

CHAPTER THREE

Reasoning Competency #2: Pattern Recognition

Pattern making is a foundational brain function for creating human memory. The relationships, models and methodologies we comprehend and record precondition our understanding of everything we subsequently experience – both positively or negatively.

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Introduction to Pattern Recognition

Pattern Recognition. A pattern can be broadly defined as an archetype, a schema, a model, a script, a symbol, an ideal worthy of respect, a representative sample of something, or a composite of traits or features characteristic of individuals. All biological life forms develop and exhibit their structural patterns; and the social development of humankind is inextricably anchored to the patterns recorded in our minds and our use of them as revealed in our behavior.

The cultural expectations, established methodologies, and accepted practices that form our human experience and interpersonal and organizational relationships are the artifacts of learned values, beliefs, knowledge, skills, and inherited potentials programmed into our computer-like minds by our previous learning and experience. Unlike the *system thinking competency* in the last chapter used by the learnership practitioner to accomplish *integrated thinking and synthesis*, the use of the *pattern recognition competency* in this chapter emphasizes the need for *differentiated thinking and analysis*. This focus enables the learnership practitioner to be both cognizant of the intent and potential impact of others' attitudes and behaviors, and to critically assess the contextual framing of social dialogue and situations. These are necessary skills in maintaining organizational dialogue and accomplishing situational learning. Pattern Recognition (PR) combines with Systems Thinking (ST) to ensure more effective Situational Learning (SL).

This chapter concentrates on helping learnership practitioners to understand and appreciate the human brain's amazing information processing, knowledge creating, and data storage capability – and what that means for personal effectiveness. Topics emphasized include understanding (1) how the brain functions as an information processing and learning system; (2) how brains are programmed (by patterns); (3) how brain programming leads to personal and group preferences (based on patterns); (4) how preferences lead to communication and behavioral styles (patterns again) that influence the context of social dialogue and relationships; (5) how we can further develop our cognitive skills and reasoning; (6) how we can learn-to-learn throughout our lives well into old age; and (7) how we can recognize and use this pattern knowledge for better management of our social systems and achievement of our personal goals. The section that follows presents an overview of human brain functionality through the eyes of three recognized experts – Elkhonon Goldberg, Matt Ridley, and Leslie Hart – each with their own unique research, experience, and perspective.

The first set of excerpts is from Elkhonon Goldberg, author of The Wisdom Paradox: How Your Mind Can Grow Stronger as Your Brain Grows Older (2005). The selections here provide insight on brain pattern making, language and cultural patterns in generic memory, competence and wisdom, and higher order executive functions in the brain's frontal lobes.

1. Language and Culture – Goldberg anchors the thesis of his book when he says that *language and culture are patterns* that are the basis for passing information and knowledge between succeeding generations: “What sets us apart as humans is the powerful capacity for transmitting the repertoire of these patterns from individual to individual and from generation to generation...Access to this knowledge automatically empowers the cognition of every member of human society by making it privy to society's cumulative, collective wisdom.” He continues by referring to language as an

important foundation that helps us categorize our experiences: “Language also shapes our cognition by imposing certain patterns on the world...By learning the use and meaning of words as children we acquire more than a communication tool. We also acquire taxonomy, a way of categorizing the virtual infinity of things, events, and impressions that *is* the world.” (pp.88-89)

Goldberg takes the opportunity to *challenge earlier modular theories* of brain functioning by stating that: “...contrary to some earlier assumptions, language does not sit neatly in one particular ‘language-dedicated’ part of the brain. Instead, various aspects of language are distributed throughout the neocortex by attaching themselves to different cortical regions, each in charge of representing certain aspects of physical reality.” (p.95) His “distributed across the neocortex theory” is also described as overlapping neural networks processing elsewhere in his book.

2. Information Processing and Learning – According to Goldberg, “The brain comes pre-wired for certain kinds of pattern recognition but not for others...the more complex cortical regions, the so-called associative cortex, have relatively little pre-wired knowledge...their processing power is accomplished by the ability to forge their own ‘software’ as required by their survival needs in an increasingly complex and unpredictable outside world...the pattern recognition capability of these most advanced regions of the cortex is called ‘emergent,’ because it truly emerges in the brain, which is very complex but also very open-minded.” (pp.104-105)

Noteworthy here is the proposed *self-organization capability of the brain* due to its being pre-wiring by *nature* in preparation for inputs from the external environment or *nurture*. Goldberg comments that: “...evolution carved out in the brain design a space for a tabula rasa, but one powered by an exquisite neural capacity for processing complexity of any kind and filling itself with any content.” (p.105) Filling with content is accomplished because of the neural network’s *attractor* capability, that is, “An attractor is a network, a group of closely connected neurons with a stable pattern of activity in the absence of direct stimulation from the outside...and this means the same attractor will be activated in its entirety, as a whole by activating any number of its various components.” (p.144) Neural attractors seek and integrate appropriate information into their networks.

3. Generic Versus Singular Memory – These two kinds of memory are both distributed and stored primarily in the hemispheres of the neocortex. Singular memory works like a direct data store in that experience and factual data are directly recorded for possible recall as needed. Generic memory, however, is memory for a whole class of things (e.g., processes) as opposed to memory for specific facts that have been learned or detailed experiences that have been experienced. Generic memory has semantic and procedural components that are considered by Goldberg as *patterns* – the principle subject of this chapter. He states that: “...both language and higher perception are based on generic memories ...language and higher perceptions are based on generic memories and are also resistant to the effects of normal aging.” (p.134) Generic memory resides in the frontal lobes of each hemisphere which have been termed the

brain's *executive function*. It is this area that contains the processing patterns we need to continue basic mental functioning even when other memory circuits are damaged or deteriorate due to aging. The executive function is resilient – resistant to aging and disease.

Goldberg continues: “Every new exposure to the same or similar thing in the environment – or for that matter, to the same or similar information conveyed through language or by some other means – will breathe new life into the reverberating loop supporting the formation of memory about it, and will increase the memory’s chance of making it into long-term storage...The more generic a pattern is and the vaster the set of experiences on whose overlap it emerged, the more robust and invulnerable to the effects of brain damage.” (p.123) He also comments that: “A typical pattern possesses a very interesting property. It contains information not only about the things you have already encountered, but also about the things you may encounter in the future.” (p.125) In other words, generic memories are resident in the neural networks they established, they are self-organizing and energizing, and they have persistence if their experience was either repetitive or very powerful.

4. Competence and Wisdom – Goldberg provides a useful categorization of the qualities of human development in which people with *talent* that become exemplars in their trade are said to possess *genius*. And, he describes people who acquire *competence* in understanding and predicting social process outcomes can, over time, acquire a vast storehouse such that *wisdom* is the outcome. His comment is that: “...we have already established that such pattern-recognition capacity comprises a very important element of wisdom, which implies that a person endowed with wisdom has the ability to recognize an unusually large number of patterns, each encompassing a whole set class of important situations...The arsenal of these generic memories accumulates with age...Also accumulated with age is the facility for intuitive decision-making...intuition is the condensation of vast prior analytic experience; it is analysis compressed and crystallized.” (pp.149-150) Competence leads to the development of intuition which leads ultimately to wisdom.

Goldberg’s emphasis on competence and wisdom have particular value as they provide a foundation for the trove of information being collected, processed, and synthesized in the writing of this book. The initial part of the learnership architecture is based on the five reasoning *competencies* (system thinking, pattern recognition, situational learning, knowledge management, and adaptive leadership), and the latter part of the architecture leverages these competences for more mature and effective management of our social systems (personal, organizational, community, and societal) – an analogy to the competence to wisdom transition he describes.

To summarize Goldberg’s contributions before moving on to other authors, we turn again to what he says about wisdom and competence: “To revert to the language of the brain, both wisdom and competence are attained through the accumulation of attractors allowing pattern recognition in important situations.” And further, “The gift of wisdom is a reward, not an entitlement. It has to be earned. And likewise you have to work for

your competence...Every human being accumulates a certain pattern-recognition capability in the course of his or her lifetime. But not every human being accumulates the patterns necessary for the solution of problems of genuine importance to a significant number of other people.” (p.155)

The second set of excerpts is from Matt Ridley, author of Nature Via Nurture (2003). The selections here support and extend Goldberg’s comments and provide further insight on the interdependence of nature and nurture in brain development, the role of genes in memory, and the influence of culture on human activities and development.

1. Nature Via Nurture – Ridley is an expert on the latest theories and discoveries in the field of evolution. He reports that the size of the neocortex determines potential brain power: “Gray matter consists of the bodies of neurons, and the new correlation implies that clever people may literally have more neurons, or more connections between neurons, than normal people.” He also says that human development is currently thought to be approximately 50% nature and 50% nurture. Regarding intelligence, he says: “Unlike personality, intelligence does seem to receive a strong influence from the family...IQ is approximately 50 percent ‘additively genetic’; 25 percent is influenced by the shared environment (twins studies); and 25 percent is influenced by environmental factors unique to the individual.” (p.90) Ridley’s comments are important in that he concurs with Goldman on the brain pre-wiring concept, and the belief that the pre-wiring is generic, thereby allowing the brain to await input from external stimuli to determine what will be recorded as knowledge and used to guide future action. Ridley states with confidence that: “By far the most important discovery of recent years in brain science is that *genes are at the mercy of actions as well a vice versa*...Nature versus nurture is dead. Long live nature via nurture.” (p.280)
2. Role of Genes – DNA is a nucleic acid that consists of pairs of chromosomes. The chromosomes carry genes which have genetic information based on their locations on the DNA. Genes are able to self-replicate; to turn on and off at predetermined intervals; and to create proteins that trigger brain memory and body activity consistent with specific characteristics of the particular DNA and chromosome. Ridley reports that: “...different parts of the brain are pre-designed for different jobs, something that could come about only through genes. Genes are often thought of as constraints on the adaptability of human behavior. The reverse is true. They do not constrain; they enable.” (p.64)

Ridley comments on the role of genes after they have effectively discharged their obligation to implement human growth saying that: “Genes – those implacable puppet masters of fate that are supposed to make the brain and leave it to get on with the job. But they do not; they also actually do the learning...these genes are at the mercy of our behavior, not the other way around...memory is ‘in the genes’ in the sense that it uses genes, not in the sense that you inherit memories. Nurture is affected by genes just as much as nature is.” (p.181) What we have here is a situation in which genes continue working at the behest of pre-wired chromosomal commands while simultaneously

responding to stimuli in our external environment helping us to learn and to lock-in memories of that learning in our brain's neural networks. We must assume that when our genes are helping us remember *patterns we have learned* (semantics and cultural artifacts), our frontal lobe generic memory is reinforced expanding our executive function repertoire. Ridley reinforces Goldberg.

3. Imprinting the Brain – Ridley credits Piaget with discovering the time dimension of brain learning. He reports that: “Piaget...insisted that just as children will not walk or talk until they are ‘ready,’ so the elements of what the world calls intelligence are not merely absorbed from the environment; they appear when the developing brain is ready to learn them. Piaget saw cognitive development neither as learning nor as maturation, but as a combination of the two, as sort of active engagement of the developing mind with the world.” (p.126) Furthermore, Ridley notes that it was Konrad Lorenz who “...realized that there was a narrow gap of time during which this imprinting could occur...formed the concept of the critical period – the window during which environment acts irreversibly upon the development of behavior...had discovered how the external environment shapes behavior just as much as the natural drive does.” (pp.152-153) These findings confirmed earlier inclinations that chromosomes and their genes contained sequential timing characteristics that opened up specific learning opportunities for a limited period before closing the mental door and moving on to other developmental factors. The importance here is that our early childhood imprinting period (followed by an adolescent socialization period) contributes a tremendous amount of pattern development which for the rest of our lives will influence our *perspective and preferences*.

