APPENDIX I.

A BRIEF SURVEY OF THE HISTORY OF LINGUISTICS

A Brief Survey of the History of Linguistics

The roots of linguistics go back into the mists of Time, when nobody knew how to write down their thoughts. Our ancestors' awe of Language and its mystical power survives in legends of creation passed down generations in different parts of the world. For example, the sacred legends of the Quiché-Mayan Indians of Guatemala tell us that "the first man was able to *reason* and *speak* and *knew* all things from the beginning"
Wayne L. Allison:
In the Beginning Was the Word: The Genesis of Language.
Retrieved February 9, 2008 from:
http://w2.byuh.edu/academics/domckay/Speeches/Mckay/W_Allison.htm

It is remarkable that people, before they even knew how to write, had linked **reasoning** with **speaking.** We can see the same connection in the origins of some familiar words:

logos: < Greek ***logos*** "**word**, speech, discourse," also "**reason**," from PIE base **leg-* "to collect" (with derivatives meaning "to speak," on notion of "to pick out words")
http://www.etymonline.com/index.php?l=l&p=10

logo: 1937, probably a shortening of *logogram* "sign or character representing a word" (1840), from Gk. ***logos*** "word" + *gram* "what is written" (Ibid.).

Maya folklore tells us that cosmic forces (Gods) created man by trial and error. Man turned out to have the ability to think and feel, just as they (Gods) did. This made the gods uncomfortable, so they "breathed a cloud over the mortals' eyes, just to keep them humble. Later, when men had become extremely powerful and numerous, the gods deprived them of their original language and gave each group a language of its own. This effectively curtailed their ability to work together."
http://w2.byuh.edu/academics/domckay/Speeches/Mckay/W_Allison.htm

Maya myths also tell us that the gods had created animals, and had commanded them to speak, but the beasts could only hiss, growl, cackle or moo. Because they could not worship their creators in a "proper manner," animals "were condemned to be killed and eaten by mankind" (Ibid.).

Invention of the Alphabet in Egypt about 2000 BC

About 4000 years ago now, ancient Egyptians invented these little shapes you are looking at right now: the letters of the alphabet (they did look different then, and

they may look different in many modern languages, but the ***principle*** of using ***written symbols*** to represent individual sounds that combine to make a word is the same). Unlike the earlier, non-alphabetic systems (pictograms, hieroglyphs, etc.), this was the most efficient and 'user-friendly' way of writing down ideas.

It was one of the most important inventions of all time! The Alphabet transformed the ancient world: it enabled people to communicate their thoughts /ideas over distance, and through Time! Through *writing*, our ancestors speak to us directly, communicating to us their thoughts, beliefs, and experiences. In the Judeo-Christian tradition, the Book of Genesis tells us that man was created in God's image, and with the power of speech:

"And out of the ground the Lord God formed every beast of the field, and every fowl of the air; and brought them unto Adam to see what he would call them: and whatsoever Adam called every living creature, that ***was*** *the name thereof" (Genesis 2:19).*

St. John's Gospel gives us an even more beautiful (from the philosophical point of view) account of how life began:

"In the beginning was the Word, and the Word was with God, and the Word was God" (St. John's 1:1)

Linguistics Developed Independently in Several Societies

Speculations about Creation and human nature gradually focused on Language, which sets us apart from all other living things. We now know that linguistic thought developed independently in several societies, such as Mesopotamia (present-day Iran and Iraq), Ancient Greece, India, China, and Arabia. How can we be sure of that? Our knowledge comes from the surviving written records – we can only know what has been, if we have evidence of it. And if you are wondering, why linguistic thought had developed independently in different societies, just imagine what life was like in those days: there was little contact between isolated communities, most people never traveled far from their villages, and, as there were no telephones or Internet that now 'connect' the world, people were unaware of what was going on in far-away places – they did not even know they existed!

In some cultures, early linguistic analysis was part of religious thought and writings (particularly in discussions of the religiously preferred spoken and written forms of sacred texts in Hebrew and Arabic).

