Manhood of Humanity* was published, in which the subtitle was eliminated)[1]. After an extended period of writing and research which included studying psychiatric methods firsthand at St. Elizabeths Hospital in Washington, D.C., he produced his magnum opus, *Science and Sanity: An Introduction to Non–Aristotelian Systems and General Semantics* (which some have referred to as Korzybski's Organon), which was published in 1933 (and subsequently in four more editions, the last two posthumously)[2]. In 1937, a transcript of his notes from lectures in general semantics given at Olivet College in Michigan was published under the title of *General Semantics Seminar 1937* (with two posthumous editions following)[3]. Lecturing and conducting seminars without an academic position, he gained a loyal following, and with the support of his students, was able to set up the Institute of General Semantics (IGS) in 1938 in Chicago.

In the years that followed, he offered regular seminars, lectures, and also personal counseling for his students. In 1940, he became a citizen of the United States, and in 1942, a group of his students founded the International Society for General Semantics (which merged with the IGS in 2004), and began publishing the journal, *ETC: A Review of General Semantics* the following year. There was a great deal of public interest in Korzybski and general semantics at that time, no doubt fueled in part by the Great Depression and the Second World War, and a number of popularizations of his work did much to spread the word about his ideas, which enjoyed great influence in many different areas of study and practice. Following the war, Korzybksi was forced to relocate the Institute to Lakeville, Connecticut, and finances remained a concerned for the Institute and for him personally. In 1948, he published an abridged version of his main work under the title of *Selections from Science and Sanity* (posthumously modified over eight printings, transfer to a CD–ROM, and now in a second edition).[4] *Time* magazine printed a brief profile of him in 1949, which began: *Yale University had never had a guest lecturer quite like the count. He was an egg–bald old (69) gentleman who dressed in Army–style sun–tans, refused to wear a coat or tie, and spent most of his time in a wheel chair.*[5] (Somewhat flippant in tone, the article was

[1] A. Korzybski, *Manhood of Humanity*, [2nd ed.] The International Non–Aristotelian Library/Institute of General Semantics, Lakeville, CT 1950.

[2] A. Korzybski, *Science and Sanity: An Introduction to Non–Aristotelian Systems and General Semantics*, [5th ed.] The International Non–Aristotelian Library/Institute of General Semantics, Englewood, NJ 1993.

[3] A. Korzybski, *General Semantics Seminar 1937*, [3rd ed.] Institute of General Semantics, Brooklyn, NY 2002.

[4] A. Korzybski, *Selections from Science and Sanity*, [2nd ed.] Institute of General Semantics, Fort Worth, TX 2010.

[5] *Always the Etc.?* in: *Time*, Febr. 16, 1949, p. 68.

incorrect on the point of the wheelchair, as he typically was able to walk with the help of a cane, and the wheelchair was used only to help Korzybski get from the Yale residence hall where he was staying to the lecture hall in timely fashion, as no cars were allowed on campus at that time.) Further on, the article relates:

> *Twenty years ago, few would have walked across the street to listen to Alfred Korzybski. Today, as founder of a whole new system of thought called general semantics, he has hundreds of followers all over the world, and the respect of many scientists and scholars. Disciples have written articles on his subject ranging from "General Semantics and Dentistry" to "General Semantics and the Teaching of Physics." Doctors, using general semantics, have claimed it helped cure everything from alcoholism to frigidity. There are General Semantics Societies in twelve cities from Winnipeg to Sydney. Sample members: Architect Frank Lloyd Wright, President George Stoddard of the University of Illinois, Actor Fredric March. The father of general semantics was born in 1879 – the same year, he likes to point out, as Einstein and Stalin.*[1]

Underlying this comment is the fact that Stalin would represent to Korzybski (and to most of us) the worst side of humanity, and Einstein (who Korzybski idolized) would symbolize the best that human beings could aspire to.

Alfred Korzybski passed away on March 1, 1950, due to the effects of a mesenteric (abdominal artery) thrombosis he experienced while working at his desk the day before. At that time, the IGS was just readying for publication the first issue of its own journal, the *General Semantics Bulletin*. The Institute established an annual Alfred Korzybski Memorial Lecture, beginning in 1952, which continues on to this day (along with both the *Bulletin* and *ETC*). Interest in Korzybski and general semantics continued to grow during the 1950s, but went into decline during the late 20th century. In 1990, through the efforts of two of Korzybski's closest associates, M. Kendig and Charlotte Schuchardt Read, Korzybski's various articles and papers were compiled and published under the title of *Collected Writings, 1920–1950*[2], but without much in the way of fanfare or exposure. The 21st century is likely to witness a reversal of fortune, however, as the first major biography of Alfred Korzybski, written by former IGS Trustee Bruce I. Kodish, is currently nearing completion, and signs of a nascent Korzybski revival have been seen in recent years.

[1] *Always the Etc.?*, p. 68.

[2] A. Korzybski, *Collected Writings, 1920–1950*, Institute of General Semantics, Englewood, NJ 2002.

