

## IV-26 Interdependence for Independence

For an individual purpose lies in opportunities offered by the chance to further the purpose of the group that can not rely on chance.

We are not alone, and we have we achieved utopia. Even the most techno-optimist among us yearns for simpler times. Most people also appreciate the futility of such a romantic desire because very few would like to go back to the conditions of even hundred years ago. A more realistic question is: Can we achieve an egalitarian balance for sustainability in a garden of our own creation? It calls for looking into the way we make and avail choices as individuals and as groups. How do we address problems built into the human natures? Are these ingrained in the self-image?

We need a strategy for defining the problem in a solvable way. The challenge of integration of new insights and technological changes makes us ponder basic precepts and reconsider prior assumptions. The underlying process is probably a primordial search motivated by the perception of interdependence, if not oneness, with the biological diversity to guide us beyond predatory individualism. It is an understanding of the continuity that brings us together in our enterprises and survival interests. It is like the *imaginings that reflect everything else in the self, and the self in everything else.*

Much of what distinguishes humans is of epigenic origins. Having established the physical basis of biology in genes, it is fair to ask how epigenic variables determine the apparently chaotic

diversity. Human genes have hardly changed in the last 10,000 years. Even if we want to go the way of designer genes to move beyond the evolutionary trial and error, do we know what we want even as an individual? We do not yet know how even the simplest behaviors are controlled by the gene products. We are beginning to discern when the genes go wrong, and soon we may be able to fix such mishaps.

**Killer primate?** Most animals and many human cultures have sustained and flourished with their concern for life rather than preoccupation with death. If *man styles himself in the image of his gods*, with such socially acceptable role models it is easy to see how some cultures have adopted judgmental, exploitative and vindictive codes of conduct.

In the aftermath of violence of 20th century humans often see themselves in the image of "killer primate." Such aggressors who believe that *they know better* have shaped most of the human political history. Aggression and impulsive actions that lead to conflicts are integral and necessary part of nature. Whether or not we are born with such tendencies, many social interactions encourage if not celebrate it.

On the other hand, reconciliation and peace-making are also integral part of primate behaviors. We may not necessarily be born to be good. We learn through dealings that it pays to be good, cooperative and conciliatory. It may avoid conflict if exercised before a conflict, and avoids future conflicts if exercised after a conflict. Desire to avoid potential conflicts is also the basis for altruism. However what is unnatural is to use of violence to resolve conflict. Such unnatural behaviors are encouraged through beliefs and technologies. Virtually all the recent studies seem to redeem the other primates, whereas humans in the image of omniscient try to find redemption through violence.

Not a single organism can be described satisfactorily as a protein computer. The system poses a challenge for analytical methods of interpretation. The number of possible variables is too large for a meaningful description by the methods that have been so successful in the physical sciences. Simply put, there are far too many epigenic states spread over a population of individuals. For such group behaviors we lack sufficient criteria to identify and distinguish the meaningful differences that support diverse and chaotic states. Although some events and functions can be described, our ability to provide insights and predict future outcomes of diverse groups is far from satisfactory.

Analytical approaches necessarily build objectives into the starting assumptions. Grand successes of the analytical worldview championed by physics have established the physical limits of reality as the boundary condition for viable thought. It has come with the conviction that all reality can be sensed, perceived, and interpreted ultimately in energetic terms related to the structure and motion of atoms and molecules. As the search for Truth has gone to the way-side, these empirical insights have fundamentally become the dogmatic and axiomatic view of reality. There is nothing obviously wrong with it. But in a perverse way, the value of the analytic world-view is that it is value free. It calls for glue for synthesis from the parts.

**Interdependence for independence.** Can rational insights be obtained within the paradigm of biological diversity with which we share common goals? At a very basic level, evolutionary and survival paradigms connect us through our interdependences. Although the hierarchy and connectivity is based on chemical and molecular processes, the higher level of hierarchy emerges into web of social, political and economic relations. Sustainability of an individual as well as the class follows from the sum total of the

interplay of the internal abilities, genetic attributes, environment, and the forces of the external world. It relates survival needs to the ability to retain one's identity as an entity as well as the group.

According to an ancient tradition the range of necessary and sufficient criteria and conditions for dependence and interdependence for humans is covered by six attributes: food, body, sense organs, awareness of the environment (shelter), language (communication), and sensibility to put it all together into making suitable choices for existence (decision-making). In the Euro-centric context such ideas have been celebrated piecemeal as freedom from want and freedom of choice - misplaced in the context of notions of competition and individualism. Justification for the necessary and sufficient conditions for interdependence is intrinsic in questions such as: When do goals become rights? What do we get from others and what do we give in return?

Independence and interdependence are intertwined for sustainable existence. Beyond the direct survival needs lies the attribute of language that calls for the independence for communication to share, process, and transfer experience. It is a critical requirement for the evolution, survival, development and perpetuation of viable societies. It is not a mere coincidence that virtually all movements towards independence of nations start by reverting to the language of the common people. Modern biology is beginning to realize the importance of language communication among the birds, insects, and mammals. Survival value of communication through chemical senses of bees, ants and other insects is also beginning to be appreciated, as well as our interdependence on such life forms.

Consequence evaluation is integral part of sustainable independence. Random acts do not add up to anything in

particular. Ability to nurture sensibility and *to put it all together* enhances chances of survival. Epigenic behaviors build on the short term feedback between thought, experience, words, and actions. Actions with a defined trajectory cohere into desirable outcome that create value and opportunity.

**Consilience or just reasoning?** Crux of reasoning through altogether different but all-inclusive means is called consilience. It is the propensity for seeking validation. Through such inquiry one endeavors to find naturally hierarchical structures behind observations and criteria. It is also a way to rationalize the world-view connoted by the words to describe the worlds that we are trying to understand yet lie beyond our grasps. Inquiry begins with representation (describe, examine and rationalize) to find structure behind observations. *How will you look for it if you do not know at all what it is?* Numerous solutions have been offered to the various incarnations of this *how do you know* question. In scope they range from *anything goes* to the game theory and Turing computational procedures. None are entirely satisfactory.

Distinguishing between distinct inferences and probable premises forms the basis for establishing knowledge and its utility. In the end, the relationship between facts and syllogistic reasons for a hypothesis may be a matter of philosophical debate about a system at equilibrium. In search of a strategy for viable behavior for sustainability we have to think about situations that are not at equilibrium and about which we cannot even intuit. Dealing with the evolutionary steady-state dictates prudence of a relationship with feedback. *We may be able to design a perfect human being long before we know what those traits for perfection are.* It is insightful.

# Room for Doubt

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