In ancient India, people also thought about and analyzed their language, **Sanskrit** (which means, *perfect*, or *complete*) for many centuries. They noticed that there were different *kinds* of Sanskrit: the language of the ***Vedas*** (Sanskrit for *Divine Knowledge*), vernaculars, etc. **Panini**, the Indian grammarian who lived over 2,500 years ago, described the entire grammar of the Sanskrit language in just 4,000

sutras (sentences). Panini's Grammar, translated in the West only in **1891** – imagine that! – is one of the world's earliest works of ***descriptive linguistics***.[1]

Both India and China had produced native schools of linguistic thought, foreshadowing equivalent Western ideas by more than a thousand years! However, because Europeans knew nothing about it, modern linguistics is based on European intellectual tradition, which originated in Ancient Greece. We can distinguish roughly **three major phases** in the development of linguistics:

Phase 1: Philosophy → Prescriptive Grammar & Logic

In its **earliest phase**, going back over 2,500 years ago, linguistics was part of **Philosophy**, the '***Mother of All Sciences***.'[2] Ancient Greek thinkers started questioning the mystical belief that language was a gift from the gods, and saw the origins of speech in human imitation of natural sounds. They also speculated about the relationship between Language and Thinking, and so 'invented' both *Grammar* and *Logic*, laying down the rules for efficient use of both language and reason.

Ancient Thoughts about Language:

On Social Role & Power of Language: Gorgias (~ 485-380 BC): *Praise of Helen*
"The power of speech has the same relation to the order of the soul as drugs have to the nature of bodies. For as different drugs expel different humors from the body, and some put an end to sickness, and others – to life, so some words cause grief, others joy, some fear, others render their hearers bold, and still others drug and bewitch the soul through an evil persuasion . . ."

On Language Change: Socrates (469–399 B.C.): *Cratylus*
By the dog of Egypt! I have not a bad notion which came into my head only this moment: I believe that the primeval givers of names were undoubtedly like too many of our modern philosophers, who … think that there is nothing stable or permanent, but only flux and motion, and that the world is always full of every sort of motion and change. The consideration of the names which I mentioned has led me into making this reflection.

[1] **Descriptive linguistics** - a description (at a given point in time) of a language with respect to its phonology, morphology, syntax and semantics without value judgments.
Source: http://www.thefreedictionary.com/descriptive+linguistics

[2] Up until just over a hundred years ago, science was even called natural philosophy; in ancient times, philosophers studied the natural, as well as human world. As knowledge was accumulated in specific areas, sciences began to split off from the body of philosophy. This 'branching off' process is still ongoing - a number of interdisciplinary sciences emerged quite recently, i.e., biochemistry (the chemistry of the living cell), quantum mechanics, cybernetics (computer science), etc.

On the Symbolic nature of Language: Aristotle (384-323 BC):
Spoken words are the symbols of mental experience and written words are the **symbols** of spoken words. Just as all men have not the same writing, so all men have not the same speech sounds, but the mental experiences, which these directly symbolize, are the same for all, as also are those things of which our experiences are the images.

A **verb** is that which, in addition to its proper meaning, **carries with it the notion of time** … It is a sign of something said of something else.
(*On Interpretation*)

Prescriptive Grammar
Ancient Greek philosophers 'invented' the so-called Prescriptive Grammar (the kind you learnt in school). It prescribes 'correct' and condemns 'incorrect' usage, which ultimately promotes more effective communication through standardizing language use in the society, but does not even try to understand Language as a whole.
Prescriptive Grammar of Latin and Greek was taught in the monasteries of medieval Europe for centuries. Technological advancement led to a re-awakening of interest in Greek and Roman Classical writing and the emergence of prescriptive grammars for vernaculars (the printing press made education more accessible to the common man). The invention of gunpowder started a new Exploration Age, marked by European expansion (→ increased cross-cultural contacts!) and the development of science.

Phase 2: Philology → Comparative & Historical Linguistics
About 200 years ago, all the new knowledge thus acquired led to the sensational discovery that languages were in many ways alike, and could be compared with one another. Comparative studies identified remarkable structural similarities between Latin, Greek, and Sanskrit; these could only be due to a common source (parent language, no longer spoken).

