The Individual:

A System of Characteristics

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Third Edition

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Human Resources Development

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The Individual: A System of Characteristics

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The Individual: A System of Characteristics

This segment of the series reviews many interesting and enlightening frames of reference for understanding oneself, others, and one's own and others' behavior. It is an in-depth look at an individual as a system of various specific aspects or characteristics. These include: nervous system mechanisms; basic needs and drives; various aptitudes, abilities, and specialized skills; knowledge and experience; physical traits; values; personality traits; interests; and goals and expectations. Human behavior is influenced by all these traits acting with and upon each other. Here we will define and describe each characteristic. Also, we will discuss (a) personal and environmental influences on the development of and changes in each trait; (b) how a particular trait can influence the development of and changes in other traits; and (c) how each trait can influence behavior.

A more in-depth understanding of personal characteristics, their development, and their influences on behavior can benefit an individual in several important ways.

First, one can describe, understand, and think about oneself in very specific terms — rather than in vague or general terms, as most people do. Greater personal awareness and understanding result when one takes a little time to answer these questions in detail: "Who am I? What am I really like down deep inside? What makes me tick?" (We have provided a Personal Inventory Format for those who wish to assess and record the levels of their various characteristics as they read.)

Second, deeper insight into oneself contributes to more effective personal goal-setting and planning (personal motivation). An individual cannot easily determine who or what to become and where to go in life without first identifying in some detail who he or she is now and what is presently most important to him or her. [Doing a Personal Inventory is the first phase of a personal motivation method outlined in another segment of our Synergistic Personal Development Series.]

Third, greater self-awareness and understanding contribute to more effective personal development and improvement in order to become an even better husband, wife, parent, manager, leader, jobholder, or whatever, one must first answer three major questions: "What are the present levels of my various characteristics? What levels of these characteristics must I have in order to be who I want to be or get where I want to go in life? Which of my existing traits must I therefore adjust, improve, or further develop?" (Completing a personal inventory helps provide answers to the first question.)

Fourth, an understanding of the personal and external influences on human characteristics can be used to improve one's own and others' traits and behavior. In effect, such knowledge enables a person to exert more active, purposeful, effective influences on the developmental and change processes that affect self and others (instead of passively letting self and others be randomly affected by these processes).

Fifth, a greater understanding of one's own and others' traits and behavior enables an individual to develop and maintain better, more satisfying interpersonal relationships. Being able to look at oneself and others in greater depth contributes to greater interpersonal awareness, understanding, insight, sensitivity, conscientiousness, flexibility, tolerance, patience, and tact.

Sixth, greater awareness and understanding of one's own and others' behavior contribute to a better understanding of organizational and managerial behavior. This, in turn, contributes to more functional and satisfying working relationships.

We should add that the vocabulary, frames of reference, concepts, and principles covered in this segment are basic, preliminary inputs for reading all subsequent segments of our Synergistic Personal Development Series and Synergistic Management Series.

HOW TO USE THIS SEGMENT AS A PERSONAL INVENTORY

Part II of this segment describes many specific personal characteristics and behavioral tendencies in some detail. As you read, you may wish to use this opportunity to form a more in-depth impression of yourself. You can do so by assessing your level of each characteristic and recording it on the Personal Inventory Format provided on pages 3, 4, and 5. If you intend to complete the Inventory, we recommend that you keep in mind the following suggestions and instructions.

Try to be as honest with yourself as possible, neither overestimating nor underestimating your level of each characteristic. Bear in mind that all human beings are fallible and that no one can be expected to be "perfect." Also remember that the initial formation or development of personal characteristics is mostly influenced by hereditary, parental, and environmental factors. Individuals have very little control over these influences, especially during their "formative years." This does not mean, however, that one must accept one's characteristics as being static or unimprovable. Most characteristics can be adjusted, improved, or further developed — if one has both the knowledge and desire to do so. Therefore, do not think only about who you are at present, but also consider who you can and will become. But first, recognize as realistically as possible who you are now, so that you have a benchmark from which to improve or further develop yourself.

We suggest that you carefully remove pages 3, 4, and 5 from this segment (along the dashed lines). Or, make copies if you wish. Then, after reading the entire descriptive section regarding, for example, "Basic Needs and Drives," assess your present level of each group of needs and record it on the inventory format under the "Basic Needs and Drives" heading. Do likewise for Abilities, Values, Personality Traits, and so on.