Again, Ridley's commentary aligns well with Goldberg's self-organizing capability of the brain in which attractor networks are prepared to be reinforced by external stimuli that are consistent with their current repertoire of data. To the learnership practitioner, this presents a challenge: how to countermand the preprogrammed “knowledge,” biases, and potentially erroneous thinking of others when change is clearly required.

4. Brain and Culture – Following up on the role of genes and the reality of early life imprinting from above, Ridley reemphasizes the criticality of learning as a distinct result of external cultural imprinting: “And the only way that evolution can transmit such information from the past to the design of the mind in the present is via the genes. That is what genes are: parts of an information system that collect facts about the world in the past and incorporates them into good design for the future through natural selection...learning itself is an instinct.” (p.194-195) Furthermore, speaking about all the knowledge, artifacts and property acquired by people, he says: “They got all these things through culture, through their ability to accumulate ideas and inventions, generation by generation, transmit them to others, and thereby pool the cognitive resources of many individuals alive and dead.” (p.209) And finally, Ridley declares: “To imitate, to manipulate, and to speak are three things that human beings are particularly good at. They are not just central to culture: they are culture.” (p.220)

At this point, the reinforcing spiral of learning creating culture and culture influencing learning appears to establish, over time, impenetrable perspectives not amenable to new learning and change. Multiply this by hundreds, if not thousands, of learning-culture spirals as evidenced by the multitude of national and international languages, religions, nation-states and the wide range of ethnic, gender and age differences that have impact on social systems development and management and we can begin to understand why managing any type of personal, organizational, and community change is very difficult. Our learnership practitioner will need significant knowledge, skill and ability to succeed in this environment!

The third set of excerpts is from Leslie Hart, author of Human Brain and Human Learning (1983). The selections here add to and build on Goldberg's and Ridley's contributions to this book's themes. The particular areas of emphasis are pattern detection and recognition, living by programs, emotional downshifting, and learning through brain compatibility.

1. Pattern Detection and Recognition – According to Hart, real learning needs to take into account the natural forces and capabilities of the human environment. He presents his Proster Theory which argues that the process of learning is the extraction from confusion of meaningful patterns. His propositions are that the brain (1) is a pattern detection apparatus, (2) detects both features and relationships, and employs the use of clues and categorization, (3) uses negative clues as control factors, (4) uses innate probabilistic capabilities, (5) applies prior experience (preconditioning) which sets the stage for performance, and (6) memorizes patterns which can be revised to fit new experiences. (p.67)

Hart reinforces the idea that the brain works on a *probabilistic* basis. It compares incoming stimuli from its environment with the memories stored in its neural networks, factors in any disconfirming data, and makes a judgment on the appropriate response. He states that: "In practice our pattern-detecting ability depends on clues from vision, touch, or other senses, on the behavior and relationships, on the situation. In short, the ability depends heavily on what we bring to the act of pattern detection and recognition. The more experience tells us what we are likely to be looking at, or dealing with, the less detailed, feature-type of information we need to jump to a probably correct conclusion." (p.64) Hart attributes to Aldous Huxley: "What emerges most strikingly from recent scientific developments is that perception is not a passive reception of material from the outside world; it is an active process of selection and imposing of patterns." (p.61-62)

Significance of this to the learnership practitioner is two-fold: First, the positive – there is an ongoing need for subject matter experts to organize information, create processes, and establish methodologies so others can learn and apply improved approaches for achieving their objectives. This is *pattern making*, and by clarifying purpose, reducing uncertainty, sequencing activities, and increasing confidence of those who follow better outcomes can be attained. Second, the negative – pattern making has long been with us and has risen to an art form wherever there is a bureaucracy. Bureaucracies have so

many locked-in policies and procedures in attempting to become highly efficient (pattern conformance) that they can no longer be adaptive and effective in a fast changing, integrated world. These two activities are in constant tension as those satisfied with the present culture, thinking processes, or methodologies resist suggestions by those who see change as essential for a better future.

2. Living by Programs – Hart introduces Proster Theory, which is a neologism from the compression of the words *program structure*. A Proster is a notional concept of how the brain is organized for storing and selecting programs. Hart reports that: “The key is the realization that we act very largely by *programs*...Clearly one of the reasons for our huge brain is that as humans we need and use a great number of programs to carry on our complex activities – thousands of times as many as the most intelligent of other animals.” He continues saying that: “Present knowledge makes clear that programs can be acquired two distinct ways: by being transmitted with the genes, or by being learned after birth...”. (pp.82-83) Hart obviously agrees with Goldberg and Ridley on the brain’s dynamic “give and take” with its external environment, but he does not mention the role of genes locking-in external information as part of the nurturing process. He does, however, envision the brain’s purposeful selection of a particular program from a repertoire of programs in an ongoing “conversation” with the external environment, and states: “To carry on activities, one must constantly select a program from those that are stored in the brain, and implement it – put it to use...Each time, the program in use has to be switched off, and another selected and switched on. The brain does this so smoothly that we ordinarily are not aware of the switches being thrown.” (p.83)

Hart comments on the difficulties in teaching/learning situations when there is the need to align the programs to be used. “He presents his evaluate, select, and implement cycle and indicates the respective challenges:

- a. Evaluate – Unless the learner can reasonably accurately evaluate the need or problem the situation presents...the cycle goes astray at the outset. The student simply does not know *what* to do.
- b. Select – Individuals can only use those programs they already possess. However much one may be coerced or urged, or motivated or rewarded there is no way to perform the program unless it has already been stored by that individual. He or she does not know *how* to do it.
- c. Implement – A student cannot implement a program unless given the chance to do so.” (p.84)

What is particularly noteworthy to the learnership practitioner in Hart’s commentary is the need to establish common ground among the programs in use. The transfer of information and knowledge cannot be efficiently or effectively communicated when the sender’s perception and or perspective is very different than that of the receiver. The following chapter on “Situational Learning” addresses this concern and poses solutions.

3. Emotional Downshifting – Hart reports that: “The quality of brain – which to a large extent means the number of neurons – determines the degree to which patterns can be detected and discriminated” and determines the scope of program building.” (p.103) He also comments that a major consideration in program building and learning is the quality of the learning environment. Given a triune brain structure consisting of a reptilian core (survival skills, fight or flight), within a limbic mid-brain (deeply held emotions and beliefs), within an outer neocortex (thinking, substantive memory, frontal lobe executive functions); the challenge is to exercise the memory and learning of the neocortex without unnecessarily creating a sense of danger or fear that disrupts the learning process. The presence of threat is detrimental to effective instruction/learning. Threat causes a sense of danger, the neocortex begins to shut down (down-shifting), and the limbic and reptilian brains react negatively. The effect is one of shock and interference with the ability to speak. Removal of the threat allows neocortex dominance (up-shifting) to occur and learning to continue. The learnership practitioner will need to be astute in evaluating whether the subject matter (content), reasoning framework (context), and tone of interpersonal communications is factual, open, and supportive of all participants.

4. Learning through Brain Compatibility – Hart comments on the current state of educational development and learning that courses are arranged for academic convenience, not on how learning occurs in the real world; and intimates that fragmentation introduced by courses (fields of study) focus on prescribed basic content but mostly fail to integrate well with material in other disciplines. He says that: “...the emphasis on patterns tends to unify, and to promote a natural transfer of learning.” (p.136) Hart calls for learning in an open-ended, non time-constrained environment with an emphasis on mastery (mostly determined by the students), and with *overarching grand ideas* that provide a large context for deliberation and critical thinking. The ability of the students to have choice and sense of control, manipulate relevant materials, use language and written materials, obtain feedback, and link to grand ideas are all helpful for effective learning and development. Learnership practitioners are likely to agree that much of this perspective applies within their own adult lives and social systems.

Pattern Recognition Complexity

What emerges most strikingly from recent scientific developments is that perception is not a passive reception of material from the outside world; it is an active process of selection and imposing of patterns.

Aldous Huxley

University of the Mind. A major example of how life and work has been systematically divided and organized into units of knowledge and performance is illustrated in Figure 3-1. Shown is the approach used by The George Washington University, Institute for Knowledge and Innovation,

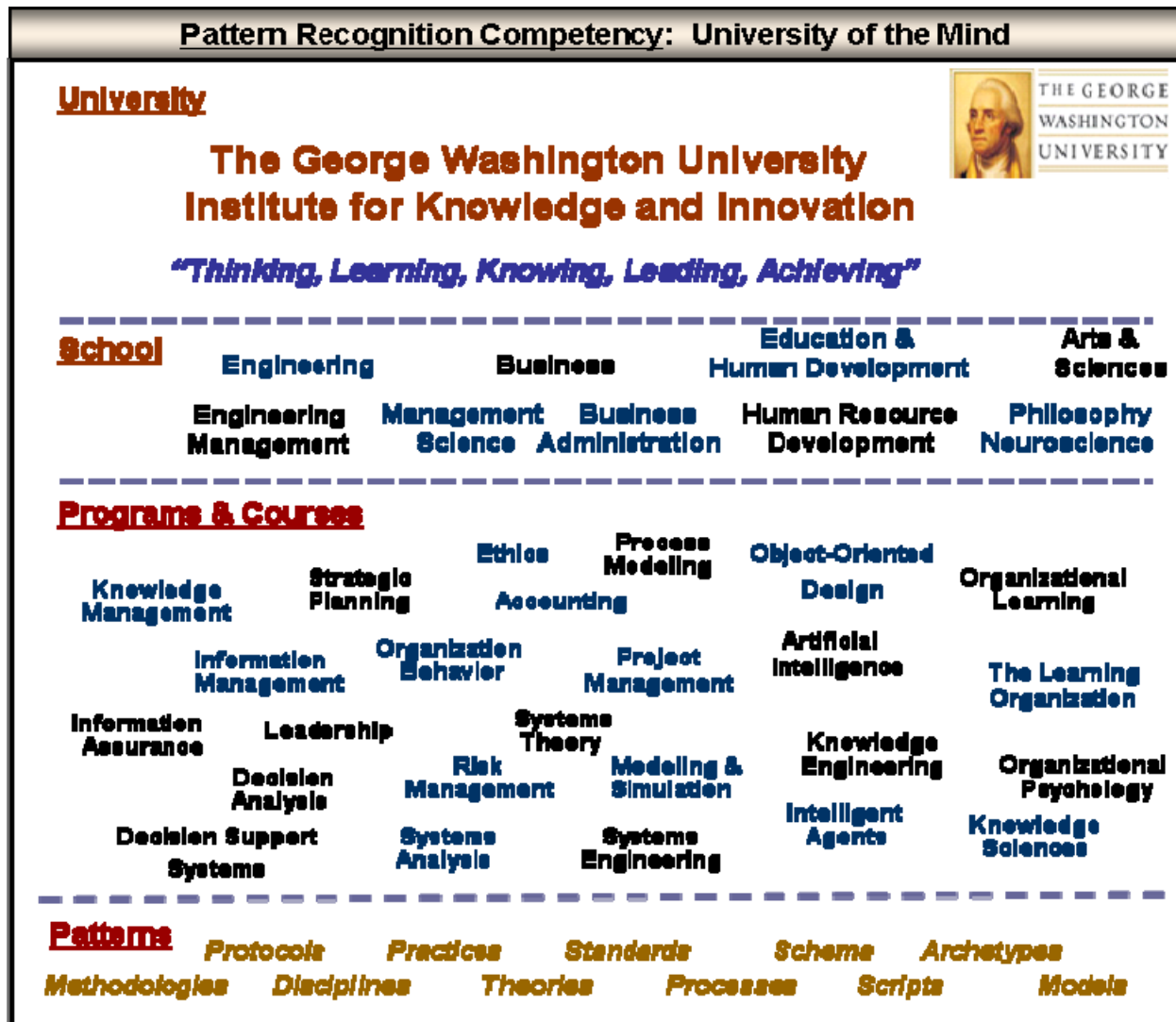


Figure 3-1

to depict the various schools, departments, and programs that have a logical connection to the University’s Knowledge Management Program. Two aspects of this taxonomy are important: (1) knowledge management practices and technologies are necessarily broad in scope and easily cross traditional educational and organizational boundaries; and (2) each of the departments and programs have their respective *knowledge and process patterns* by which they are distinguishable (e.g., Information Management has IT Architecture; Systems Engineering has SEI Methods and Practices; Business Administration has Leadership Development; Human Resources has Human Capital Development). The breadth of the university’s educational program inspires this author to propose the concept of *University of the Mind* – an artifact that describes the similarity between a university and the human mind wherein their modular construct, breadth of knowledge, and responsibility to accommodate activities requiring both integration and differentiation. This perspective poses the challenge: How can we select, record, modify, apply, and share patterns of belief and information among individuals and social systems when and where they are needed?