In the mid-1850s, Darwin's Theory of Evolution turned our understanding of the world upside down. Scholars then realized that languages were also constantly changing, just like all living species. This realization prompted, by analogy, attempts to map out the evolution of Language through the reconstruction of 'parent' or proto-languages. Ferdinand de Saussure (1857-1913), known as the 'Father' of modern linguistics, noted in his lectures that work in comparative and historical linguistics had proved that

"A bond or relationship existed between languages often separated geographically by great distances" and that "there were also great language families, in particular the one which came to be called the Indo-European family"

(Saussure: Lectures on General Linguistics, 1910-1911 Retrieved 02/17/08, from http://www.marxists.org/reference/subject/philosophy/works/fr/saussure.htm)

To detect changes in a language/ between related languages, philologists examined and compared written records (manuscripts and documents) from different times – that is why their method of investigation is called diachronic. Because comparative and historical study was mostly concerned with the forms of words and not with how the words were used, it was around that time that the word linguistics came into use, to distinguish this research from philology.

Phase 3: Modern Linguistics

Ferdinand de Saussure caused a major shift in the direction of linguistic research about a hundred years ago (that is why he is often regarded as the Father of modern linguistics. He criticized the then common method of linguistic investigation, i.e., comparing old texts or manuscripts, and argued that written words were merely dead representations of Language, and not its living substance:

"…the written word is confused with the spoken word; two superimposed systems of signs which have nothing to do with each other, the written and the spoken, are conflated" (Ibid.).

He thought that linguistics should aim to describe Language as it is at any one time (synchronically).

Instead of mulling over old texts, trying to figure out how random bits and pieces of language changed over time, linguistics for the first time in history attempted to understand the *mechanism* of Language, to get a glimpse of the WHOLE of linguistic structure – this is why Saussure's approach became known as Structuralism.

Exclusive focus on concrete physical structures of the world's languages eventually failed to capture the 'universals' of linguistic structure; yet, compared to the philological studies of the nineteenth century, Saussure's concern with 'language in all its manifestations' highlighted the ***'utility of linguistics'*** and made the study of language relevant to the 'general culture':

> As long as the activity of linguists was limited to comparing one language with another, this general utility cannot have been apparent to most of the general public, and indeed the study was so specialised that there was no real reason to suppose it of possible interest to a wider audience. It is only since linguistics has

> become more aware of its object of study, i.e. perceives the whole extent of it, that it is evident that this science can make a contribution to a range of studies that will be of interest to almost anyone.
> …Language plays such a considerable role in human societies, and is a factor of such importance both for the individual human being and human society, that we cannot suppose that the study of such a substantial part of human nature should remain simply and solely the business of a few specialists; everyone, it would seem, is called upon to form as correct an idea as possible of what this particular aspect of human behaviour amounts to in general.
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> *Saussure's Third Course of Lectures on General Linghuistics (1910-1911)* publ. Pergamon Press, 1993. http://www.marxists.org/reference/subject/philosophy/works/fr/saussure.htm (27/06/2008)

The abstract nature of Language, the fact that it 'cannot be put squarely in front of us', despite the physicality of its structures, sets linguistics apart from the precise and natural sciences. Saussure, aware of the subjectivity of linguists' judgments, warned his students that

> There is no sphere in which more fantastic and absurd ideas have arisen than in the study of languages. Language is an object which gives rise to ***all kinds of mirage***. (Ibid.)

Saussure was one of the first scholars[3] to view Language as one **structural system** He puzzled over its distinct 'complementary facets, each depending on the other':

> (1) The ear perceives articulated syllables as auditory impressions. …One cannot divorce what is heard from oral articulation. Nor, on the other hand, can one specify the relevant movements of the vocal organs without reference to the corresponding auditory impression.
>
> (2) But even if we ignored this phonetic duality, would language then be reducible to phonetic facts? No. **Speech sounds are only the instrument of thought**, **and have no independent existence**. Here another complementarity emerges, and one of great importance. A sound, itself **a complex auditory-articulatory unit**, **in turn combines with an idea, to form another complex unit, both *physiologically* and *psychologically***. Nor is this all.
>
> (3) Language has **an individual aspect and a social aspect**. One is not conceivable without the other. Furthermore:

[3] Wilhelm von **Humboldt** (1767-1835), a German scholar, had voiced similar thoughts on language and linguistics almost a century before, but the extent of his influence on de Saussure is uncertain (Robins: 1995)

> (4) Language at any given time involves **an established system and an evolution**. At any given time, it is an institution in the present and a product of the past. At first sight, it looks very easy to distinguish between the system and its history, between what it is and what it was. In reality, the connexion between the two is so close that it is hard to separate them. … There is no way out of the circle.