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Time–Binding

Like so many of his generation, Korzybski was horrified at the senseless waste and utter carnage of the First World War, the first war to use weapons of mass destruction. And like so many of his generation, he was determined to do whatever he could to prevent such a recurrence of this sort of insanity and inhumanity. It was this moral imperative that motivated Korzybski, as he reasoned that the prevention of inhumanity would have to be based on a firm understanding of humanity, of what is it that makes us human, and how human beings can achieve their full potential. As an engineer at a time when positivism held sway, and the paradigm shift brought on by Einstein's revolutionary theories about the physical universe was still underway, Korzybski naturally turned to his background in science as he searched for answers. The 19th century had seen the introduction of the Laws of Thermodynamics, and with them the idea that energy, as opposed to matter, is the fundamental substance of the universe, and Einstein's famous equation, $E=MC^2$ cemented the view that matter was just a relatively stable form of energy. An engineer, Korzybski also looked at energy as exactly what is needed to get work done, understanding that different types of energy made a difference in the kind of work that could be performed.

From physics Korzybski turned to biology and reasoned that forms of life could be classified based on how they obtain energy to do their work (their work being mainly the business of survival, growth, and reproduction). The sun serves as the primary source of energy for life on earth, and plants have developed the most sophisticated method of capturing and storing that energy, photosynthesis; this understanding became the basis of the first major class of life that he identified, which he termed *chemistry–binding*. As the plant kingdom is typically contrasted with the animal kingdom, animals constituted his second major class of life, and he noted that animals are distinguished by their mobility, which they use to roam their environment and consume plants, thereby gaining the energy that plant life had stored via photosynthesis. He therefore referred to the second major class of life as *space–binding*. Korzybski's third major class of life is the human species. Although akin to the animal kingdom, and therefore incorporating space–binding, he argued that human beings are also capable of capturing and storing what could be considered another kind of energy: Knowledge. Animals are, for the most part, unable to pass on what they have learned to their progeny, whereas human beings have the ability to accumulate learning from one generation to the next, build on what previous generations have accomplished, and thereby accomplish more, get more work done in a more effective and efficient manner than was previously possible. In short, we can make progress, and Korzybski was working at a time when progress was seen as an unmitigated good. For this reason, he designated human beings the *time–binding* class of life.

Insofar as Aristotle was the first to create a system of biological classification, it is only fitting that this schema represents Korzybski's first step in developing a non–Aristotelian system. Clearly, however, Korzybski was not attempting to create a classification system on the order of Aristotle or Linnaeus, although he certainly incorporates a Darwinian understanding of

evolution. Rather, his interest is in developing a heuristic means for understanding what is distinctive about the human race. In his emphasis on energy, we can see an implicit response to Marx's materialist, scientific (at least according to Marx and his followers) approach, with its emphasis on means of production as the basis of human society. And while remaining unsympathetic to Communism as a political movement, Korzybski did engage in his own critique of capitalism and commercialism in *Science and Sanity*, and especially in *Manhood of Humanity*, where he presented his most detailed discussion of his three classes of life. There he argues that most of the wealth in the world was produced through the efforts of previous generations and therefore ought to be accounted as a legacy belonging to all of humanity. It follows that he considered economic inequality to be largely irrational and immoral, and the same holds true for social and political inequalities. But Korzybski did not predict or advocate revolution, but rather called for education. Ultimately, it was Einstein, not Marx, that he looked to for inspiration on how to reform society, and following Einstein's general theory of relativity, he referred to his own work as a *general theory of time–binding*.

Human Engineering

In identifying time–binding as the distinguishing characteristic of the human race, Korzybski also distinguished between different forms of time–binding within our species. In particular, he noted that the process of time–binding was for the most part slow and quite gradual until the introduction of science and scientific method, at which point it became possible to make progress at a geometric rather than arithmetic rate. That accelerated progress was limited, however, to the sectors of society concerned with science and technology, and did not apply to politics, economics, or our social, psychological, and ethical affairs. The criticism that our wisdom has not been keeping pace with our scientific and technological progress was a common one in Korzybski's time (and remains so today), and his solution seems logical enough for his times, that we need to generalize from our successes in science and engineering to society in its entirety, that we need to apply a scientific approach to all facets of human life. It follows that one specific solution to the world's ills that he put forth in *Manhood of Humanity* is to put scientists in charge, to institute government by technocracy. Korzybski was far from alone in taking this position and there is ample precedent, going all the way back to Plato's *Republic*, with its call for philosopher–kings. In Korzybski's utopia, scientists and engineers would become the new aristocracy, but of course this would be a meritocracy, and in this way humanity will have progressed from an infantile state into one of mature adulthood.