Focusing on patterns of belief and information as a framework for social inquiry provides the analysis and understanding of individual preferences and mindsets. The *pattern recognition competency* focuses on our ability to recognize the preprogrammed aspects of ourselves and others, and on our need to better manage our reasoning based on why and how we think, learn, know, lead, and pursue objectives in our societal endeavors.

The development and application of these two fundamental competencies (pattern recognition in conjunction with system thinking), permits us to stretch the mental models that govern our thought and behavior in both hierarchical and lateral directions. This enables us to comprehend our environment and experiences more fully and expand our range of personal options and social action. Additional insight on this challenge is offered in the following paradox of integration and differentiation.

Paradox of Integration and Differentiation. Much of life comes at us with speed and complexity that defies our desire for orderly thinking and decision-making. Most of us find ourselves being pressured to live an *integrated* lifestyle in which a myriad of diverse objectives, issues, people, responsibilities, and personal preferences clamor for our daily attention – simultaneously! The societal subsystems (personal, organizational, community) that comprise our societal experience constantly compete for more of our time, resources and involvement. Stress and ill-health is the occasional result.

The other part of our lives demands that we narrow our attention and focus on the specific needs of the people and organizations, tasks and relationships we need to support or influence. We spend much of our time and life trying to simplify things and to make them understandable and predictable. Our language, culture, and educational systems are designed to *differentiate* our skills and knowledge. This places boundaries on our activities thereby making our tasks and functions more manageable. This also enables us to limit our attention to prescribed strategies for developing expertise and achieving efficiency.

In reality, we spend our lives cycling between the larger, broader, more inclusive system thinking activities discussed in the last chapter; and the narrowly focused, more deeply analytical issues and responsibilities that require our immediate attention. We are required to differentiate and then to integrate, to specialize and then to generalize, to serial-process and then to parallel-process, and to continually accept diverse factors impacting the achievement of our objectives.

The *university of the mind* archetype connotes a repository of patterns, an architecture of integrated themes and differentiated subjects, the use of symbiotic system thinking and pattern recognition, and a need to maintain an *overarching grand idea* that provides a meta-cognitive architecture for improving thinking, learning, knowing, leading, and pursuing achievement. This is the mindset of the learnership practitioner who relishes lifelong learning, adaptive leadership, and the pursuit of goals yet to be discovered.

Social Framing and Analysis. Framing is the term used to describe how people attempt to organize their social experiences and to influence others. Framing is mainly about how we strive to create patterns of communication and context interpretation that leaves preferred impressions,

provides us with desired social leverage, and creates movement in the directions we favor. This effort involves designing the context or patterns within which a conversation or product/service discussion will take place so that subject matter content itself is perceived within the frame of interest of the initiator. The fields of marketing and advertising where sales and revenue are dominant are the most prevalent examples of communications framing; however, the purpose here is to focus on gaining better understanding of interpersonal communications on the personal level and in social relations.

In his seminal work entitled Frame Analysis (1974), Erving Goffman's definition is that frame analysis is the analysis of situations in terms of the organization of the interpersonal experience that was observed. That is, an observer using frame analysis is able to discern the "play" between two or more people in communication, and then organize the data collected into a commentary on individual intent and results. It is important to note that all of the involved parties could be attempting to "frame the dialogue" as might be expected in a situation of negotiation.

When viewed from a theatrical perspective, the phrase "staged production" is apropos in that the actors are following a script that leads to the formulation of specified assumptions and conclusions concerning the main theme or storyline. Goffman cites the Marilyn Chambers example: "In 1973 Marilyn Chambers, an uncontroversial personality was picked to be the mother figure on Ivory Snow laundry powder boxes – until the disclosure of her stardom in hard-core pornography films was learned. (p.277) Purposeful framing and production staging did not achieve the desired result when the obvious contradictions became known.

According to Berger and Luckmann (The Social Construction of Reality, 1967), we are all challenged to obtain knowledge and to "construct a reality" that rationalizes our preconceived experiences, personal objectives, educational learning, family cultures, and/or adopted biases. For a variety of reasons, many of us project a personality through language, body motion, and speech that is purposefully or inadvertently inconsistent with our self-interest or intent. At the duplicitous extreme, our psycho-social outlook could be that we could not care less about our impact on others as long as our personal objectives are achieved. Examples include: (1) we claim to be openly seeking information and input even while we are actually rejecting others and their suggestions, and (2) we have little knowledge or feeling about others or a situation while actually scheming to convince them of our commitment and empathy to their cause. In either case, the frames we project have little authenticity and cannot be the basis for long-term development and success.

These behaviors are part of human nature and provide a useful backdrop for movies and stage plays. Many times humor springs from these contradictions, while at other times the results are tragic. The point for our purposes is that dispassionate observers operating from an objective distance are better able to collect information and perform frame analysis when they temporarily step outside the immediate situation. In the previous chapter, this activity was referred to as "exbody objectivity."

Finally, the question that may now be asked is: How should we deal with others' projected frames of reference when they are recognized? In approach one, a defensive posture may be employed which is to comment that the suggested (context setting) frame is an attempt to deflect

attention away from the subject (substantive content) at hand, and to point out that the irrelevant and inaccurate frame being posed is essentially a red herring distraction. In approach two, a developmental perspective may be the best technique because the situation is one in which the initially established frame/context is, in fact, erroneous and a new mind-frame should be considered. In the latter case, an open-minded search for pattern alignment would be most constructive.

The learning here is that open and authentic dialogue that establishes common ground for collaborative problem-solving reduces misunderstanding. The discussion of issue content, within an agreed context, using open-minded collaboration is the preferred approach for achieving greater consensus and results. Learnership practitioners attempt to establish such conditions.

Mental Models. In his book The Fifth Discipline (1990), Peter Senge lists the development and use of “mental models” as one of his five major learning organization disciplines. He states that: “Mental models are deeply ingrained assumptions, generalizations, or even pictures or images that influence how we understand the world and how we take action. Very often, we are not consciously aware of our mental models or the effects they have on our behavior.” (p.8) Senge’s mental model description, and cautionary observation of the potential impact of unknowingly applying mental models to social situations, aligns well with the pattern recognition discussion in this section.

Senge notes that: “The discipline of working with mental models starts with turning the mirror inward; learning to unearth our internal pictures of the world, to bring them to the surface and hold them rigorously to scrutiny. It also includes the ability to carry on ‘learningful’ conversations that balance inquiry and advocacy, where people expose their own thinking effectively and make that thinking open to the influence of others.” (pp.8-9) This point is significant in that it challenges each of us to develop the courage to expose our deeper thinking and feelings to others in an effort to learn, to better understand, and to find common ground upon which we can agree so that issues and problems may be resolved. The reality in today’s fast paced, dynamic environment is that few of us are willing to afford that level of commitment unless the issue or problem is very serious – and then only with a select few family and friends.

Personal Preferences and Behavior

*Our attitude is not determined by circumstances, but by how we respond to circumstances
Our minds determine our attitude. We can respond positively or negatively. It’s how we
react to an event, not the events themselves that determines our attitude.*

Wynn Davis

A desirable outcome from understanding human brain learning and programming, and the fact that language, culture and experience has created such disparities among us; is developing a capability to apply our pattern recognition knowledge to individuals, organizations and communities with whom we live and work. Differences in our perception, perspectives and preferences affect our ability to live and work together.

This section introduces a selection of theoretical constructs developed over the last century that attempt to account for a wide range of psychological and behavioral variables observable in both individuals and social groups. Numerous studies have been conducted and books written that attempt to explain the uniqueness of each construct. Additionally, each construct has its own advocates and experts that suggest how practical use may be made from their respective concepts. Little has been done to overlay the theories and to explain areas of consistency and difference. In fact, when this is attempted strengths and weaknesses and the lack of 100 percent alignment becomes evident. Greater in-depth research is clearly indicated for those inclined to achieve definitive knowledge of the relationships. And yet, having an 80 percent, symbiotic understanding of what has already been discovered is information worth knowing. Our practical lives are full of patterns and concepts that are only 80 percent accurate requiring that we balance the risks of error and use our judgment to learn what we can and then move forward to the next learning opportunity.

The explanations that follow provide selected fundamentals on a number of personality studies and the information that has resulted from the use and interpretation of their respective personality instruments (surveys). The figures used below have been developed as conceptual reference models in an effort to construct a “notional” or general relationship among the psycho-social concepts so that an overarching tool might become available for our use in discussing our preferences and tendencies as we try to communicate and live a constructive social existence. Figure 3-2, Pattern Recognition Competency: Psychological Preferences is the symbiotic model for relating brain dominance, personality types, learning styles, and cultural styles.

[Author’s Note: Readers will see that starting with Figure 3-2 reasoning competency abbreviations (ST, PR, SL, KM and AL) are shown in illustrations within an octagonal-shaped figure. Figure 3-2 begins with System Thinking already appended to allow for the preceding discussion in Chapter Two.]

Brain Dominance. The Whole Brain Business Book (1996) by Ned Herrmann links human preferences and capabilities to individual styles of thinking and learning. Herrmann uses brain physiology as a metaphor for illustrating four unique modes of thinking which, in turn, determine our individual personalities, acquired preferences and skills, and ultimately our behaviors. According to Herrmann, the adult personality represents the result of numerous choices and preferences that have synthesized to create the interests, skills, strengths, and limitations found in each person. A *Universe of thinking styles* exists within which each person has at least one, probably two, dominant capabilities. In group work and in business, it is theorized that a "Whole Brain" capability contributed by numerous team members is the best approach to encourage innovation and for problem solving.