Saussure's Solution: Structuralism

Only one approach to the multiple contradictions and dualities of Language could, in Saussure's view, loosen this intractable knot: focus on linguistic STRUCTURE, which he saw as the only thing that is '*independently definable*,' concrete, 'something our minds can satisfactorily grasp':

> The linguist must take the study of linguistic structure as his primary concern and relate all other manifestations of language to it (Saussure: 1983).

Since Language has 'no discernible unity,' Saussure saw only one way out of the 'circle of contradictions' – to cut off the pesky tangles altogether, and focus solely on Language structure:

> A science which studies linguistic structure is not only able to dispense with other elements of language, but is possible only if those other elements are kept separate (Ibid.)

Whereas linguistics in the 19th century expanded our knowledge in highly specialised areas, such as phonetics and phonology, historical and comparative studies, etc., Ferdinand de Saussure was interested in connecting the 'bits and pieces' of language into an integrated ***structure*** of arbitrary symbols (Linguistic Signs), with the aim of uncovering the *mechanism* of Language.

Fundamentals of Saussure's Structuralism

Saussure defined Language as a '**system of distinct signs corresponding to distinct ideas**' (Ibid.). He insisted that a language **system** can be *separated/ abstracted* from the complexities of speech and studied on its own, arguing that 'Dead languages are no longer spoken, but we can perfectly well acquaint ourselves with their linguistic structure' (Ibid.).

The 'cornerstones' of Saussure's theory:

1. **'Signs comprising a language are not abstractions, but real objects'**: you need only to open a dictionary to see lists of Linguistic Signs (words and phrases), all representing that essential 'union of form and idea.'

These, to Saussure, are 'concrete objects' existing in society by virtue of a 'kind of contract agreed between the members of a community.'

2. **'Linguistics studies these *objects* and the *relations* between them'**: i.e., both *units* and *rules* of the system are the '*concrete entities*' of the linguistic science.
3. **Any linguistic entity exists only by virtue of the association between signal and signification** (i.e., form + concept): it stops being a part of language 'the moment we concentrate exclusively on just one or the other.' Each linguistic sign is the association between the *Signifier* (signal, sound form) and the *Signified* (concept, idea).

4. **Each linguistic sign is an integral part of the language system because of its *difference* from all the others**: *cat* is different from *dog*, as it is from *man* or *bird,* etc.; if each sign were not different from all the other ones, the system would simply not be there.

5. ***Meaning* vs. *Value* of the Linguistic Sign**: words have conventional meanings outside of discourse (words in isolation); in context, their meanings acquire *Value* through the influence of the other signs in the sequence. Compare:
    a. ***Beef*** – the meat of a cow
    b. *To have* ***beef*** with sth/ sb (idiomatic expression) – to be opposed to sth/sb.

Saussure's Language Mechanism

"It is the combination of the idea with a vocal sign which suffices to constitute the whole language,"[4] claimed de Saussure. Language, he argued, is a complex, interconnected system of Linguistic Signs that works to create meaning because of the

(a) **difference** (opposition) between linguistic forms, created by different sequences of linguistic units (he referred to these differences/ oppositions as 'syntagmatic interdependencies'), and

(b) **interplay** between the syntagmatic and the associative relations between linguistic signs in the creation of Sign Value[5].

[4] Saussure: 4 November 1910. Retrieved 29 September 2008 from http://www.marxists.org/reference/subject/philosophy/works/fr/saussure.htm

[5] In a linguistic state … everything depends on relations. …The relations and differences between linguistic items fall into two quite distinct kinds, each giving rise to a separate order of values. The opposition between these two orders brings out the specific character of each. They correspond to two different forms of mental activity, both indispensable to the workings of a language. Words as used in discourse, strung together one after another, enter into relations based on the linear character of languages … Combinations based on sequentiality may be called *syntagmas.*

APPENDIX I.

