IV-4   In a Word

Hierarchical relations are built from discrete parts
communicated as words, thoughts, beliefs, theories,
motifs and modules. Concepts emerge as parts are
combined and made to work together in play with reality.

Words do not discriminate truth from lie, fact from fiction, or real
from imagined. Words do not validate or confer existence.
Individual entities are assigned a named class on the basis of their
common content or lack of it. Events relate to the changes in
relation to time and context of entities. Attributes such as *dry
wetness*, *hot ice*, *soft hardness*, or *all-knowing* may be conceivable to
the mind but scarcely provide awareness.

Language is a way we peer into each other.
Words of people who have used words effectively!

- I gotta use words when I talk to you (*T. S. Eliot*)
- A very interesting thing to know is how you are feeling inside
you to the words that are coming out to be outside of you
(*Gertrude Stein*)
- One must be very aware of one's own very limited point of
view, the "first-person-singular" aspect of everything we say (*P.
W. Bridgman*)
- With continued application of words concepts are attached to
structures of activities external to mind. Words are tragedies of
concepts that they harbor by being metaphor. If men do not pour
new wine in old bottles, they do something almost as bad: They

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invest old words with new meanings (*Herbert A. Simon*)

- The meaning of the word is its use (*Wittgenstein*)

- The difference between the right and almost right word is the difference between lightening and the lightening bug (*Twain*)

- It is an old and consistent tradition with us to be concerned with the words we use and their purification (*Oppenheimer*).

- In order to comprehend the whole the mind is not a vessel to be filled, but a fire to be kindled by words (*Plutarch*)

- .. and his words burned like a lamp (*Ecclesiaticus*).

- Words are like leaves; and where they most abound, much fruit of sense beneath is rarely found (*Pope*)

- Words drip with meaning *(Berenson)*

Word as concept modules. Language is about grasping parts to access more. We construct the future from bits and pieces that come our way from the past with an affinity for our minds. Irrespective of their origins, such meaningful concepts are often rooted in the physical and psychological realities. By rearranging all such bits and pieces we create semblance of order and certainty about complex worlds.

At a very basic level we name things to communicate and manipulate parts of sense experience. Developments of tools, alphabets, words, numbers, and relations have facilitated understanding of shared realities. With strategy of divide-and-conquer, and of refinement through trial-and-error, words break the cognized experience into parts to dissect usable concepts. Some words do so better than the others. As bits and pieces for communication, words work on the principle of *garbage in and garbage out*. It is an acknowledgement humans do not experience undifferentiated worlds. They remain outside our awareness even as we scramble with such humbug by loading it with our

own perceptions.

Linguistic evolution is the study of processes and strategies to explore the concept space with word boundaries that come to be intuitively obvious for meaningful communication. Analysis of an assertion tends to focus on the parts where logical relations are likely to be rooted in reality. Deeper truth values emerge from the scrutiny of the implications and converse of the assertion. Hallmark of contemplative understanding is to grasp the hierarchy *through parts* and not just enumerate parts. The process is likely to be more useful if it works in both directions: From whole to the parts, and from parts to the whole.

Politics of Parts

In August 1624 by the French Parliamentary order Etienne de Clave was arrested and convicted for proposing a non-Aristotelian theory of elements. It was not about science or the nature of the universe. By invoking that the whole could be broken into discrete parts, those who were in power felt that the idea could be applied to analyze and scrutinize all forms of higher order. So the conviction was about preserving the status-quo of the ideas that empower the authorities. It was not a struggle for truth but about the dogmatism to limit the latitudes of human thought.

Viability of a part. A part is a unit of the class: A grain (a unit) of wheat is the representative of a heap of wheat. Such a concept of the smallest viable discrete part does not suffer from the Greek paradox of infinite divisibility. A heap can be divided into equal parts until we are left with two grains. It is a critical limit below which if further divided the heap (a set of two) is lost: A single grain can not be called a heap. Subdivision of a grain further

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destroys the identity of the unit.

An understanding of how parts make up the whole is critical for ascertaining the validity of the analysis and the reconstruction of the hierarchy of the parts. A loss of the attribute of the unit or the set is necessarily a loss of their identity. It is also a limitation of analytical approach where *a cow is not a mere sum of its body parts*. For reconstructing the whole from the parts it is necessary not only to put back all the parts, but also in a suitable relationship. Otherwise *a cow can be made to dance like a peacock*. Consider the analytical significance of the assertion that all living beings are constructed with cells as the unit of organization.

Conception of the whole from parts is necessarily directed for a purpose. Recognition of specific patterns is a necessary part of mathematics as much as of music and arts. Achieving a consistent pattern is a key to understanding the function of the part as well as the reconstructed whole. Such analytical ability to manipulate and share a description of the associations unleashes power to reason, infer, and validate. What emerges or remains outside calls for extra functionality and interoperability.

Room for Doubt