In Figure 3-2 the brain is the conceptual illustration around which everything else revolves. The illustration notionally accommodates the left and right brain hemispheres – each with frontal lobe executive functions. It also shows that there is a new mammalian neocortex (cerebral outer brain) and an older mammalian (limbic mid-brain) both of which are split between the left and right hemispheres. Using a quadrant perspective, the brain can be said to operate in terms of its

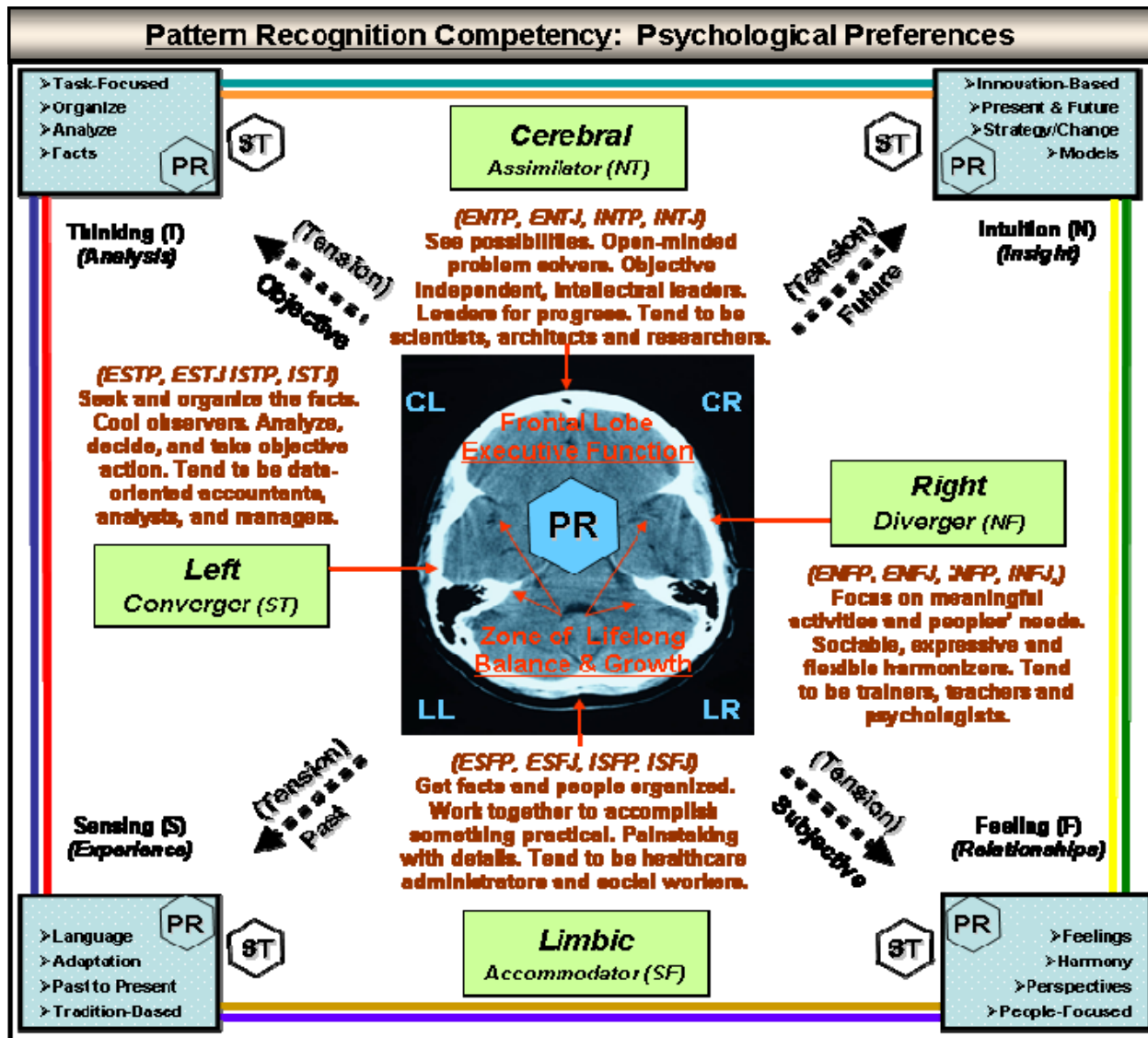


Figure 3-2

Cerebral Left (CL), Cerebral Right (CR), Limbic Left (LL), and Limbic Right (LR) pre-wired functionality, information storage, and personal preferences as indicated by the labels provided. Herrmann's *whole brain* concept is that all these regions have valuable contributions to make and should be developed and used more effectively. Ideally, a sense of balance would be achieved wherein the right thinking, capabilities and knowledge would be applied at the right place, at the right time, as needed.

In the figure, the size of the cerebral brain is the distinguishing factor in permitting human information storage, thought, knowledge and development. And, the frontal lobe of the cerebral brain is the primary area for pattern development and recognition. The *Cerebral Left (CL) brain* area is pre-wired to record elements of culture and experience that enable the recordation and use of task-focused knowledge and skill that emphasize the analysis and organization of facts relevant to a situation or relationship. Moving our focus to the right side of the brain, there is the

Cerebral Right (CR) brain area which is pre-wired to record and use information in the form of models and pictures to envision innovations, future possibilities, and strategies for change.

In reference to the limbic mid-brain – the area that records and attempts to sustain our values and relationships – the *Limbic Left (LL) brain* area is pre-wired for language, symbols and traditions developed in the past and thought to be equally applicable to the present. Adaptation to new concepts and experiences is slow and rapid change is actively resisted. For the *Limbic Right (LR) brain* area, pre-wiring is designed to record information for building harmony, encouraging people-focused relationships, respecting feelings and developing perspectives that put people first in communications and action.

An important point to recognize at this juncture is the natural brain tension that occurs between the diametrically opposite areas of the brain. The well organized, task-focused CL brain area does not relish dealing with the people-focused, sometimes undisciplined LR brain area and its needs. Similarly, the tradition-based (LL) brain area is very resistant to the future and change oriented (CR) brain area due to its threat to limbic stability. Herrmann's whole brain concept recognizes values and builds on these differences and turns them into valuable insights for personal and organization development.

Whole Brain Theory postulates that everyone has a dominant brain preference, that is, left versus right and cerebral versus limbic which indicates that one, and probably two, quadrants are of strongest influence. To enable better thinking and communications in relationships and teamwork it is useful to have more rather than fewer people involved using their preferences and strengths. More useful information is acquired, considered and used in decision-making thereby providing a better result. A typical collaborative process might proceed as follows: A situation arises in which some aspect of an organization's tradition has come to everyone's attention because proposals are being made to stop a planned activity that occurs the same time every year. Tension between those with strong LL brain tendencies and new team members with CR interests requires management attention. In a properly functioning organization, some time would be spent gathering relevant information (a CL activity) and relevant workforce information (a LR activity). These two areas also represent an opportunity for tension prior to proceeding into the expected cycles of discussion and decision-making. A whole brain solution should have involved more of the useful information and perspectives to make the final solution acceptable to all those involved due to the decision's inherent accuracy and fairness.

Learning Styles. In his book Experiential Learning: Experience as the Source of Learning and Development (1983), David A. Kolb created a Learning Style Inventory (LSI) that proposes that individuals with different kinds of personality styles prefer different mental approaches for engaging their minds and the world around them. Some learning abilities are emphasized over others. Four distinct approaches to learning are seen in childhood development: *accommodator behavior* leads to Concrete Experience (CE - "feeling"); *diverger behavior* leads to Reflective Observation (RO - "watching"); *assimilator behavior* leads to Abstract Conceptualization (AC - "thinking"); and *converger behavior* leads to Active Experimentation (AE - "doing"). This learning process yields four distinct "styles" of which two approaches are preferred by individuals. Figure 3-3 illustrates the childhood learning process and adults choose the one or two favorites for later life use.

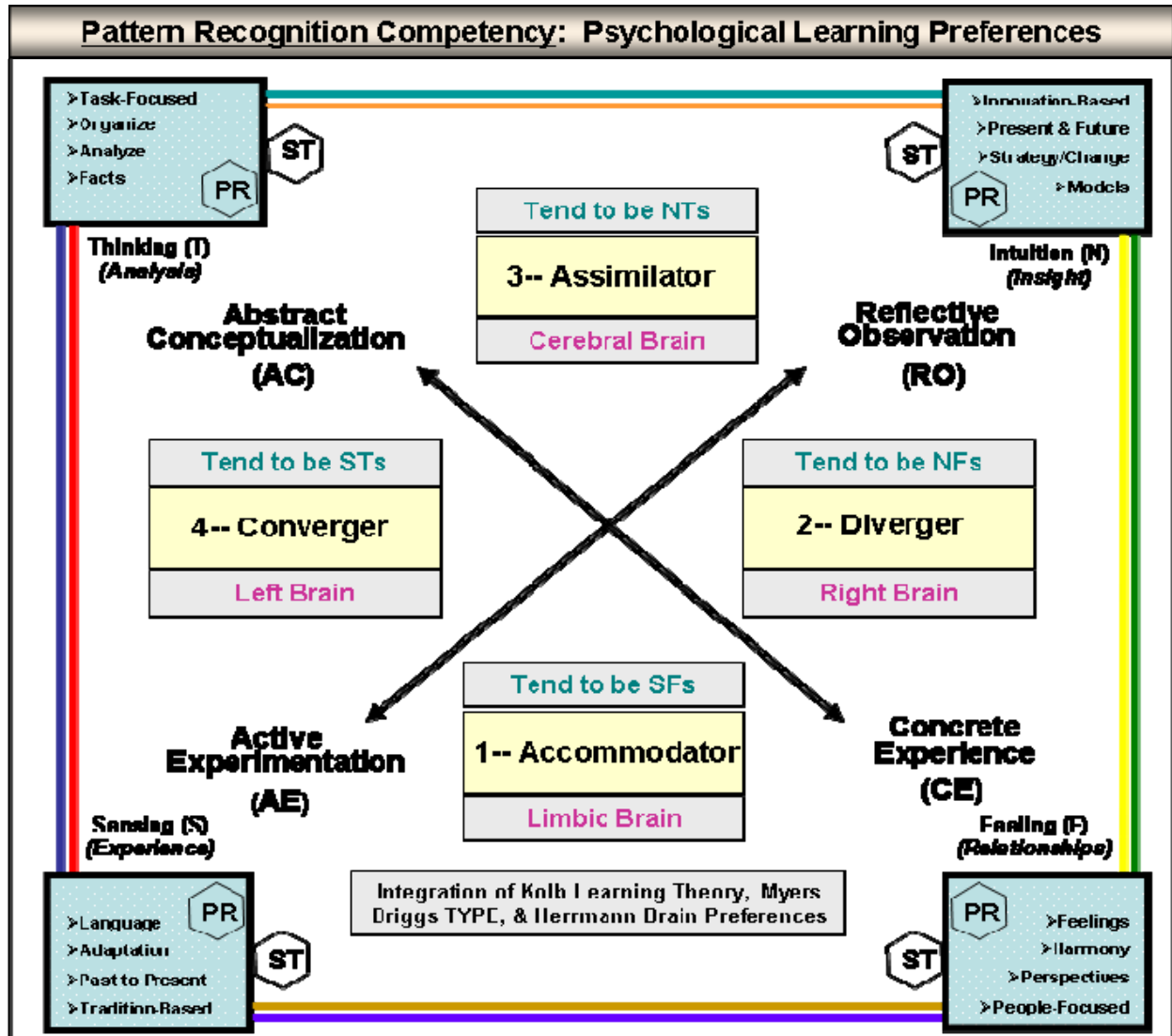


Figure 3-3

Accommodators (CE-AE) – Learners who are accommodators are opposite of the assimilators, and their strength lies in doing things and getting involved in new experiences. They are likely to be more of a risk taker than the others and tend to excel in situations requiring adaptation to immediate circumstances. They like to discard a "theory" or "plan" and tend to be impatient and "pushy." They like action oriented jobs like sales.

Divergers (CE-RO) – Divergers are opposite of convergers. Their strength lies in their imaginative capabilities and their ability to view things from multiple aspects. They are good at "brainstorming, and in dealing with people. They tend to be imaginative and emotional. They have broad cultural interests and specialize in the arts. They may have backgrounds in humanities and liberal arts and may work in personnel occupations.