Ferdinand de Saussure saw the 'language mechanism' in the simultaneous functioning of syntagmatic and associative relations between Linguistic Signs. 'Groups of both kinds are in large measure established by the language,' he told his students. 'This set of habitual relations is what constitutes linguistic structure and determines how the language functions. … Syntagmatic groups formed in this way are linked by interdependence, each contributing to all. Linear ordering in space helps to create associative connexions, and these in turn play an essential part in syntagmatic analysis' (Saussure: 2006, pp. 126–128). Contrast, he stressed, or *opposition*, between existing forms (inflexions, etc.) plays an important role in creating the intended meaning.

The existence of flexion (conjugations, declensions) and other linguistic paradigms forced de Saussure to caveat the fundamental principle of synchronic linguistics, that 'The Sign Is Arbitrary.' Even though ultimately 'the link between signal and signification is arbitrary' within a language system, **'**the sign may be motivated to a certain extent**'** he conceded (Ibid., p. 67):

> Relative motivation implies (i) the analysis of the term in question and, hence, a syntagmatic relation, and (ii) appeal to one or more other terms, and hence an associative relation. …
> …The entire linguistic system is founded upon the irrational principle that the sign is arbitrary**.** Applied without restriction, this principle would lead to utter chaos. But the mind succeeds in introducing a principle of order and regularity into certain areas of the mass of signs. That is the role of relative motivation. If languages had a mechanism which were entirely rational, that mechanism could be studied in its own right. …
> There exists no language in which nothing at all is motivated. … Between the two extremes – minimum of organization and minimum of arbitrariness – all possible varieties are found (Ibid).

Saussure believed, however, that many aspects of Language were beyond the scope of linguistics:

> … However we approach the question, no one object of linguistic study emerges of its own accord. Whichever way we turn, the same dilemma

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… Outside the context of discourse, words having something in common are associated together in the memory. In this way they form groups, the members of which may be related in various ways. This kind of connexion between words is of quite a different order. It is not based on linear sequence. It is a connexion in the brain. Such connexions are part of that accumulated store which is the form the language takes in an individual's brain. We shall call these *associative relations.* Syntagmatic relations hold *in praesentia.* They hold between two or more terms co-present in a sequence. Associative relations, on the contrary, hold *in absentia.* They hold between terms constituting a mnemonic group Saussure: 2006, pp. 121–122.

> confronts us. Either we tackle each problem on one front only, and risk failing to take into account the dualities …; or else we seem committed to trying to study language in several ways simultaneously, in which case the object of study becomes a muddle of disparate, unconnected things. By proceeding thus, one opens the door to various sciences – psychology, anthropology, prescriptive grammar, philology, and so on – which are to be distinguished from linguistics. These sciences could lay claim to language as falling into their domain; but their methods are not the ones that are needed (Saussure: 1910).

Only one approach to Language could, in Saussure's view, resolve its contradictions and dualities – an exclusive focus on linguistic *structure* which alone are 'independently definable,' concrete, 'something our minds can satisfactorily grasp':

> The linguist must take the study of linguistic structure as his primary concern and relate all other manifestations of language to it. … A science which studies linguistic structure is not only able to dispense with other elements of language, but is possible only if those other elements are kept separate (Saussure: 1983).

Despite his brilliant insight into the essence of language as being the indivisible union of form and idea, Ferdinand de Saussure fractured his Linguistic Sign into the Signifier and the Signified and examined them separately, thus letting the "logical side of the language, involving invariables unaffected by time, race, culture or geography" slip away.