Korzybski opens *Manhood of Humanity* with the following statement:

> *It is the aim of this little book to point the way to a new science and art – the science and art of Human Engineering. By Human Engineering I mean the science and art of directing the energies and capacities of human beings to the advancement of human weal. It need not be argued in these times that the*

> *establishment of such a science – the science of human welfare – is an undertaking of immeasurable importance. No one can fail to see that its importance is supreme.*[1]

A little later on he adds:

> *For engineering, rightly understood, is the coordinated sum–total of human knowledge gathered through the ages, with mathematics as its chief instrument and guide. Human Engineering will embody the theory and practice – the science and art – of all engineering branches united by a common aim – the understanding and welfare of mankind.*[2]

Korzybski goes on to argue for a kind of scientific noblesse oblige:

> *The scientists, all of them, have their duties no doubt, but they do not fully use their education if they do not try to broaden their sense of responsibility toward all mankind instead of closing themselves up in a narrow specialization where they find their pleasure. Neither engineers nor other scientific men have any right to prefer their own personal peace to the happiness of mankind; their place and their duty are in the front line of struggling humanity, not in the unperturbed ranks of those who keep themselves aloof from life .... The task of engineering science is not only to know but to know how. Most of the scientists and engineers do not yet realize that their united judgment would be invincible; no system or class would care to disregard it. Their knowledge is the very force which makes the life of humanity pulsate. If the scientists and the engineers have had no common base upon which to unite, a common base must be provided. Today the pressure of life is such that we cannot go forward without their coordinating guidance. But first there must be the desire to act. One aim of this book is to furnish the required stimulus by showing that Human Engineering will rescue us from the tangle of private opinions and enable us to deal with all the problems of life and human society upon a scientific basis.*
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> *If those who know why and how neglect to act, those who do not know will act, and the world will continue to flounder. The whole history of mankind and especially the present plight of the world show*

[1] A. Korzybski, *Manhood of Humanity*, p. 1.

[2] A. Korzybski, *Manhood of Humanity*, pp. 7–8.

> *only too sadly how dangerous and expensive it is to have the world governed by those who do not know.*
>
> *In paying the price of this war, we have been made to realize that even the private individual can not afford to live wrapped up in his own life and not take his part in public affairs. He must acquire the habit of taking his share of public responsibility. This signifies that a very great deal of very simple work, all pointing in the direction of a greater work, must be done in the way of educating, not engineers and scientific men only, but the general public to cooperate in establishing the practice of Human Engineering in all the affairs of human society and life.*[1]

Here at last we see that Korzybski's ultimate aim is not a scientific dictatorship, but rather a democratizing of science, as well as a critique of the science of his day. In this sense human engineering, as an engineering of humanity, is essentially an educational initiative: when everyone is able to think and operate like scientists, humanity will be able to function in a mature, rational, peaceful, and fair manner (and this extends to scientists themselves, who often compartmentalize their work from the rest of their activities, and do not necessarily think and operate as scientists even when engaged in science). The task that Korzybski then set for himself was to develop a pragmatic system for teaching people the practice of scientific method as a form of rational and empirical evaluation of the environment, not as a specialized science, but as a generalized approach that anyone could employ. That system was general semantics, and it was predicated on the understanding that it is our species' unique capacity for language and symbolic communication that makes time–binding possible.

A Non–Aristotelian System

In *Science and Sanity*, Korzybski introduced general semantics as a non–Aristotelian system, with the understanding that it should not be considered the only non–Aristotelian system, that others might come after it (or be identified later). He saw general semantics as complementing the non–Newtonian physics and the non–Euclidean geometry associated with Einstein, and the non–Aristotelian designation is specifically directed towards Aristotle's logic, and more generally the essentialism associated with his philosophy, but not necessarily to Aristotle's entire body of work. And as with non–Newtonian physics and non–Euclidean geometry, Korzybski's non–Aristotelian system was not an outright rejection of Aristotelian logic, which Korzybski believed to be quite useful when employed in its proper context. Rather, he argued that the contexts in which Aristotelian logic applied were rather limited, and that a new mode of thought was needed for the much larger set of contexts in which that logic was not helpful (just as Newtonian physics

[1] A. Korzybski, *Manhood of Humanity*, pp. 10–12.

is useful on earth, but inadequate when dealing with the universe in its entirety). Korzybski believed that most people employed a form of Aristotelian logic in their everyday affairs, not in a formal way as in employing syllogisms, but intuitively, as a matter of their common sense descriptions of the world. Aristotelian logic is a deductive system and, in the same way, most people employ what Korzybski termed an intensional orientation, holding their presuppositions and prejudices as axiomatic, judging what they encounter according to their pre–existing beliefs and opinions, and holding generally not being open to changing their ideas about the world. Modern science, on the other hand, favors induction in conjunction with the empirical method, and Korzybski's non–Aristotelian system incorporates what he termed an extensional orientation, one that requires suspension of judgment, objective gathering and analysis of facts, and continual reality–testing.