For basic needs/drives, values, and interests, assess your own personal level in terms of either (a) "very low," "low," "medium," "high," or "very high"; or (b) some number from 1 ("extremely low") to 99 ("extremely high"). For Abilities, Knowledge/Experience, and Personality Traits, assess your level relative to people in the general population in terms of (a) or (b) above. Figure 1 should help you make this comparison. If, for example, you think you are higher than 80% of the population in a particular personality trait, you would be within the 70th to 93rd percentile range — or "high."

To record your estimated level on the Inventory Format, you can simply mark an "X" or a dot in the appropriate box. To be more specific, you can mark the "X" or dot at one end or the other of a box to signify, for example, "high average," "low average," or the "low end of the high range." We recommend being even more specific by writing a number from 1 to 99 in the appropriate box.

The Inventory is also designed to enable you to consider the level of each characteristic that might be most appropriate in important roles such as "job" and "family." ("Other" has been left for you to specify as you wish.) When assessing the level required for your job, consider what level your superior might think necessary. When assessing the level that would contribute to good family relationships, consider what level other family members might think appropriate.

After filling in your present level and the level most appropriate for various roles, we suggest that you compare your level (in Column A) with the appropriate level (in Column B). If your estimated present level is as high as or higher than the appropriate level, consider it a strength and mark a (+) in Column C. If your level is significantly lower than the appropriate level, consider it a weakness and mark a (-) in Column C.

Be conscientious, thoughtful, and realistic, and you will derive maximum benefit from this segment. Give it the time and thought that you deserve. When you have completed it, save the Personal Inventory pages for use in connection with subsequent segments of the series.

Exhibit 1: Approximated Distribution of a General Population

Level	Very Low	Low	Average	High	Very High
% of Population at this Level	7%	24%	38%	24%	7%
Percentile	1 - 7	8 - 31	32 - 69	70 - 93	94 - 99

PERSONAL INVENTORY FORMAT

	A Mark your present level with an "X" or a dot, or write in your estimated percentile level from 1 (low) to 99 (hi).					B Assess level required in roles: Vlo, Lo, Avg., Hi, Vhi			C Compare columns A and B, mark Strengths (+) and Weaknesses (-)		
Characteristics	Very Low	Low	Med/ Avg.	Hi	Very Hi	Job	Family	Other	Job	Family	Other
BASIC NEEDS OR DRIVES											
Physiological											
Safety											
Social											
Ego (self-image)											
Self-actualization											
ABILITIES											
Academic intelligence											
Vocabulary											
Social insight (intelligence)											
Mechanical visualization											
Mechanical comprehension											
Clerical speed & accuracy											
Physical coordination											
Reading											
Communicative abilities											
Creativity											
Leadership abilities											
PHYSICAL CHARACTERISTICS											
Facial features											
General build or stature											
General appearance											
General health											
Energy or stamina											
VALUES											
Intellectual (theoretical)											
Economic (business, material)											
Social (altruistic)											
Political (power, influence)											
Aesthetic (artistic, beauty)											
Religious (spiritual)											
Practical-mindedness											
Achievement											
Variety											
Decisiveness											
Orderliness											
Goal-orientedness											
Support											
Conformity											
Recognition											
Independence											
Benevolence											
Leadership											
PERSONALITY TRAITS											
Vigor											
Self-confidence											
Dominance											
Sociability											
Adaptability											
Social conscientiousness											
Mature relations											
Responsibility											
Original thinking											
Emotional stability											
Self-control											

PERSONAL INVENTORY FORMAT (continued)

						VLo, Lo, Avg, Hi, VHi			Strengths (+) Weaknesses (-)		
	Very Low	Low	Med/ Avg.	Hi	Very Hi	Job	Family	Other	Job	Family	Other
KNOWLEDGE & EXPERIENCE **Human Relations**											
Psychology											
Sociology											
Anthropology											
Political science											
History											
Religion(s)											
Other cultures											
Parenthood											
Current events											
Law											
Sciences											
Biology											
Chemistry											
Physics											
Electronics											
Mechanics											
Aeronautics											
Computer technology											
Mathematics											
Geography											
Medicine											
Business											
Accounting											
Production											
Marketing											
Sales											
Advertising											
Finance											
Mgm't concepts/methods											
Mgm't/leadership practices											
Other Areas											
Art											
Literature											
Sports											
Education											
Personal development											
Travel											