American Structuralism

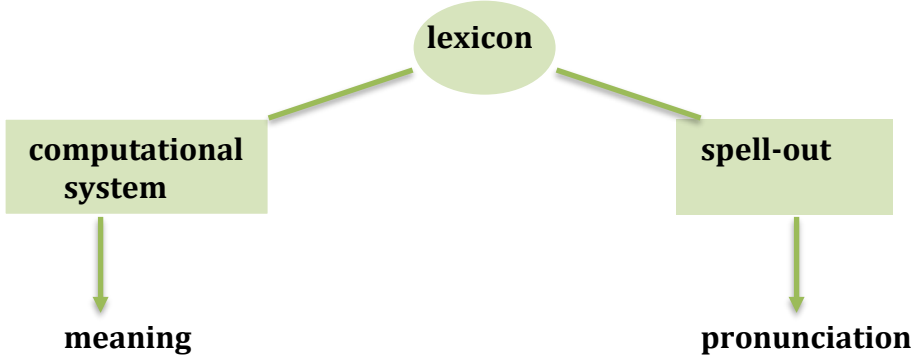
American structuralism took Saussure's focus on the 'independently definable,' concrete, and 'graspable' structures to the extreme, denying the feasibility or relevance of investigating meaning (Bloomfield, etc.) and ran with it. Bloomfield and his followers are credited with developing useful analytical methods for discovering the *basic units* and structures of unwritten languages (i.e., *phonemes* and *morphemes*), and with shifting the focus of investigation from written to spoken language. However, they ignored the psychological aspect of language, **meaning**, without which language loses its essence and purpose (sounds without meaning are not human language).

Chomsky's Transformational Grammar

Noam Chomsky brought meaning back into the picture; his ***'Syntactic Structures'*** (1957) transformed linguistics from a mechanical analysis of linguistic forms into a major social science relevant to everyone (esp. to psychologists, sociologists, anthropologists, philosophers, etc.). Chomsky wanted to discover not just the structures of language, but what it is in our heads that ***produces*** utterances (he called it the rules of Universal Grammar).

Chomsky's neo-structuralism (Transformational Generative Grammar in all its permutations) repeated Saussure's mistake of splitting meaning from structural forms and examining them separately:

- Saussure split his Linguistic Sign (words) into the Signifier (form) and the Signified (meaning) and examined them and the relationship between them separately;
- Chomsky split larger units – sentences, whole utterances – into Deep Structures (meaning) and Surface Structures (forms) and examined them separately. The stark juxtaposition of meaning and form is most glaring in the 'bare bones' of the standard TGG theory, the Minimalist Program:



Need for a New Synthesis

After almost 200 years of accumulating knowledge in the specialized fields of comparative, historical, and descriptive linguistics, psychology and cognitive science, we should now rise to a new level in our spiral ascent to Understanding. Friedrich Engels put human knowledge in historical perspective, tracing its evolution through millennia:

"When we consider and reflect upon Nature at large, or the history of mankind, or our own intellectual activity, at first we see the picture of an endless entanglement of relations and reactions, permutations and combinations, in which nothing remains what, where and as it was, but everything moves, changes, comes into being and passes away. We see, therefore, at first the picture as a whole, with its individual parts still more or less kept in the background; we observe the movements, transitions, connections, rather than the things that move, combine, and are connected. This primitive, naive but intrinsically correct conception of the world is that of ancient Greek philosophy, and was first clearly formulated by Heraclitus: everything is and is not, for everything is fluid, is constantly changing, constantly coming into being and passing away.

But this conception, correctly as it expresses the general character of the picture of appearances as a whole, does not suffice to explain the details of which this

picture is made up, and so long as we do not understand these, we have not a clear idea of the whole picture. In order to understand these details, we must detach them from their natural, special causes, effects, etc. This is, primarily, the task of natural science and historical research ... A certain amount of natural and historical material must be collected before there can be any critical analysis, comparison, and arrangement in classes, orders, and species. The foundations of the exact natural sciences were, therefore, first worked out by the Greeks and later on, in the Middle Ages, by the Arabs. Real natural science dates from the second half of the 15th century, and thence onward it had advanced with constantly increasing rapidity. The analysis of Nature into its individual parts, the grouping of the different natural processes and objects in definite classes, the study of the internal anatomy of organized bodies in their manifold forms — these were the fundamental conditions of the gigantic strides in our knowledge of Nature that have been made during the last 400 years. But this method of work has also left us as legacy the habit of observing natural objects and processes in isolation, apart from their connection with the vast whole; of observing them in repose, not in motion; as constraints, not as essentially variables; in their death, not in their life."

(Engels: *Socialism: Utopian & Scientific*)

At the dawn of human knowledge, we saw the world as it is (one Whole), in all its interconnectedness and motion, however fuzzy this view was. Our knowledge grew in the process of analysing Nature into its individual parts – we divided the world around us into distinct categories and studied them separately. The habit of examining things in isolation prevented us from seeing things in a larger context; we scrutinized parts of the whole, but were blind to how they related to each other. We got used to viewing things through the zoom lens of analysis:

"A thing either exists or does not exist; a thing cannot at the same time be itself and something else. Positive and negative absolutely exclude one another; cause and effect stand in a rigid antithesis, one to the other.