Assimilators (AC-RO) – Assimilators are opposite of accommodators. Their strength lies in the ability to create theoretical models and the use of inductive logic to synthesize disparate observations. They are less interested in people and more focused on abstract concepts – seven to the exclusion of a practical application of those concepts. Their interest is more in the basic sciences rather than applied sciences and is likely to be in the R&D and planning occupations.

Convergers (AE-AC) – Convergers are opposite of divergers. Their strength lies in the practical application of ideas. They excel in conventional intelligence tests in which there is one preferred answer and the use of hypothetical-deductive reasoning is paramount. They prefer to deal with things rather than people, are relatively unemotional, have rather narrow technical interests, and like the physical sciences. Their typical occupation is engineering.

Our learning styles affect how well we learn. What is useful in understanding learning styles is that when others' preferences are known the trainer, manager or colleague has a choice of methods for helping others learn either in classrooms or in organizational settings. Kolb's LSI has been shown to be useful in gaining appreciation of diversity and interpersonal differences, gaining insight on how to help others learn from experience, and in helping groups better understand collaboration and using strengths of participants. Lastly, these styles have a general correlation with the brain dominance preferences illustrated in [Figure 3-2](#) which means that quality of learning preferences are consistent with brain studies, but probably not 100 percent aligned with Herrmann's conclusions and models.

Personality Type. Gifts Differing (1980) by Isabel Briggs Myers is the seminal work on human personality. It presents a classification of personality types through study of personal mental preferences based on Jung's studies of human similarities and differences. The Myers Briggs Type Indicator (MBTI) instrument is used to gain insight into how people prefer to use their minds, especially the way they perceive and make judgments. "*Perceiving* is here understood to include the processes of becoming aware of things, people, occurrences, and ideas. *Judging* includes the processes of coming to conclusions about what has been perceived. Together, perception and judgment, which make up a large portion of people's total mental activity, govern much of their outer behavior, because perception – by definition – determines what people see in a situation and their judgment determines what they decide to do about it." (p.1)

According to Myers (Jung), mankind uses two fundamental *types of perception* that are sharply contrasting. One means of perception is our use of *sensing* which relates to our becoming aware of things and people through our five senses. When we concentrate on sensing we tend to be unaware of other stimuli and have little attention left for other thoughts. Another means of perception is our use of *intuition* which has to do with our ability to gain insights from "hunches" or "trends" that go beyond the clearly recognized facts of a situation or relationship.

Myers (Jung) also proposed that we have two distinct and sharply contrasting ways for coming to conclusions. One way is through *thinking*, which implies the objective, logical processing of information. The other way is by using *feeling* which concerns the subjective, personal side of human relationships. Jung suggested that whichever of the two perception process, and the two conclusion processes we chose, we would tend to stay with those choices over a wide range of

mental and behavioral activities – and that these would become distinguishable patterns of behavior. The combinations of perception and judgment: Sensing plus Thinking (ST), Sensing plus Feeling (SF), Intuition plus Feeling (NF), and Intuition plus Thinking (NT) produces our personalities as “characterized by the interests, values, needs, habits of mind, and surface traits that naturally result from the combination.” (p.4)

In addition to Jung’s four fundamental functions, Myers explains Jung’s theory on four more functions or preferences: introversion and extroversion, judgment and perception. Jung said that people had different *life orientations*; more interested in the external world such as people and things (*extraverts*) or on the internal world of concepts and ideas (*introverts*). Extroverts tend to do their best work out in their external environment, while introverts do their best work by concentrating their perception and judgment on concepts and ideas. Both are needed for high levels of societal functioning and accomplishment.

Lastly, Myers explains Jung’s judgment-perceiving preference as a “choice between the perceptive attitude and the judging attitude as a way of life, a method for dealing with the world around us...people shift back and forth between the perceptive and judging attitudes, sometimes quite abruptly.” (p.8) Using perception we are open to additional and new information, but when using judgment we seek closure and conclusion.

Use of the MBTI allows individuals to select their personality type by choosing among Jung’s four sets of functions. The result is that all of us fit into at least one of the sixteen types available – and often we can see ourselves partially in two or more of the other types. For purposes of this book, the MBTI concept has been included in [Figure 3-2](#) in the following manner: First, Jung’s four primary functions are aligned with the brain dominance model such that the *cerebral thinking* (value analysis) and *limbic feeling* (value relationships) preferences are at opposite corners. Similarly, the *cerebral intuition* (value insight) and *limbic sensing* (value experience) preferences are at opposite corners. This alignment is coherent with what has already been displayed in that NT types are associated with cerebral mental functioning, SF types are associated with limbic mid-brain functioning, ST types are associated with left brain functioning, and NF types are associated with right brain functioning. The symbiotic relation among brain dominance, Myers-Briggs Type, and Kolb’s learning theories are beginning to be seen. Specifically, the four sets of MBTI types can now be distinguished and summarized:

1. **NT** (*ENTP, ENTJ, INTP, INTJ*) – NTs see possibilities. They are open-minded problem solvers. They are objective, independent, intellectual leaders. They are leaders focused on progress. Many scientists, architects and researchers are NTs.
2. **SF** (*ESFP, ESFJ, ISFP, ISFJ*) – SFs get facts and people organized. They work together to accomplish something practical. They are painstaking with details. Many healthcare administrators and social workers tend to be SFs.
3. **ST** (*ESTP, ESTJ, ISTP, ISTJ*) – STs seek and organize the facts. They are cool observers. They analyze, decide, and take objective action. Many data-oriented people, accountants, analysts, and managers tend to be STs.

4. **NF** (*ENFP, ENFJ, INFP, INFJ*) – NFs focus on meaningful activities and peoples' needs. They are sociable, expressive and flexible harmonizers. Many trainers, teachers and psychologists are NFs.

Once again, a new theoretical concept is introduced and compared with our Figure 3-2 model under construction. An 80 percent correlation and symbiotic relationship is easily observed, but perfection is not assured. Each noted expert (Herrmann, Kolb, Myers) established their respective theories with knowledge of Jung's work and that of many other researchers. However, each also constructed their own data collection plan, analyzed their findings, and published their conclusions – most often for slightly different purposes and audiences. Notwithstanding their efforts, our objective is to determine general correlations that can serve as the basis for higher level pattern recognition in human memory, thinking and behavior.

What should be observable at this point is that we and others have our preferred manner of thinking, learning and behaving – and those patterns can be discerned by those of us empowered with knowledge of the physiological and psychological basis for the mental models we all display through our language and behavior. As learnership practitioners we are encouraged to raise our personal antennas and be alert for others' preferences, styles and needs so we can become more efficient and effective in working with them. We should learn to recognize that some of those around us driven by their left brain desire for facts and organization will sometimes be in conflict with right brain people seeking new insights and better interpersonal relationships. The cerebral thinkers with their theories and complex models will certainly find themselves challenged when working with those whose limbic value system is threatened by perceived counterculture schemes. And, if we find ourselves in the position to plan and lead an organizational change initiative we should not be surprised at just how hard that turns out to be!

[Author's Note: For those readers interested in more information on psychological preferences or to do a self-assessment using the Myers-Briggs Type Indicator and/or the Herrmann Brain Dominance Indicator, the following web sites may be helpful:

<http://www.hbdi.com>; <http://www.humanmetrics.com>; <http://www.personalitypathways.com>; and <http://www.spiraldynamics.org>.]

Introduction to Spiral Dynamics:

Spiral Dynamics presents a new framework for understanding the dynamic forces at work in human affairs – business, personal lives, education, and even geopolitics.
Ronnie Lessem

Cultural Styles/Spiral Dynamics. Before leaving the personal preferences and behavior subject area, we turn our attention to the contemporary work being done in the field of Spiral Dynamics. We are interested to see what broad-based conclusions might apply to our psychological patterns effort. Authors Beck and Cowan, Spiral Dynamics: Mastering Values, Leadership, and Change (2006), report on, and further develop, the foundational work of psychologist Clare Graves. In introducing the work of Beck and Cowan, Ronnie Lessem comments that: "...a Meme reflects a worldview, a valuing system, a level of psychological existence, a belief structure, an organizing principle, a way of thinking or a mode of adjustment." Lessem also notes that "...a Meme is a

discrete structure of thinking...[that it] can brighten or dim as the *Life Conditions* (consisting of historic *Times*, geographic *Place*, existential *Problems*, and social *Circumstances*) change.” (pp.4-5)

[Author’s Note: This description is nearly identical to the dictionary definition of culture in which values and behavior patterns, beliefs, intellectual activity, and products of a group’s work and thought represents what they together have come to understand, value, trust, and advocate to others about themselves. Nonetheless, to the degree Memes are thought to be uniquely identifiable characteristics or archetypical subsets of social traditions that have distinct core knowledge and belief, Spiral Dynamics may be examined for a potential symbiotic relationship with the models of psycho-social preferences already illustrated in [Figure 3-2](#).]

Beck and Cowan explain that there are eight identifiable Memes that (1) represent patterns of human thought and behavior over the ages; (2) that Memes change as individuals and social entities have “awakenings” and spiral forward to higher levels of cognitive and emotional development; (3) that the eight levels of Memes alternate between the Self-Expressive and Self-Sacrificing modes of being; (4) that multiple Memes may be present in the thinking and behavior of individuals and groups at any particular time and place in society; and (5) that each Meme is identifiable by a color and key words that mark its unique nature and impact. The authors say that: “What biochemical genes are to cellular DNA, Memes are to our psycho-social and organizational ‘DNA’...they take us through the fascinating dynamics of spiraling human systems...These include the dynamics of change, leadership, complexity, alignment and integration.” (p.4) Also, the authors state that: “Environmental factors (Time, Place, Conditions and Circumstance) awaken systems within people and societies designed to cope with and adapt to those specific *Life Conditions*.” (p.288)

Memes already in societal relationships are organized into the six in the *first tier* which represent the *old management paradigm* (reference to organizational management and leadership), and the first two (Numbers seven and eight of six) already developing in the more socially advanced *second tier*. To align with the pattern recognition framework in this book, the Memes have been correlated with brain dominance and the MBTI below and are illustrated in reference [Figure 3-2](#) as colored lines around the periphery of the model.

Tier 1:

- Level 1 The Survival-Sense Meme – Color is **beige**, primary objective is survival, and behavior is seen as basic-instinctive. Level 1 is recognized as a strong limbic brain (SF) activity that emphasizes the use of MBTI Sensing during perception. The overarching goal is to “stay alive through innate sensory equipment.”
- Level 2 The Kin-Spirits Meme – Color is **purple**, primary objective is safety, and behavior is seen as magical-mystical. Level 2 is recognized as a strong limbic brain (SF) activity that emphasizes the use of MBTI Feeling during judgment. The overarching goal is to rely on “blood relationships and mysticism in a magical and scary world.”

- Level 3 The Power-Gods Meme – Color is **red**, primary objective is dominance/power, and behavior is seen as powerful-impulsive. Level 3 is recognized as a strong left brain (ST) activity that emphasizes the use of MBTI Sensing during perception. The overarching goal is to “enforce power over self, others, and nature through exploitive independence.”
- Level 4 The Truth-Force Meme – Color is **blue**, primary objective is meaning/order, and behavior is seen as purposeful-saintly. Level 4 is recognized as a strong left brain (ST) activity that emphasizes the use of MBTI Thinking during judgment. The overarching goal is to “maintain absolute belief in one right way and obedience to authority.”
- Level 5 The Strive-Drive Meme – Color is **orange**, autonomy/manipulation is the primary objective, and behavior is seen as strategic-materialist. Level 5 is recognized as a strong cerebral brain (NT) activity that emphasizes the use of MBTI Thinking during judgment. The overarching goal is to use “possibility thinking focused on making things better for self.”
- Level 6 The Human-Bond Meme – Color is **green**, primary objective is equality/community, and behavior is seen as sensitive-humanistic. Level 6 is recognized as a strong right brain (NF) activity that emphasizes the use of MBTI Feeling during judgment. The overarching goal is to ensure “well-being of people and building consensus get highest priority.”