The three classic laws of Aristotelian logic are the Law of Identity, the Law of Non–Contradiction, and the Law of the Excluded Middle. Together, they can be interpreted as representing a priori essentialist assumptions about the world, assumptions that people generally take for granted, but that contemporary science does not uphold. These assumptions include the notion that a thing is what it is, permanent and unchanging, and that it is always and everywhere the same, that things can always be evaluated in terms of binary oppositions, either/or categories, so that there are no ambiguities, no grey areas or middle ground, that relationships are static and things are discrete and contained, rather than part of a process. Korzybski's Non–Aristotelian system, in contrast, rests on the notion that there are no identity relationships in nature, i.e. that no two phenomena are never exactly alike, and for that matter, no single phenomena is every identical to itself, insofar as everything is a form of energy and in constant dynamic flux, at least on the subatomic level. Just as Korzybski argued in *Manhood of Humanity* that we need to take into account the dimension of time in considering the debt we owe to the past, as well as our responsibility to the future, he demonstrates in *Science and Sanity* that Aristotle's logic, when interpreted as faithfully representing the structure of the world, implies a frozen reality, ignoring the dimension of time and the change it represents (much as Zeno's Paradox also is based on a misunderstanding of time).

To supersede the laws of Aristotelian logic (except for the instances when they could be appropriately applied), Korzybski put forth three Non–Aristotelian Principles of Thought. First and foremost is the Principle of Non–Identity, which extends both to the world where all phenomena are unique events unfolding in time, and also to the ways in which we perceive, understand, and communicate about the world. It is here that Korzybski's famous phrase, *the map is not the territory*, comes into play. The worst case of mistaken identity that we can be a party to is one in which the symbol is mistaken for its referent, for whatever portion of reality it represents. The metaphor of the map was central for Korzybski, because he understood that, as meaning–makers dependent on language and symbolic communication for our time–binding capability, we are map–makers, making mental maps of the world that we encounter, and sharing them with others. And our most

important maps are not drawn, but spoken, and written down, hence Korzybski also insisted that *the word is not the thing it represents*. Or as he was fond of saying, *whatever you say a thing is, it is not*.

His Second Non–Aristotelian Principle is the Principle of Non–Allness, which reminds us that our perception and knowledge about any given event or object is necessarily incomplete, and all the more so our depictions and descriptions. Returning to the map metaphor, the Principle of Non–Allness reminds us that maps do not represent all of a territory, and by the same token, words do not say all there is to say about any phenomena, there is always more to be said, and there are some things that words cannot describe.

Korzybski's Third Non–Aristotelian Principle is the Principle of Self–Reflexiveness. Whereas reality refers to nothing apart from itself (unless we confer additional meaning onto it), representations have the potential to be self–referential, that is to refer back to themselves or to other representations. So, for example, if we are standing within a territory and looking at an ideal map of that territory, it would contain within it a representation of itself, a map of the map. Ideally, the map within the map would also contain a representation of itself, a map of a map of a map, and so on *ad infinitum*. In the same way, some of our statements may be about the world as we experience it, but we can also make statements about statements, and statements about those statements, and so on. We can react to our reactions, evaluate our evaluations, question our questions, and so forth. This of course may lead us further and further away from reality (or at least from our experience of it), and therefore is an inherent characteristic and potential problem of language and symbolic communication. It is also the basis of many a paradox, and Korzybski was conversant with Whitehead and Russell's Theory of Logical Types; Gödel's Incompleteness Theorem too is relevant in this context. Moreover, self–reflexiveness suggests subjectivity, as that ideal map would also include the individual looking at the map, and perhaps even the mapmaker if he or she were present. Korzybski was familiar with Pavlov, who defined a symbol as a sign of a sign, that is, a self–reflexive sign, and along similar lines, self–reflexiveness has been viewed as the basis of what is distinctive about human consciousness (e.g. consciousness of consciousness, or self–consciousness).

Consciousness of Abstracting

In *Science and Sanity*, Korzybski puts forth *abstracting* as a key term, using the verb form to represent it as a process we engage in, rather than abstraction as a thing. Abstracting is a scientific term, in chemistry referring to the extraction of one substance out of another, and more generally to abstract means to remove, to take away. Korzybski used the term in a special, technical sense in his system to refer to a process common to both perception and symbolic communication, sensation and signification, distinguishing between different orders, or levels of abstraction:

> *As abstracting in many orders seems to be a general process found in all forms of life, but particularly in humans, it is of importance to be clear on this subject and to select a language of proper structure. As we*

know already, we use one term, say 'apple', for at least four entirely different entities; namely, (1) the event, or scientific object, or the sub–microscopic physico–chemical processes, (2) the ordinary object manufactured from the event by our lower nervous centres, (3) the psychological picture probably manufactured by the higher centres, and (4) the verbal definition of the term. If we use a language of adjectives and subject–predicate forms pertaining to 'sense' impressions, we are using a language which deals with entities inside our skin and characteristics entirely non–existent in the outside world. Thus the events outside our skin are neither cold nor warm, green nor red, sweet nor bitter [etc]., *but these characteristics are manufactured by our nervous system inside our skins, as responses only to different energy manifestations, physico–chemical processes,* [etc]. *When we use such terms, we are dealing with characteristics which are absent in the external world, and build up an anthropomorphic and delusional world non–similar in structure to the world around us. Not so if we use a language of order, relations, or structure, which can be applied to sub–microscopic events, to objective levels, to semantic levels, and which can also be expressed in words. In using such language, we deal with characteristics found or discovered on all levels which give us structural data uniquely important for knowledge. The ordering on semantic levels in the meantime abolishes identification. It is of extreme importance to realize that the relational* [etc]., *attitude is optional and can be applied everywhere and always, once the above–mentioned benefits are realized. Thus, any object can be considered as a set of relations of its parts* [etc]., *any 'sense' perception may be considered as a response to a stimulus* [etc]., *which again introduces relations,* [etc]. *As relations are found in the scientific sub–microscopic world, the objective world, and also in the psycho–logical and verbal worlds, it is beneficial to use such a language because it is similar in structure to the external world and our nervous system; and it is applicable to all levels. The use of such a language leads to the discovery of invariant relations usually called 'laws of nature', gives us structural data which make the only possible content of 'knowledge', and eliminates also anthropomorphic, primitive, and delusional*