PERSONAL INVENTORY FORMAT (continued)

	VLo	Lo	Med	Hi	VHi	Job	Family	Othjer	Job	Family	Other
INTERESTS											
Mechanical											
Mechanical engineer											
Manufacturing foreman											
Production manager											
Farmer											
Carpenter											
Assembler											
Machine operator											
Mechanic											
Repairperson											
Draftsperson											
Production engineer											
Computational											
Accountant											
Mathemetician											
Economist											
Statistician											
Office machine operator											
Broker											
Auditor											
Actuary											
Banker											
Executive											
Scientific											
Mathematician											
Chemist											
Biologist											
Geologist											
Psychologist											
Sociologist											
Lab technician											
Electronics engineer											
Physician											
Nurse											
Researcher											
Science teacher											
Persuasive											
Advertising manager											
Demonstrator											
Salesperson											
Sales manager											
Lawyer											
Clergyman											
Diplomat											
Executive											
Artistic											
Artist											
Illustrator											
Critic											
Sculptor											
Florist											
Jeweler											
Architect											
Art teacher											

PERSONAL INVENTORY FORMAT (continued)

	VLo	Lo	Med	Hi	VHi	Job	Family	Othjer	Job	Family	Other
Literary											
Writer											
Editor											
Publisher											
Copy editor											
Actor											
Educator											
Correspondent											
Reporter											
Literature teacher											
Journalist											
Librarian											
Critic											
Musical											
Composer											
Arranger											
Publisher											
Critic											
Music teacher											
Musician											
Singer											
Orchestra leader											
Sound engineer											
Accompanist											
Social Service											
Physician											
Nurse											
Policeman											
Personnel director											
Sociologist											
Clergyman											
Counselor											
Interviewer											
Social Worker											
Clerical											
Office Worker											
Auditor											
Accountant											
Bookkeeper											
Cashier											
Records keeper											
Stenographer											
Office machine operator											
Purchasing clerk											
Other (including Outdoor)											

PART I

SYSTEM OVERVIEW

Many theories, frames of reference, and models have been developed to describe or explain human motivation and behavior. Before discussing the model we have developed for our own use, we should briefly review some of the theories and frames of reference on which our model is based.

THEORIES OF MOTIVATION AND BEHAVIOR

This section reviews theories concerning emotions, motivation, personality, human neurophysiology, specific traits, and various environmental influences on behavior. Several of these are early theories that have been updated. Several are early theories that have been discounted, but are notable because of their contributions to the development of more recent thought concerning behavior.

Early Theories Involving Emotions and Instincts

James-Lange Theory of Emotions

James (1884) and Lange (1885) independently developed such similar theories regarding emotions that their work is now called the James-Lange Theory. They believed that emotion is an "organic-kinesthetic" reaction to internally- and externally- generated stimuli. In other words, perception of emotions occurs because of autonomic reactions (in lower brain areas) to emotion-producing stimuli.

Early Sociological/Anthropological Views

Various early sociologists and anthropologists observed instinctive behavior in both lower animals and human beings — e.g., "territorialism," the "maternal instinct," the instinct to "fight or flee," and the "herd instinct." These are several examples of territorial behavior: Wolves urinate on the boundaries of their territory to indicate "ownership" and warn off trespassers. Similarly, human beings erect walls or fences around their property. In organizations, people's "territories" (responsibilities, authority, space) are delineated by titles, organization charts, and physical boundaries. In many cultures, people place a ring on their spouse's finger, partly to indicate that he or she is "out of bounds to others." These are examples of "herd behavior": Animals, birds, and insects group together into, for example, a herd of elephants, a pride of lions, a flock of geese, or a colony of ants. Similarly, human beings group together in clans, tribes, neighborhoods, and so on.

McDougall's Aspect Theory of Instinct and Emotion

During the latter half of the nineteenth century, many writers on psychology developed theories that related in-born instincts to motivation. Many of these theories were based on sociologists' and anthropologists' observations concerning animal and human behavior.

McDougall (1908), a "purposivist," viewed instincts as being the primary motivating factors in human beings. He identified seven basic human instincts: flight (escape); pugnacity (combativeness); curiosity; disgust; parental behavior; self-assertion; and self-abasement. He paired each of these instincts with an emotion—e.g., flight with fear, and combat with anger. This theory has been replaced by more recent views.