Tier Two:

- Level 7 The Flex-Flow Meme – Color is **yellow**, primary objective is flexibility/natural flows, and behavior is and seen as integrative-ecological. Level 7 is recognized as a strong right brain (NF) activity that emphasizes the use of MBTI Intuition during perception. The overarching goal is to use “flexible adaptation to change through connected, big-picture views.”
- Level 8 The Global-View Meme – Color is **turquoise**, primary objective is life/harmony, and behavior is seen as holistic-global. Level 8 is recognized as a strong cerebral (NT) activity that emphasizes the use of MBTI Intuition during perception. The overarching goal is to draw “attention to whole-earth dynamics and macro-level actions.” (p.47)

Spiral Dynamics is a complementary overlay to the previously discussed psychological assessment tools. It provides a cultural dimension and context within which the other techniques may be better understood. Two examples showing the connection to the MBTI are provided:

Example #1 (Corporate Board Meeting) – Were we in a social service organization corporate board meeting, we might witness a cerebrally-centered ENTJ vice president making a strategically sound and materialistically-oriented (**Orange Meme**) argument for a course of action that is vehemently opposed by the limbic-centered INFJ corporate human resources

officer on the grounds that the course of action proposed directly contradicts the firm's community and humanistic values as stated in the new employee handbook (**Green Meme**).

Example #2 (Program Review) – Were we involved in a program review meeting, we might observe a left-brained ISTJ financial manager, following standard financial practices (**Blue Meme**), dispute the right-brained ENFJ program manager's expenditures for team building conducted for the program's sponsors and clients (**Yellow Meme**). And, the INTJ CEO might just be frustrated by the inability of his subordinate managers to just do the "smart thing" (**Turquoise Meme**).

Universal Goals and Ideals

Experts are individuals who can recognize and make sense of more patterns than their peers. Sometimes, experts will "see" or recognize patterns that they may not be able to explain. They may even call it instinct or intuition.

B. Eugene Griessman

Our attention is now directed to the inspirational thinking patterns that have influenced personal and social development throughout the civilization of humankind over the last millennium. The reader is invited to conduct a visual comparison between Figure 3-4 below and Figure 3-2 presented earlier in this chapter. The review will show the continuation of the basic brain dominance, MBTI, learning, and Spiral Dynamics concepts, but with the exchange of MBTI Type descriptions by a set of selected *universal goals and ideals*.

Learnership as a philosophy for successful living and working proposes a meta-system thinking pattern in which individuals pursue *self-fulfillment*, organizations seek *high performance*, communities focus on the *common good*, and societies aspire toward *human enlightenment* – a holistic, integrated, comprehensive, goal-seeking worldview. And to set the context for those achievements, six sets of ideals have been selected from the thoughts and writings of earlier sages and philosophers – the habits of mind that encourage our learning, leading, and being: striving to experience (1) *justice and equality*, (2) *truth and honesty*; (3) *responsibility and trust*; (4) *freedom and democracy*; (5) *beauty and goodness*; and (6) *love and happiness*. The summary level definitions used in this book for these goals and ideals are:

Universal Goals:

1. Self-Fulfillment – Achieving one's foremost purpose; obtaining major needs, wants and desires; maximizing advancement potential in the cognitive, affective and psychomotor aspects of ourselves; attaining positive recognition.
2. High Performance – Achieving the organization's greatest efficiency and effectiveness; business and/or mission accomplishment; satisfying constituents, customers, workers and owners.

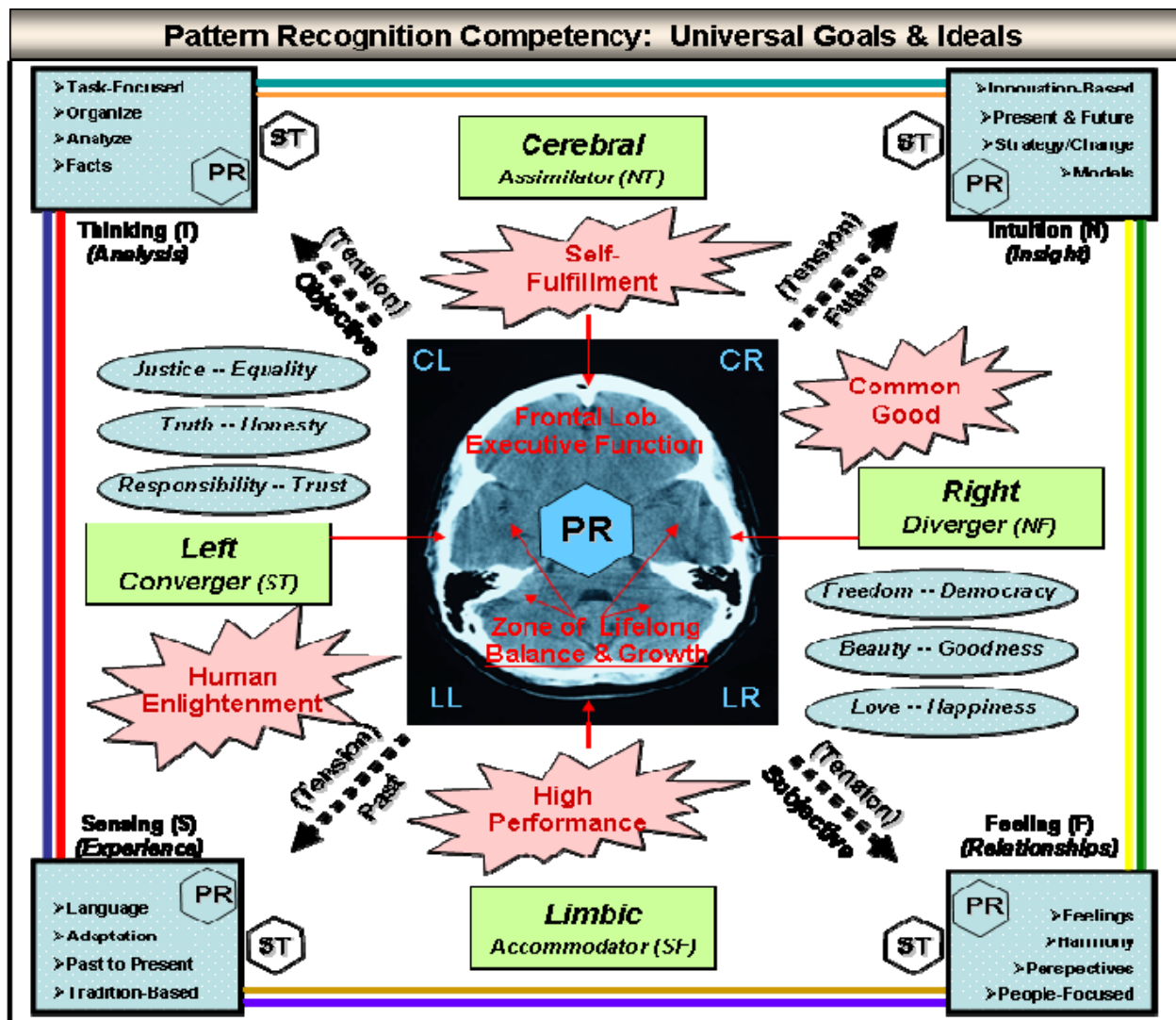


Figure 3-4

3. Common Good – Achieving community institutional synthesis and consensus; satisfying community members’ service expectations; providing opportunities for meaningful citizenship.
4. Human Enlightenment – Adding to the human capacity for fact-based learning and emotional maturity; improving worldwide thinking, learning, knowing and action; raising the standards of human conduct.

Universal Ideals:

1. Truth & Honesty – Conforming to facts; displaying integrity and sincerity.
2. Beauty & Goodness – A quality that delights the senses; being positive and desirable in nature.

3. Freedom & Democracy – Not bound or constrained; government by the people, majority rule.
4. Justice & Equality – Due reward and punishment; fair treatment and value.
5. Love & Happiness – Deep affection and concern; receiving enjoyment and pleasure.
6. Responsibility & Trust – Having personal accountability; reliance on the integrity and ability of a person or thing.

This section is intended to encourage those aspiring to become learnership practitioners to undergo a period of self-reflection and to confirm those highest order goals and ideals that make learning and leading an essential part of our process of “becoming” our future selves.

Religion and Spirituality. In the United States, there are currently twelve major Christian religions (together a large Christian majority) and significant numbers of Muslims, Jews, Hindus, Buddhists, Atheists and Agnostics. Studies show that notwithstanding peoples’ tendency to self-report allegiance to Christian churches, there may be almost 20 percent “unchurched” – who Robert Fuller in Spiritual, But Not Religious (2001) reports are *pursuing spirituality without religion* or are not actually committed to religious activity. According to Fuller, “Genuine spirituality, they believe, has to do with personal efforts to achieve greater harmony with the sacred. For them spirituality has to do with private reflection and private experience – not public ritual...Those who are ‘spiritual, but not religious’ tend to agree with Abraham Maslow’s belief that there is a potential antagonism between the private realm of religious experience and the public realm of formal religious practice.” (p.4) Furthermore, Fuller reports: “One survey showed that as much as 54 percent of the population has come to believe ‘that churches and synagogues have lost the real spiritual part of religion.’ And, “One out of every three adults interviewed in this survey endorsed the still more radical conclusion that “people have God within them, so churches aren’t really necessary.” (p.5) To be spiritual, but not religious appears to connote a desire to personally connect with a power or reality larger than oneself in a manner that makes rational sense to those involved; in contrast to simply adhering to the formal rituals, dogma, and often coercive official denominational doctrines of religious organizations.