> *speculations, identifications, and harmful semantic reactions.*[1]

Simply put, Korzybski's orders of abstraction begin with the Event Level, which represents whatever is going on (some of Korzybski's followers adopted the acronym WIGO for What Is Going On), the reality that we can never quite know. It is only through an excitation or irritation of our nervous systems by stimuli that we gain any indication of the world (and that includes the internal environment of the biological body), and based on this stimuli we build up an inner representation of outer events that may be more or less structurally similar to each other. This process of sense perception constitutes what Korzybski called the Object Level and, at this point, the process is generally the same for animals and human beings. Human beings are unique, however, in that we can continue to abstract, moving from the non–verbal (by which Korzybski meant non–verbal understanding rather than the more recent concept of nonverbal communication) to Verbal Levels.

The first Verbal Level relates to the process of naming and describing, from which we can move on to higher and higher levels of abstraction as we employ self–reflexiveness, or simply assign labels and categories, make inferences and utilize generalizations, and leave out more and more details about the phenomenon in question, a process that invariably involves selection and, therefore, subjectivity. Moving up through the levels may also involve drawing conclusions, arriving at opinions, making judgments, and forming beliefs (and ultimately may lead to action, which returns us to the Event Level). And while some words typically function on a higher level of abstraction than others, for example *mammal* is more abstract than *dog*, Korzybski notes that it is also true that the same word may function on different levels of abstraction and, thereby, create confusion (for example, chair may be used to refer to one specific piece of furniture, or to the entire class of chairs); he termed this quality of verbal communication the *multiordinality* of words.

In order to help individuals to understand the process of abstracting, Korzybski developed a model that he called the Structural Differential. Although it has been criticized as being overly complex, he felt it was an effective teaching tool, especially when used not just as a visual aid, but in its tactile dimension, with fingers tracing the pathways of abstracting (perhaps inspired by the Rosary). In the Structural Differential, the broken parabola represents the Event Level, of which we only encounter a small part and the circle stands for the Object Level, the one on the left representing the limited abstracting ability of animals, as it does not continue on into higher levels of abstraction. The tags that follow represent the Verbal Levels. Strings running through the holes stand for the abstracting process, so that as we move through the levels, fewer strings continue. Finally, there is a feedback loop from our high level abstractions back to the Event Level, as the process of abstracting influences the ways in which we act upon the world.

[1] A. Korzybski, *Science and Sanity*, pp. 384–385. Words in brackets replace abbreviations that were used in the original text.

Korzybski's stated goal was *consciousness of abstracting*, that is, he wanted to raise people's consciousness by making individuals conscious of the process of abstracting, and of how Aristotelian thinking takes them further away from any connection with reality, and therefore with sanity (which is generally understood as the ability of separate reality from fantasy and cope with reality). He used the phrase *semantic reaction* to refer to the process by which we assign meanings to phenomena, think and talk about things, and respond to them; in other words, semantic reaction is synonymous with *evaluation*. Through consciousness of abstracting, he wanted individuals to become conscious of their semantic reactions and to take control of them, rather than to be controlled by them. Following Pavlov, he distinguished between signal reactions, which are reflexive, immediate, kneejerk responses to stimuli, and symbol reactions, which are reflective, delayed, mindful responses. Human beings are unique in our capacity for symbol reactions, which follows from our ability to engage in symbolic communication. Therefore to be fully human and fully in control of ourselves, we need to learn how to employ symbol reactions and control our use of signal reactions. In this way, individuals need not act like Pavlov's dogs in response to propaganda and can avoid psychological and emotional difficulties that stem from inappropriate and dysfunctional personal responses.

Korzybski's use of *semantic reaction* and *general semantics* diverged significantly from typical meanings attributed to the term *semantics*, as his concern was not with dictionary definitions, but with meaning, understood as a response to a stimulus, with the way that we come to learn about and relate to our environment. He came to regret his choice of terminology because of the tendency to conflate or confuse *semantics* and *general semantics*, but was never able to come up with a suitable substitute, although he did toy with terms *general anthropology* (obviously, this term had already been pre–empted by others), and *up–to–date epistemology* (also *applied epistemology* has been used in reference to general semantics, but of course epistemology is a term that is too obscure for the general audience Korzybski was trying to reach).