This "metaphysical mode of thought, justifiable and necessary as it is in a number of domains, sooner or later reaches a limit, beyond which it becomes one-sided, restricted, abstract, lost in insoluble contradictions. In the contemplation of individual things, it forgets the connection between them; in the contemplation of their existence, it forgets the beginning and end of that existence; of their repose, it forgets their motion. It cannot see the woods for the trees.
For everyday purposes, we know and can say, e.g., whether an animal is alive or not. But, upon closer inquiry, we find that this is, in many cases, a very complex question, as the jurists know very well. They have cudgelled their brains in vain to discover a rational limit beyond which the killing of the child in its mother's womb is murder. It is just as impossible to determine absolutely the moment of death, for physiology proves that death is not an instantaneous, momentary phenomenon, but a very protracted process.

In like manner, every organized being is every moment the same and not the same; every moment, it assimilates matter supplied from without, and gets rid of other matter; every moment, some cells of its body die and others build themselves anew; in a longer or shorter time, the matter of its body is completely renewed, and is replaced by other molecules of matter, so that every organized being is always itself, and yet something other than itself.

Further, we find upon closer investigation that the two poles of an antithesis, positive and negative, e.g., are as inseparable as they are opposed, and that despite all their opposition, they mutually interpenetrate. And we find, in like manner, that cause and effect are conceptions which only hold good in their application to individual cases; but as soon as we consider the individual cases in their general connection with the universe as a whole, they run into each other, and they become confounded when we contemplate that universal action and reaction in which causes and effects are eternally changing places, so that what is effect here and now will be cause there and then, and vice versa.
Dialectics comprehends things in their essential connection, motion, origin and ending. … Nature is the proof of dialectics, and it must be said for modern science that it has furnished this proof with very rich materials increasing daily, and thus has shown that Nature works dialectically and not metaphysically; that she does not move in the eternal oneness of a perpetually recurring circle, but goes through a real historical evolution. In this connection, Darwin must be named before all others. He dealt the metaphysical conception of Nature the heaviest blow by his proof that all organic beings, plants, animals, and man himself, are the products of a process of evolution going on through millions of years. …
Dialectics looks at the world as a process and claims that everything is in constant motion, change, transformation, development. It attempts to understand the "internal connection that makes a continuous whole of all this movement and development. From this point of view, the history of mankind no longer appeared as a wild whirl of senseless deeds of violence, all equally condemnable at the judgment seat of mature philosophic reason and which are best forgotten as quickly as possible, but as the process of evolution of man himself. It was now the task of the intellect to follow the gradual march of this process through all its devious ways, and to trace out the inner law running through all its apparently accidental phenomena."

Source: http://www.marxists.org/archive/marx/works/1880/soc-utop/ch02.htm#010

Dialectical Linguistics

In contrast to the metaphysical method of descriptive linguistics, dialectical linguistics views Language as a complex, living Whole, in all its interconnectedness, movement, development, and contradiction. Unlike Structuralism, which looks exclusively at linguistic structures, dialectical linguistics views Language as a social tool used to spin and share with others individual and communal 'webs of significance.'

APPENDIX I.

We must learn to think out of the box of our habitual metaphysical reasoning, for 'observing natural objects and processes in isolation, apart from their connection with the vast whole; observing them in repose, not in motion; as constraints, not as essentially variables; in their death, not in their life" makes it impossible to understand their nature. Therefore, in order to catch a glimpse of Language '***live***,' we must use dialectics to synthesize all that we have learnt so far about its multifaceted dualities and contradictions. Dialectical linguistics takes a holistic view of the complex whole of language, viewing it in the unity of all its dualities. Vygotsky's ***Analysis into Units*** and David Hume's **universal principles of human understandin**g (Re: Notes following Sutra 13) provide the wide-angle lens that captures language *live*.

APPENDIX I.

http://www.art-mind-soul.com/003-Yin-Yang.enlarge.html
YIN-YANG
A painting by Jim Thompson