The *private versus public* aspect of this evolving dichotomy is particularly noteworthy in that this trend is symbiotic with the founders of the American Constitution emphasis on enforcing a *separation between church and state*. Authors Issac Kramnick and R. Laurence Moore write in The Godless Constitution (1996) that: “Deism was, as we shall see, a powerful force among the intellectuals of the founding generation, even among many of the delegates in Philadelphia. A non-doctrinaire religion, deism rejected a supernatural faith built around an anthropomorphic God who intervened in human affairs, either in answer to prayer or for other, inscrutable reasons. Instead, it posited a naturalistic religion with a God understood as a supreme intelligence who after creating the world destined it to operate forever after according to natural, rational, and scientific laws...Until 1787, ‘there was never a nation in the world whose government was not circumscribed by religion.’” (p.34) The publisher of the Carlisle Pennsylvania “Aristocrotis” stated bluntly that: “...the new Constitution, disdains...belief of a deity, the immortality of the

soul, or the resurrection of the body, a day of judgment, or a future state of rewards and punishments, because its authors are committed to a natural religion that is deistic non-religion.” (p.35)

This thumbnail sketch of the pluralistic nature of American religious belief and spirituality demonstrates a broad range of individual and group perspective and another level of complexity in this chapter on Pattern Recognition. To illustrate how major religious and spiritual quests (might be notionally) symbiotic with human psychological preferences, the following inferences are provided to elicit discussion. It is clearly recognized herein that no definitive research on these relationships is likely to be available. Using Figure 3-5 for reference:

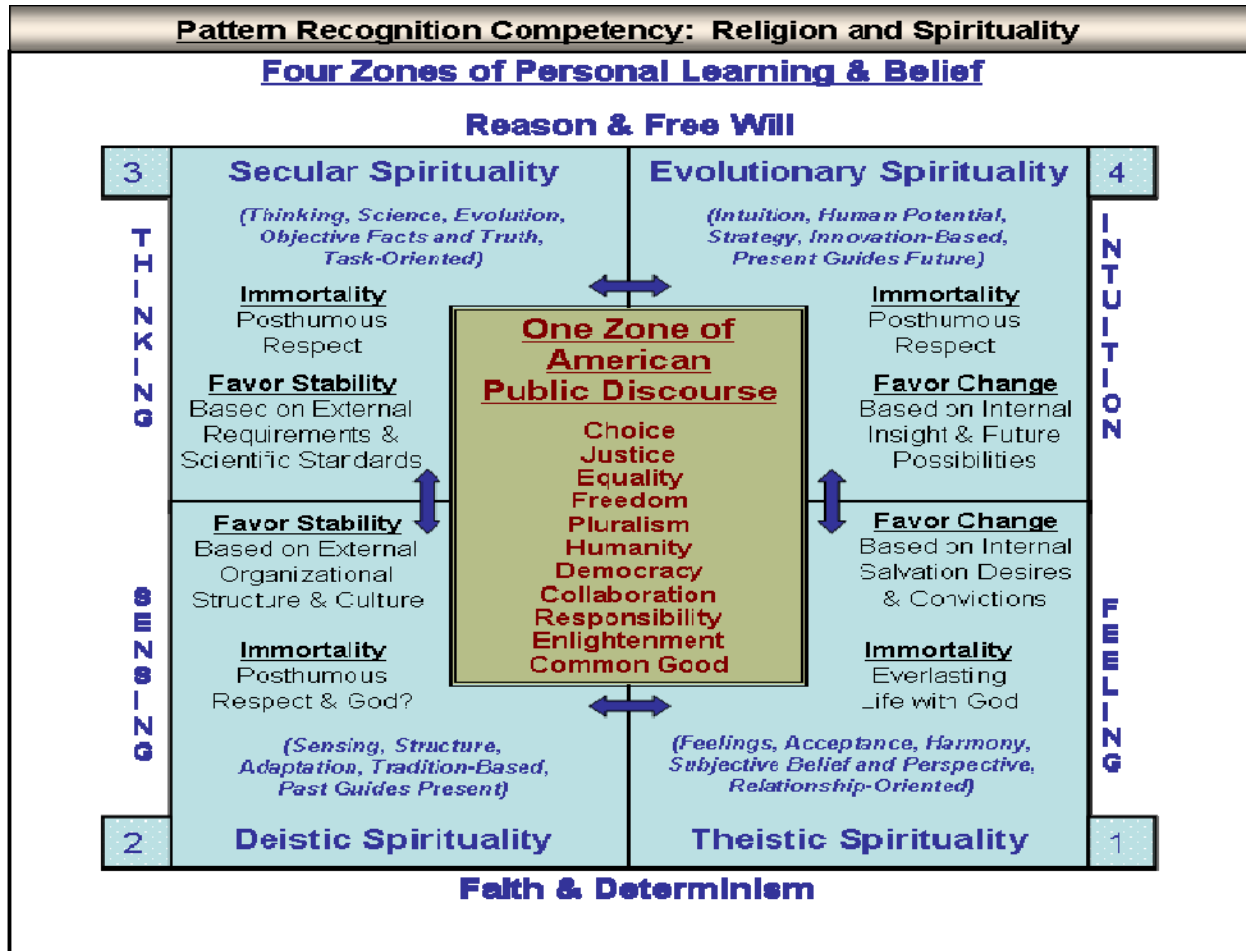


Figure 3-5

1. Monotheistic (Only one personal, and external God).

Focus – Religious and spiritual.

Organizational Construct – Christianity, Judaism, Islam.

Psychological Basis – Strong limbic, feelings, SF/NF, relationship-focused; subjective belief in the “truth” taught by one’s own prophet.

Achieving Immortality – Life, after death, with God.

2. Henotheistic (One main, mostly impersonal, external God).

Focus – Religious and spiritual.

Organizational Construct – Deism, Hinduism, Buddhism.

Psychological Basis – Strong limbic, sensing, SF/ST, tradition-based; influenced by authoritarian culture.

Achieving Immortality – Adherence to naturalism, spiritual guidance or God-figures.

3. Non-Theistic/Secular (No God).

Focus – Non-religious, possibly spiritual.

Organizational Construct – Atheism, Agnosticism, Non-Religious.

Psychological Basis – Strong cerebral, thinking, NT/ST, task-oriented; objective analysis of scientific data.

Achieving Immortality – Enduring reputation for personal and organizational achievement.

4. Humanistic (Humankind evolves internal, some God-like, capabilities).

Focus – Non-religious, but spiritual.

Organizational Construct – Evolutionary Enlightenment, Human Transformation, Ethical Humanism.

Psychological Basis – Strong cerebral, intuition, NT/NF, development-based; influenced by human potential literature.

Achieving Immortality – Enduring reputation for community and societal accomplishment.

[Author’s Note: The above extrapolation is presented to illustrate the existence of deeply rooted worldviews and situational complexity when human groups with wide variations in culture, knowledge, education, ethnicity, and experience attempt to resolve conflicts or plan community and societal initiatives. The willingness for group members to refrain from “wearing their

religion on their sleeves” and to engage each other in respectful dialogue is essential for any kind of resolution and/or consensus to occur. The need is for a facilitated communication process in which the issue and its context are carefully defined, and a progressive and phased dialogue is conducted so a cooperative, if not totally collaborative, result is achieved. The themes and perspectives advocated in this book, due to the absence of the theistic dogma at the core of major religious beliefs, are acknowledged to be primarily of the secular humanistic tradition while respecting the other traditions.]

Learnership practitioners are skilled in recognizing patterns in play during social activities and in taking constructive action to validate and/or reset the frames of reference for better discourse. In a typical situation, it is sufficient to conduct high level psycho-social pattern interpretation that distinguishes among those participants who are bringing diametrically opposed viewing points to the conversation, such as: sensing versus intuition, thinking versus feeling, cerebral versus limbic, and/or left-brain versus right-brain. The resolution of these matters is not to select one perspective over another, but to acknowledge that all add value to the issue at hand; and that the best way to proceed is to use a sequential discovery process in which a number of viewing points are considered but only one at a time to reduce unnecessary conflict and confusion. In such a situation, the learnership practitioner’s reasoning and facilitation skills enable constructive discussion.

*“A firm sense of identity provides both a compass to determine
one’s course in life and ballast to keep one steady.”*

Allen Wheelis

Self, Meaning, and Identity (Why Am I?). Obtaining a fundamental understanding of *self*, our own personhood, is a task we all have in common. However, few of us perform the data collection and analysis sufficiently well to construct a solid foundation for the “why” we are the way we are. This section summarizes expert insight on the topics of *self, meaning, and identity* which will serve as a basis for further discussion on universal goals and ideals.

In Mind, Self, & Society (Works of George Herbert Mead) (1934), the editor Charles W. Morris relates Mead’s insightful conceptualization of the social character of the mind, and his conclusion that the emergence of what we term *self* and subsequent personality, is the result of the give-and-take between members of a social group or culture. Mead states that to have a *self* each of us must come to know ourselves in terms of both “I” and “me.” He says that by way of socialization we come to know ourselves as individual members of the group or society within which we have been developed – the “me” self-consciousness of ourselves. Conversely, when we inculcate additional learning into our personal thinking and behavior, and act upon that new and different knowledge to impact our respective social groups and society – we recognize the “I” of our self-consciousness. The concurrent development of our individual “I” and “me” yields an evolving *self* that matures through our personal lifetimes. The significant contribution of this perspective to the learnership architecture presented in this book is the implicit challenge that we as individuals, as a developmental necessity, have to establish a multi-dimensional social context within which we conduct our lives. The Learnership Integrated Systems Architecture (LISA) that presents a personal, organizational and community social systems development schema that together drive societal systems development is meant to capture this imperative.

In Man's Search for Meaning (1959), author and holocaust survivor Victor Frankl explains his development of Logotherapy (logos is Greek for "meaning") for counseling others in developing a will to live. He said that "striving to *find a meaning in one's life* is the primary motivational force in man." (p.99) Drawing on his experience in Auschwitz and what it took to survive when even one's dignity was taken away, he speaks eloquently on how "...each man is questioned by life; and he can only answer to life by answering for his own life; to life he can only respond by being responsible...logotherapy sees in *responsibleness* the very essence of human existence." [Italics added] (p.109) The conclusion here is that everyone is responsible for determining their own *will to meaning*, as contrasted with Freud's "will to pleasure" and Adler's "will to power." In fact, Frankl was known to comment when in America: "I recommend that the Statue of Liberty on the East Coast be supplemented by the Statue of Responsibility on the West Coast." (p.159)

Allen Wheelis, author of The Quest for Identity (1958) offers another perspective on the meaning of one's life by focusing attention on our ability to create *a sense of ourselves, our identity*. If we do not know who we are, it is difficult to aspire to having personal *meaning*. Wheelis says: "*Identity* is a coherent sense of self. It depends upon the awareness that one's endeavors and one's life make sense, that they are meaningful in the context in which life is lived. It depends also upon stable values, and upon the conviction that one's actions and values are harmoniously related. It is a sense of wholeness, of integration, of knowing what is right and what is wrong, and of being able to choose." (p.19)

Wheelis also comments that there is a distinct *diminishing of human will* in today's turbulent and ever changing society. He says: "When human affairs appear to be inexorably determined by forces over which man has no control, the concept of will has little significance. [but] When human affairs are characterized by a sense of freedom, when society concerns itself with the rights and dignity of the individual, the concept of will is of great importance." (p.43) It appears that restoration of *will* is essential to the formation of *identity* which is essential to ascertain one's *meaning* – and that these are basic human self-identity issues, responsibilities and opportunities with which we all must deal.

On the one hand, it appears that self-identity is a foundation upon which most every other thing in life we say or do depends. It is our true sense of being, it colors the way we think and do things. It is the point from which we develop our "leverage" in dealing with life's challenges and responsibilities. A strong identity makes decision-making easier because we know who and what we are and make our choices accordingly. A weak or illusive identity diffuses contrasts, makes decision making harder, increases anxiety, harms our health, and makes us generally less efficient. On the other hand, a self identity that fails to learn, grow and develop as the context of our lives continues to expand and our experiences become more mature, we risk becoming an irrelevant relic in the evolutionary development of humankind. The solution to this apparent paradox lies in recognizing that human development is a lifelong learning-to-learn process in which the expectation is that new learning and knowledge leads to the continued reflection and refining of our core values and ideals. In fact, this must happen for us to discover, over time, who we are becoming (our identity) and what we should do with our lives (our meaning). And, lest

we forget, every self-identity reflects a discoverable pattern of thought and behavior – the subject of this Pattern Recognition chapter.