Non–Elementalism

Korzybski's non–Aristotelian approach also constituted a shift away from the atomism of the pre–Socratics and the emphasis on analysis that it engendered, towards a more holistic, ecological perspective, one that emphasized synthesis. As he explains in *Science and Sanity*:

> *It is quite natural that with the advance of experimental science some generalizations should appear to be established from the facts at hand. Occasionally, such generalizations, when further analysed, are found to contain serious structural, epistemological and methodological implications and difficulties. In the present work one of these empirical generalizations becomes of unusual importance, so important, indeed, that Part III of this work is devoted to it.*

> *Here, however, it is only possible to mention it, and to show some rather unexpected consequences which it entails.*
>
> *That generalization states: that any organism must be treated as–a–whole; in other words, that the organism is not an algebraic sum, a* linear *function of its elements, but always* more *than that. It is seemingly little realized, at present, that this simple and innocent–looking statement involves a full structural revision of our language, because that language, of great pre–scientific antiquity, is* elementalistic, and so singularly inadequate to express non–elementalistic *notions. Such a point of view involves profound structural, methodological, and semantic changes, vaguely anticipated, but never formulated in a definite theory. The problems of structure, 'more', and 'non–additivity' are very important and impossible to analyse in the old way.*[1]

General semantics, then, is non–elementalistic as well as non–Aristotelian, and in this we can see as well the influence of Einstein's theory of relativity, in which space and time are not absolutes, but rather functions of the relationships among phenomena. Moreover, space and time are not actually separable according to Einstein, hence his non–elementalistic neologism, *spacetime*. By the same token, Freud and others argue for the indivisible unity of mind and the emotional and intellectual sides of the mind. Korzybski initially described general semantics as taking an *organism–as–a–whole* approach and later modified it to further reduce elementalism by identifying the approach as *organism–as–a–whole–in–an–environment*. A non–elementalistic perspective is one that does not engage in oversimplification or overgeneralization, but rather admits to complexity as well as interconnection. As such, it goes hand in hand with what Korzybski termed an ∞–valued orientation, as opposed to the typical one–valued universalism, or two–valued polar oppositions (either/or thinking) of most systems of thought, or even the three–valued orientation of dialectical systems. An infinite– or multi–valued orientation complements the extensionalism of scientific method. And Korzybski's non–elementalism anticipates the development of cybernetics and systems theory (sometimes known as general system or general systems theory, following the example of general semantics). Korzybski, also associates non–elementalism with a non–additive and nonlinear approach, departing even from Newtonian efficient cause (cause–effect). This too is characteristic of systems theory, with its concept of *emergence*, as well as media ecology (e.g. Marshall McLuhan's observations

[1] A. Korzybski, *Science and Sanity*, pp. 64–65.

concerning the shift from linear mechanical and typographic technologies to the nonlinearity of the electric circuit and the electronic media)[1].

The Structure of Language

Korzybski states that *a language, any language, has at its bottom certain metaphysics, which ascribe, consciously or unconsciously, some sort of structure to this world.*[2] One aspect of language that he found to be particularly problematic is the verb *to be*. Aristotelian logic begins with the Law of Identity, in which the words *is* and *equals* are interchangeable (*A=A* being the same as *A is A*), and the "*is* of identification" is commonly used in everyday language. So, for example, someone may say that John is a criminal and that seems to imply that everything there is to say about John is summed up by saying that he is a criminal, and that everything associated with the label of criminal applies to John, that it is a statement structurally identical to saying that one plus one is two. In addition to avoiding the "*is* of identification", Korzybski also advised us to avoid the "*is* of predication", which is associated with adjectives rather than nouns. So, for example, if we tell a child that he is bad, we project all of the qualities associated with being bad onto the child, essentially saying that the child is *all* bad and *always* bad. Of course, such practice is frowned upon today, owing in large part to the influence of general semantics. Korzybski was not opposed to the use of the verb *to be* in its entirety, it is important to note, as he saw no problem with its use as an auxiliary verb (e.g. it *is* raining), or simply to indicate existence (I am), although some of his followers have attempted to eliminate the use of the verb altogether, at least in written communication. He did want to raise people's consciousness about the metaphysics of *to be*, however, to make them aware of how the verb might lead us astray, and he firmly believed that we would be better off avoiding such Aristotelian usages.

To help us get the non–Aristotelian metaphysics into our nervous systems, he introduced several extensional devices, such as indexing, which involves adding a subscript in order to differentiate between different uses of a word (or levels of abstraction). For example, chair_1 is not chair_2 is not chair_3, as each use of the word *chair* may refer to a specific individual chair, a specific type of chair, the category of chairs in general, or to different meanings (chair as furniture vs. chair as head of a committee, chair as noun vs. chair as verb). Indexing is a way to keep in mind that the same word is being used in different ways, and to keep track of the different meanings. Dating is a similar device, in this case using a superscript to indicate the temporal context of a given phenomenon. For example, Joe^{1980} is not Joe^{2010}, Joe may have been a student then, and a teacher now. $\$20^{2010}$ certainly does not equal $\$20^{1960}$. In addition to contextualization, dating more generally serves to remind us that the world is constantly changing, and that our language does not take that into account.

