IV-16 Play With Unknown and Unexpected

My goal is simple: It is complete understanding of the universe.

Stephen Hawking

Play behavior is common to all animals with cognitive abilities. On the way to viable perception, most play acts rely on inputs and feedback that is critical for learning the restraints and constraints on the variables for acceptable behaviors. As in tales and parables, play acts explore the similarities and differences by including animals and imaginary characters with unusual abilities to communicate. Operationally, play is active interaction of the observer with happenings and events for identifying variables and relations. Play devices appear to be useful for collecting information from diverse and unexpected sources under unusual conditions to deal with the unknown.

Although we seem to recognize it, it is quite difficult to define what word play and playfulness with the content is. Even as part of serious creative work play activities are perceived by players as *having fun*. Humans tend to be playful in virtually all their dealings and decisions. It is there in the jokes. It is there in the less-serious attempts to break the monotony of more directed goals – such as the interruptions in the school work, socializing in discos or cocktail parties, and festivities and food rituals including the after-dinner speeches. Such activities prepare people of all ages by sharpening skills for virtually all aspects of existence, survival and emotional well-being. Playfulness encourages

learning from trial-and-error without a stigma of arbitrarily defined and judgmental criteria of success or failure.

Playfulness within and across the species line is common to all animals. The evolutionary rationale for play behavior in animals has been suggested as *training for the unexpected*. It applies to a whole range of activities that tend to rehearse social and physical functions involving muscular and motor to cognitive abilities. It is therefore not surprising that young animals tend to be more playful in order to develop flexible kinematic and emotional responses to unexpected events in which they experience shock or a sudden loss of control. In play one learns to exercise a level of control through deliberately relaxing the control and self-handicapping by putting oneself into disadvantage.

A general objective of play often appears to be to explore plausible solutions and learn how to regain control from failures for the next step. Not quite the same as in dreams, play behaviors include arrays of apparently purposeless and often irrelevant personal and social activities. A common feature of all play activities is switching between in-control and out-of-control actions that place demand on emotional states to encourage exploration of unpredictable (and therefore unknown) sensory stimuli. Improvisations for play include combining conventional moves with atypical ones in significant situations. For humans such self-induced mishaps include varying degrees of movements, gestures and language skills.

Exercises in survival skills in unexpected situations also include controlling emotional overreactions that lead to aimless panic and escalated conflicts. The immediate benefit from play may not be significant. Play is dropped under harsh conditions that require expenditure of time and energy for other purposes.

Game versus Play: *Adaptive Features of Play*:

Self-handicapping

Seeking and creating the unexpected situations and opportunities

Exploration of alternatives and unknown by trial and error under relatively safe environment

Mechanisms that suppress play also give the signs of negative emotions that suppress *having fun* (hunger, pain, anger, malaise, frustration, fear)

Recovery from stress again requires play or having fun for emotional replenishment

Rich cognitive content

Play activity increases after a change in the environment, weather, or habitat

Functional and social consequences: Ability to handle unexpected physical and emotional events, versatility to deal with misfortune and handicap (almost a universal feature).

Sequential variability of serious and fun components prepares for unexpected interruptions. Juveniles learn to deal with strangers, cheating, dominance and predation.

Characteristic of Games: The restricted environment of games is most commonly expressed as in *the only game in town*. On the other hand, playful exploration permits information gathering without such contingencies.

Outcome: definite versus not necessary

Limits: defined boundaries versus to be explored

Rules: explicit versus vaguely understood but fair

Purpose: immediate versus the past skills and experience

Less vigilance during play encourages cooperative (non-harmful) manner of social interactions with an understanding of signals to be reciprocated.

Eureka moments! It is a common experience that useful thoughts gel in unexpected moments.

-        Archimedes realized buoyancy relationship between volume and weight while he was taking bath.

-        Elias Howe got the idea of sewing machine in a dream. After years of impoverished drudgery spent on fruitless attempts to perfect a sewing mechanism, in the Mid 1840s Howe dreamt that he was being led out for execution. As he stood there trembling, Howe looked around - each of his guards toted a long spear; the broad leaf blade of every spear punctured by a hole. As he woke up he realized the hole in the sewing needle should be at the tip, not in the middle. The real nightmare for Howe was a protracted lawsuit against Merit Singer that eventually settled in Howe's favor.

Room for Doubt