*“America must be a community where everyone can achieve
personal freedom and basic security through hard work.”
David Callahan*

“Being” and Ideals (What Should I?). Probably everyone by now has some knowledge of Maslow’s hierarchy of needs proposed in his original 1943 paper entitled: “Theory of Human Motivation.” The Hierarchy is often depicted as a five level pyramid starting at the bottom with psychological needs and progressing upwards to self-actualization needs as follows:

- Level 1 Physiological Needs – Breathing, food, water, sex, sleep homeostasis, and an excretion.
- Level 2 Safety Needs – Security of body, of employment, or resources, of morality, of the family, of health, and of property.
- Level 3 Love/Belonging Needs – Friendship, family, and sexual intimacy.
- Level 4 Esteem Needs – Self-esteem, confidence, achievement, respect of others, and respect of others.
- Level 5 Self-Actualization – Morality, creativity, spontaneity, problem solving, lack of prejudice, and acceptance of facts.

For Maslow, the first four levels were considered to be *deficiency needs* and the fifth level was for *growth needs*. Unless our lower level needs are sufficiently satisfied, it is difficult to focus on our growth needs. While some have criticized Maslow’s theory, most find it to be a compelling framework for practical application. After Maslow’s death, a compilation of his later writings were organized into a book entitled: The Farther Reaches of Human Nature (1971) in which his elaborations on such topics as transcendence, meta-motivation, and *being-values*. His thoughts on *being-values* are of particular interest in this study, and he says that: Self-actuating people are, without one single exception [in his own study], involved in a cause outside their own skin, in something outside themselves...They are working at something which fate has called them...the *being values*.” (p.42)

Maslow continues by stating that *being-values* occur in a meta-needs context and are experienced when self-actualizing people have “peak” experiences. (p.43) He provides eight illustrations in which a person can self-actualize which include some combination of: “(1) the use of full concentration and total absorption; (2) establishing a sequence of progressive, positive choices; (3) listening to one’s own impulse voices; (4) taking responsibility for honest actions; (5) having the courage to choose to disagree and goes one’s own way; (6) the willingness to prepare oneself for opportunities; (7) having had peak-experiences; and (8) having done self-reflection in an effort to free oneself from unhelpful defenses.” (pp.46-47) Lastly, Maslow asserts that: the result of having the capacity to enter into self-actualization is that one

experiences selfhood, humanism, the far goals of all psychotherapies, and the characteristics of the *ideally good environment* and of the *ideally good society*. These higher order values or ideals are said to include truth, goodness, beauty, justice, wholeness and many other top tier guides to our personal and social performance.

Another contributor to the literature on higher-order personal and social values and ideals is Mortimer Adler. His book Six Great Ideas (1981) is a well-argued treatise on the ideas we judge by and the ideas we live by. Adler initiated his quest to determine the most significant or great ideas by starting with a prior effort in which 102 important words and concepts were selected by experts to enable a reasoned study of the great books of Western civilization. He then investigated the supporting relationships among those words/concepts to discern those that should be the best starting point for a reasoned and systematic study of those ideas. The result was his selection of *truth, goodness and beauty* as ideas we judge by, and *liberty, equality, and justice* as ideas we live by.

His reasoning for liberty, equality, and justice was that: “They represent ideals which a considerable portion of the human race has sought to realize for themselves and their posterity...Only in human society, in which the individual is associated both cooperatively and competitively with other human beings, is there any articulation of claims for liberty, equality, and justice, and only in society do individuals engage in the actions needed to support such claims.” (p.23) In terms of his choices of truth, goodness and beauty, Adler says that: “Unlike the ideas we live by (liberty, equality, and justice), these three function for us in our private as well as our public life. The solitary individual enabled to live comfortably by himself or herself would still have occasion to judge something to be true or false, to appraise this to be good and that evil, to discriminate between the beautiful and the ugly.” (p.24)

*You can't wait for somebody to make a path.
You have to go in and make mistakes and create your own path.
Robert Goizueta*

Achievement Factors (How Can I?). Assuming for the moment that we have come to understand our *identity*, and are willing to seek our *meaning*, and we are motivated to *self-actualize*, and the *universal goals and ideals* are on our to-do list; the question still remains: How do I go about pursuing my future success. Author B. Eugene Griessman offers to help us out in his book: The Achievement Factors: Candid Interviews with Some of the Most Successful People of Our Time (1987). Griessman defines “a high achiever as someone whose work and reputation is such that he or she cannot be ignored by people in their field. Their peers do not have to approve of their work, but they must reckon with it.” (p.4) His analysis of his interviews indicates nine general principles that distinguish those who achieve the greatest success:

High achievers discover their vocation and their *specialty*. They find something they love doing, something at which they can become really proficient.

High achievers *develop a competency*. There is no long-term success without developing one's interest, or specialty, into a real competence.

High achievers value and manage what everyone starts out with: *Time*. They are aware that they live in a very time-constrained society and that they must learn to cope with its demands.

High achievers *are persistent*. They are not easily stopped – if they feel that they are on the right track.

High achievers *channel their needs* and wishes into their work. Individuals who are able to channel intense desire into focused, informed, and sustained effort often do attain significant goals.

High achievers develop the *ability to focus*. They possess the ability to tune out static and distractions and give absolute attention to the task at hand.

High achievers *function appropriately* in their situations. There is no denying the importance of being in the right place at the right time.

High achievers *perceive opportunities*. They are always learning, because they are inquisitive, questioning individuals.

High achievers *seize opportunities*. They recognize the existence and importance of trends and social forces, and they try to exploit them for their own purposes.” (pp.241-251)

Griessman makes two noteworthy comments about the results of his study. The first is that his list is not comprehensive and there are certainly factors worthy of consideration from other studies. The second is that the personal characteristics of all those he interviewed were not always positive and that the price of success has occasionally been unsatisfactory outcomes in other areas of their lives. Notwithstanding these findings, it is clear that most successful people have a knack for rapid practical learning and an affinity for adaptive leadership to move others and resources toward the ends they desire. Our learnership practitioners will need to conduct a self-assessment of their own competencies and initiative to determine how they can further develop the knowledge, attitude and methodological patterns that will enable goal achievement.

Conclusion

Pattern Recognition Competency. The purpose of Chapter Three has been to introduce an array of topics that illuminate the many aspects of pattern recognition, and to explain why it is necessary to develop skills in determining how these patterns impact personal style and social discourse. Some of the major learning points for learnership practitioners are to:

1. Understand the brain as an information processor, database and a learning system.
2. Develop our own cognitive and affective reasoning skills.
3. Understand others’ cultural programming, personal preferences, and styles of behavior.
4. Recognize and deal appropriately with contextual patterns in social affairs.

5. Appreciate the power of religious worldviews and people's need to sense spirituality.
6. Learn-to-learn a wide range of models and relationships useful in social system dialogue, making choices (exercising and opinion) and decision-making (having consequences).

Our ability to pause and reflect on the *system thinking* suggestions in Chapter One and the *pattern recognition* observations here in Chapter Three will pay off significantly when we engage in the challenging social situations in the next chapter on *situational learning*.

Implications for Total Knowledge Management. The inability to skillfully recognize similarities and differences among workgroup members and/or between various types of work assignments and methods directly affects the quality of team relationships and performance. In every day life the factors that make us think and act somewhat differently from others are far more numerous than those that tend to make us similar. Differences in age, culture, gender, education, career fields, work assignments, social circles, experience, expectations, and other mental programming make organizational, community, and personal relationships very difficult when it comes to establishing the alignment and cohesion required for high performance. Effective leadership and management are necessary as well as a willingness among those involved to increase their sensitivity and awareness of the situation and be open to the information and clues that help to understand the roles, objectives, styles, and objectives always in play, but not always clearly expressed. Effective knowledge management depends on understanding what is needed by whom and when; clarity and accuracy matter as well a efficient communication and coordination. Knowledge and skill in pattern recognition enables the accuracy and speed of information sharing, task learning, and issue resolution.

Personal Reflection. This topic appears at the end of each chapter and is meant to serve two purposes: (1) be a reader's guide to main points and "takeaways," and (2) to encourage everyone to take a moment to engage their mental cognition and intuition on what the chapter means to them – especially at this time in their lives. Questions for chapter reflection follow immediately below; and for those readers inclined to maintain a self-assessment, your thoughts may be recorded in your Learnership Journal for Life and Career Reflection and Renewal which is located at the epilogue.

Questions for Discussion:

1. Have you ever participated in a work group and wondered to yourself: What is wrong with these people; why do they fail to understand how things get done around here? Can't they see that they are wasting everyone's time? Please consider the mistakes managers often make when attempting to get action in such a situation.
2. Do you agree that people from different cultures, upbringing, experiences, career fields, and age groups have been programmed to have different viewing points, objectives, priorities, and approaches to the same situation or event? What needs to be considered when managing within such diversity? Please explain.

3. Are you able to compare yourself with someone else you know well in terms of either the mental models or learning styles you each prefer? Please explain.
4. Can you list two to three major learning points from this chapter that you want to keep in mind to improve your ability to manage your life and career?
5. What do you think the impact of this chapter's information might be on the personal, organizational, community, and/or societal systems to be discussed later in the book?
6. Can you identify two to three topics, models, or perspectives in this chapter you would like to learn more about?
7. Should you be making an entry into your learnership journal at this time?

SECOND INTERLUDE

At this juncture, two foundational reasoning competencies have been introduced and explored: system thinking and pattern recognition. *Systems Thinking* (ST) enables the learnership practitioner to add significant context when understanding problems and finding opportunities, thereby creating a higher value, more inclusive platform for teamwork and consensus. In his book The Fifth Discipline: The Art and Practice of the Learning Organization (1990), Peter Senge refers to “systems thinking” as the fifth discipline that integrates his other four disciplines (Personal Mastery, Mental Models, Building Shared Vision, and Team Learning). *Using systems thinking encourages more comprehensive interpersonal dialogue, and expands the solution space for better decision-making.*

Pattern Recognition (PR) provides the learnership practitioner with insight on the thinking, learning, perspectives, and strategies used by the self and others in personal and social relationships. Pattern recognition is an acquired skill set, and is focused on (1) understanding the knowledge and experience the self and others prefer to use in social activities, and on (2) deciphering the codified methods and standards prominent in educational fields and career endeavors. The awareness of personal and organization preferences and cultures encourage reflexive dialogue, enable better learning, and (hopefully) ensure the selection and application of best available practices for whatever we or our organizations need to accomplish. Senge refers to this subject area the “mental model” discipline.

The Learnership: An Integrated Systems Architecture (LISA), the figure below, is a work in progress. It contains selected features from the ST and PR topics of Chapters Two and Three, and provides a template for elements to be added from the three chapters that follow. The Third Interlude (following Chapter Six) displays the complete Learnership Integrated Systems Architecture (LISA). That final model is intended as a quick reference tool and reminder for learnership practitioners in pursuing personal development and their organizational and community interventions.

Learnership practitioners are well-served by their knowledge and skill in *systems thinking* and *pattern recognition*. These two reasoning competencies lay an essential foundation for the three reasoning competencies addressed in the following chapters. *Situational Learning (SL)* can only be efficiently accomplished when the ST and PR contextual factors are recognized and accommodated in social deliberation. *Knowledge Management (KM)* directs attention to the systematic identification, acquisition, organization, use, and application of new learning – it is the recipient of effective, efficient ST, PR, and SL. And, *Adaptive Leadership (AL)* is the means by which knowledge is put into action. Without action, knowledge cannot fulfill its developmental reason for being – and neither can we!

Lastly, an important footnote here is the emerging sub-theme of Total Knowledge Management (TKM) that is beginning to develop. Systems Thinking (ST) and Pattern Recognition (PR) support the conduct of Situational Learning (SL) which in turn, enables knowledge management (KM). And knowledge management, when fully developed and implemented through Adaptive Leadership (AL) becomes Total Knowledge Management (TKM) for use in full-scale learnership social systems development. The effect in this action is that *LISA becomes a pictorial of TKM.*