[1] M. McLuhan, *Understanding Media: The Extensions of Man*, critical edition by W. T. Gordon, Gingko Press, Corte Madera, CA 2003.

[2] A. Korzybski, *Science and Sanity*, p. 89.

A third major device used by Korzybski is the *et cetera*, that is, adding *etc.* to the end of a sentence in order to keep in mind the Principle of Non–Allness, that there is always more to be said on the subject that we cannot help but have left things out of whatever we were saying. Korzybski also thought it important to use hyphens to avoid elementalism, as in the terms *neuro–linguistic*, *neuro–semantic*, and *neuro–epistemologic* that he coined to describe general semantics. And he advocated the use of quotation marks to remind ourselves and others when we are using words on a high level abstraction, underdefined terms, or language that is otherwise ambiguous (e.g. "emotional" maladjustment, "intellectual" achievement). Some have suggested that he invented the nonverbal gesture in which fingers are used to create quotation marks in the air, now in common use, and whether he did or not, he certainly did promote that convention. Korzybski also thought it important to employ qualifying terms when we make statements, for example adding phrases like *it seems to me*, *in my opinion*, *from my point of view*, and also *in our society*, *in contemporary culture*, etc. In this way, we not only provide further contextualization, but also remind ourselves of the subjectivity inherent in the process of abstracting. On the other hand, employing quantifying terms would lend a measure of objectivity to our statements, for example stating the exact temperature instead of just saying that it is hot or cold out today. As a measure to be taken against absolutism, Korzybski warned us against allness terms such as *all*, *always*, *never*, *everything*, *nothing*, *everyone*, *nobody*, *absolutely*, etc., and, in contrast, to employ plurals (e.g. instead of asking *what is the cause of war?*, ask *what are the causes of wars?*).

Following Whitehead and Russell, Korzybksi favored the use of propositions as the only scientifically valid form for language, although he did allow that other uses, such as poetry, could have something to contribute within a general semantics framework. He warned against confusing propositions with inferences, and the general problems caused by the untested assumptions that we make, and about the uncritical use of statements of value, opinion, and judgment, as this type of language could be particularly pernicious. Statements of definition were seen as neutral generally, except when such tautologies are mistaken for propositions. Generally speaking, however, while Korzybski recognized that the capacity for language is the core of our humanity, he expressed a suspicion of words that extended beyond the desire to reform the ways in which we use language, and he was adamant about the need to remain in touch with the non–verbal level of abstracting. And while direct perception was best, the non–verbal visual image was still better than verbal description at representing phenomena in his estimation (this position is consistent with the fact that modern science is an outgrowth of the visualism of western culture). Ironically, he also argued for the pre–eminence of the highly abstract language of mathematics which, despite its absolute divorce from reality, is entirely unambiguous, propositional, and, according to Korzybski, non–Aristotelian. When applied to phenomena, mathematics allows for unparalleled precision, which is also consistent with a general semantics approach; calculus in particular appealed to Korzybski, in that it was a form of mathematics that tried to capture the dynamic quality of

the physical world. Generally speaking, much of the pragmatic success that science lays claim to has involved some form of mathematics, so a privileging of this language is consistent with the idea of general semantics as scientific method writ large.

Korzybski's Ongoing Influence

Korzybski found a sympathetic audience in the United States, where tradition did not have a strong hold on the culture, and great emphasis has been placed on technology and science. Moreover, his work fit in well with the American philosophical tradition of pragmatism, and Korzybski's was very much an anti–philosophical philosophy, one that was critical of many forms of philosophy as meaningless wordplay. Indeed, his approach was not entirely inconsistent with the American strain of anti–intellectualism, an outgrowth of an anti–elitist democracy, and his aim was to create a school of sorts, a teachable educational system that would benefit everyone, not just the privileged few (and he was able to without being sent to Siberia). Many of his ideas made their way into the American educational system, and one of the great successes of general semantics has been its contributions to education regarding stereotypes, prejudice, and scapegoating, especially during the Civil Rights era.

Korzybski's followers have included a number of prominent individuals, including S. I. Hayakawa, an American (originally Canadian) English professor who went on to become President of San Francisco State University, and then serve one term in the United States Senate. Hayakawa wrote the most popular book to be published on general semantics, *Language in Thought in Action*, originally published in 1941, and now in its fifth edition[1]. Korzybski was critical of Hayakawa's approach, however, and the two had a falling out. When asked the reason, Hayakawa answered, *Words*. Another prominent disciple of Korzybski was Stuart Chase, an economist who was highly influential in the New Deal initiative of President Franklin Delano Roosevelt; Chase published the first popularization of Korzybski's work, *The Tyranny of Words*, in 1938[2]. Another highly significant individual in Korzybski's circle was the prominent speech pathologist Wendell Johnson, who produced an excellent academic introduction to general semantics, *People in Quandaries*[3]; his son Nicholas Johnson is a member of the Federal Communications Commission. Numerous other works summarizing and applying Korzybski's system have been published over the years, including *Drive Yourself Sane*, co–authored by Susan Presby Kodish and Korzybski biographer, Bruce I. Kodish[4].

