IV-5 To a Concept

In philosophy as well as in physics even the most familiar and fundamental percepts are based on assumptions about perception and reality. Not many of these can be proven.

Potential of a conceptual association through parts, including words and models, lies in facilitating cognition to validate perceptions. It is not as much about new facts but about new ways of thinking about facts. Such understanding takes us from the prior and current body of knowledge (facts, experiments, observation, data) on a path (direction, trend). In this search purpose of reasoning is not to get entangled with the past but find an unencumbered way towards the future. Knowing, understanding, analysis and associations make the world of our concern accessible to make assertions.

Languages are play with notions of things and actions. The pay off comes as concept boundaries and their meaning is redefined with experience. Although such context and constraint are recognized through usage, through words one learns in stages to distinguish, validate and expand their identities. Here a role of communication is to identify behavior choices. That is also a major limitation: Awareness reduced to words can become the total awareness, and thus limit utility of the experience as mere buzz word.

Reason for ordering words is to nurse experience with thought as the product of reason. Field for such word interactions is scoped through definitions that help us identify the variables

and parameters. A matrix of observable particulars and meaningful generalizations provides a system for implementing thought to make the experienced world more accessible. Patterns that emerge relate to something more fundamental - possibly analogous to the fundamental particles. Such reality-based conceptual building blocks, sought to understand the material worlds, have been remarkably successful. Hierarchy of interactions and relations through the building blocks is meant to bind the smallest to the largest of the conceivable worlds. For the success of a hierarchical enterprise, it is useful not only to salvage relevance, but also understand instabilities and liabilities as part of what follows from exploration through parts.

Worlds beyond the sense experiences are invoked as the metaphysical worlds (not unlike virtual or augmented). Words and motifs are invented to communicate such worlds that hardly communicate awareness. Their affinity to real world experience is often to the feelings such as a fear of the unknown. Such association remains self-referential. Not all cultures deal with such imagined worlds in the same way. Two extremes are noteworthy. In English metaphysical worlds are objectified as noun. In the natural languages, metaphysical worlds are expressed through verbs as part of the subjective yet vital and causal aspect of the universe.

For utilitarian purposes we name things and identify actions to elaborate relations. A better grasp follows with an appreciation of the reality-based constraints as explored through curiosity driven questions that often start with what, when, where, how much, why. Curiosity guides word assertions to identify, organize, and categorize the cognized world to take stock of where we are and where we ought to be. It is not possible without an awareness of the experience.

Is language needed for cognition? Like Evolution and astronomy, linguistics is an observational science whose subjects are too distant in time or space, or too human to treat like guinea pigs for controlled manipulations. Most of our knowledge about human language ability has come from the freak instances of *The Wild Child* or *The Wolf Children* where infants were left isolated so that they did not learn the use of language during their formative years. One of the most widely studied cases is of Genie. After total solitary confinement for 11 of her 13 years, in November 1970 she came to the attention of a Los Angeles county welfare office.

Within a year she learnt to vocalize and use sentences with few words with occasional use of verb. After that, even after several years of interactions with a variety of people, her comprehension of syntax did not develop any further. Slowly, Genie developed abilities for nonverbal communication. She could organize, categorize, draw silhouettes, and identify perspectives. She could recall shapes and order of pieces in a structure. She scored high on spatial tests for identifying the missing pieces. She had ability to manipulate concrete spatial shapes and forms that require focus on color, number, and size of objects. By all criteria she was not mentally retarded. She was always correct on the cognitive matters. On the gestalt tests Genie scored higher than any one in the literature. Her comprehension was better expressed through visual than verbal means. Even after years Genie did not learn grammar. She did not grasp the meaning of *Thank you,* nor did she learn to say *Hello* in response to *Hello.* Fifteen years later she became a master seamstress. Yet, she never rehabilitated to the normal living. *Is there a lesson here for teaching and learning? Did she become an object of exploitation for the sake of knowledge?* **Based on the available knowledge she could not be treated for her own sake.**

An abstraction: Language communication is our collective struggle to articulate and relive patterns and rhythms of our experience. Through language we also make our feelings, perceptions, and imaginations known. We make our internal and external identities known by communicating in terms of ideas and generalizations. Through conceptual transformations not only we grasp and communicate the past and understand the present, but live into extrapolated future worlds.

We conceptualize future at instinctive, intuitive and intellectual levels. In such abstract images concepts are the products of inputs. Use of viable motifs is a necessity to understand and consolidate experience. It is possibly as a necessary outcome of the short term memory. The sensory information arrives in packets and chunks with affinity for the motifs. For cognitive processing we become aware of such packets that are only the pieces of the continuous unceasing external world. Information from identifiable pieces is compared with those from the past. Uncertainty persists until a basis is established in terms of a suitable knowledge base where inconsistencies are already addressed and contradictions are weeded out. Remaining doubt can be addressed with further search.

Apparently, we use the same mechanism for processing wide-ranging information at virtually all levels. Perception of the whole facilitates filling gaps of the unknown parts. It is the basis for bounded rationality that both the known and the unknown are part of the complex universe that exists and influences our actions and behaviors. Elimination of the non-existent parts from the unknown wards against illusions and delusions, and provides a way out of mazes, labyrinths, dead-ends, and paradoxes.

Room for Doubt