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[1] S. I. Hayakawa & A. R. Hayakawa, *Language in Thought and Action*, [5th ed.] Harcourt, San Diego 1990.

[2] S. Chase, *The Tyranny of Words*, Harcourt, Brace, New York 1938.

[3] W. Johnson, *People in Quandaries: The Semantics of Personal Adjustment*, Harper & Row, New York 1946.

[4] S. P. Kodish & B. I. Kodish, *Drive Yourself Sane: Using the Uncommon Sense of General Semantics* [2nd ed.] Extensional Pub., Pasadena, CA 2001.

As noted above, Korzybski's work anticipates cybernetics and systems theory, and had a significant impact on Gregory Bateson, Buckminster Fuller, Ludwig von Bertanlaffy, the psychologist Paul Watzlawick, the biologists Humberto Maturana and Francisco Varela, and the sociologist Niklas Luhmann. In the field of computing, Korzybski's ideas helped to shape the thought of Douglas Engelbart and Alan Kay, developers of the Graphical User Interface (GUI) – the Windows and Macintosh interfaces that are ubiquitous today can therefore be traced back to Korzybski's non–Aristotelian system and visualist orientation. In many ways, Korzybski's general semantics prefigures the development of cognitive science, as can be seen, for example in the work of Douglas Hofstadter. Korzybski's influence in psychotherapy and the human potential movement was quite significant as well and extended to Alfred Adler, founder of Rational Emotive therapy; Fritz Perls, founder of Gestalt Therapy; Richard Bandler, founder of Neuro–Linguistic Programming (NLP); and also to Tony Buzan, the British inventor of mind maps; Alan Watts, a British popularizer of eastern mysticism; and L. Ron Hubbard, founder of Dianetics and Scientology. His work has been incorporated into the field of communication, and the study of journalism, and he also has had an impact of the literary world, as William S. Burroughs was one of his students, and Korzybski and general semantics appear in the writings of science fiction novelists A. E. Van Vogt, Robert Heinlein, and Robert Anton Wilson, and less directly in Frank Herbert, Samuel R. Delaney, and Phillip K. Dick (general semantics also comes into play in the 1965 French film *Alphaville*, directed by Jean–Luc Goddard, as well as Alfred Hitchcock's 1963 Hollywood motion picture, *The Birds*). Korzybski also influenced literary and cultural theory, from Kenneth Burke's rhetoric to poststructuralists, such as Jacques Derrida and Michel Foucault, and postmodernists such as Jean Baudrillard, Jean–François Lyotard, and Fredric Jameson[1].

Korzybski's general semantics parallels the linguistic relativism of Edward Sapir, Benjamin Lee Whorf, and Dorothy Lee, the cultural–historical psychology of Lev Vygotsky and Alexander Luria, the semiotics of Charles Saunders Pearce, and C. K. Ogden and I. A. Richards, and the philosophical work of Alfred North Whitehead, Bertrand Russell, and Ludwig Wittgenstein (whom he credits as influences in *Science and Sanity*). Common to all of them is the idea that the structure of our mode of communication has much to do with our thought and behavior, individually and collectively, and this is the basis of the field that has come to be known as media ecology. Within this field, Korzybski is acknowledged by Lewis Mumford and Marshall McLuhan, appears prominently in the writings of Neil Postman, who served as editor of *ETC* for a decade[2]. As originally identified by Postman, Korzybski is consid-

[1] For a fascinating discussion of Korzybski's influence on several aspects of the contemporary intellectual landscape see Th. Bardini, *When the Map Becomes the Territory: Korzybski and Cyberculture* in: *General Semantic Bulletin* 76, 2009/2010, pp. 37–49.

[2] See for example N. Postman, *Crazy Talk, Stupid Talk*, Delacorte, New York 1976, N. Postman, *Conscientious Objections: Stirring up Trouble about Language, Technology, and Education*, Alfred A. Knopf, New York 1988, N. Postman, *The End of Education: Redefining the Value of School*, Alfred A. Knopf, New York 1995 and N. Postman & Ch. Weingartner, *Teaching as a Subversive Activity*, Delta, New York 1969.

ered to be part of the media ecology intellectual tradition, as well as the founder of the discipline of general semantics[1].

General semantics is consistent with the fallibilism of Charles Saunders Pearce, John Dewey, and Karl Popper, but has also been likened to Buddhism and Taoism in its severe critique of language. There is an inherent tension in Korzybski's approach between the emphasis on empiricism extended to everyday life, and the more esoteric exploration of individual consciousness. Between the outer world of the environment and the inner world of the mind rest our forms of mediation, our senses, images, and words, and it is along that boundary and bridge, that Korzybski labored in an effort to reconcile the two worlds and thereby fulfill the promise of humanity's potential.

With the permission of the Institute of General Semantics.

[1] For more on this see L. Strate, *Echoes and Reflections: On Media Ecology as a Field of Study*, Hampton Press, Cresskill, NJ 2006 and L. Strate, *On the Binding Biases of Time and Other Essays on General Semantics and Media Ecology*, Institute of General Semantics, Fort Worth, TX 2010.