Cannon-Bard Theory of Emotion

Influenced by the "thalamic theory" proposed by Head (1920), Cannon (1927) and Bard (1934) suggested that nerve impulses, which are generated by some stimulus, go to an integrative center in the thalamus (a structure in the lower area of the brain). From there, they thought, the impulses are conducted directly to the brain, where they determine the nature of the emotional experience.

Early Theories Involving Motivation and Personality

Freudian School of Thought

One early theory of motivation was developed by the famous psychoanalyst, Sigmund Freud (1883). Freud believed that behavior is sexually oriented and, therefore, physiologically determined.

Freud's thesis was as follows: The motivation for life is *libido*, which involves sexually-oriented desires and provides the drive for an individual's actions. Fulfilling libido involves seeking pleasure and avoiding pain. The libido exists in the unconscious mind (the "id"), but is repressed by conscious activity. Conscious activity has two aspects: (a) the *ego*, which involves knowledge of possible outcomes of behavior; and (b) the *superego* (or "conscience"), which operates to censor primitive, self-centered pleasure- seeking. Repression of the id by the ego and superego results in internal conflicts and tensions. The conflict between libido fulfillment and reality determines whether personality will develop in a normal or an abnormal direction. Individuals having abnormal personalities tend to relieve inner tensions by "fleeing from reality." Their flight from reality is manifested in neuroses and psychoses.

Adlerian School of Thought

Adler (1917), a contemporary of Freud, proposed the "theory of psychic compensation." He believed that human life begins with feelings of inferiority, and that the measure of one's adjustment is how and to what extent one compensates for these feelings. Today, those who adhere to Adler's basic views believe that one's compensatory behavior is influenced by social interaction with parents, family, coworkers, friends, and other individuals.

Jungian School of Thought

Jung (1903), also a contemporary of Freud, proposed an "introvert-extrovert type theory." Jung defined libido as "psychic energy." He believed that behavior is essentially ither extroverted or introverted. *Extroverts*, he said, direct psychic energy outward toward people, objects, and activities. *Introverts*, on the other hand, direct their psychic energy inward toward their own thoughts, daydreams, and fantasies.

Lewin's Topological Theory

Lewin (1936), another of Freud's contemporaries, proposed a "topological theory of personality." He identified three types of conflicts that affect personality:

> *Approach - Approach conflicts* arise when an individual is motivated toward two positively stimulating factors having about equal strength. Example: Which should the young man approach, the attractive blonde or the attractive brunette?
>
> *Avoidance - Avoidance conflicts* arise when a person is motivated away from two negatively stimulating factors having about equal strength. Example: You would like to "get out of the frying pan," but it would mean "stepping into the fire."
>
> *Approach - Avoidance conflicts* arise when an individual is confronted by one positively motivating factor and one negatively motivating factor, each about equal in strength. Example: The young man wants to ask the attractive blonde to dance, but hesitates to approach her for fear that she might refuse him, thereby embarrassing him and wounding his ego.

Lewin believed that approach-avoidance conflicts are most likely to create unresolved tensions and anxieties.

Behaviorist Theories

Behaviorist theories were originated by Watson (1924), who experimented with "conditioned" or "habituated" behavior in rats. Watson was influenced by the work of Pavlov (about 1900), who experimented with "conditioned reflexes" in dogs.

These theories involve associations among several events: Stimulus — Response — Reward. They hold that human behavior, like the behavior of lower animals, is "mechanistic" and can be conditioned by repetitiously associating a desired response with a given stimulus. Linking a desired response to a given stimulus is achieved by giving rewards for correct responses—and perhaps punishments for incorrect or inappropriate responses.

Gestalt School of Thought

These theories were initially advanced by Wertheimer (1930s). He and others noted that (a) an individual can form different perceptions of the same set of stimuli (e.g., when shown an optical illusion); and (b) different people can perceive the same situation (set of stimuli) differently. As a result, they developed the view that consciousness cannot always be explained in terms of component parts—especially when individuals' perceptions of stimuli differ significantly from the stimuli themselves. As Lewin put it in about 1939, "The whole is different from the sum of its parts."

Today, gestalt theorists view behavior as being integrated within some total context or "structure" (the German word for which is "gestalt"). This total context involves (a) all of an individual's characteristics, past experiences, and prior learning; and (b) all of the stimuli or circumstances comprising the environmental situation.

Neurophysiological Theories

Although scientific knowledge regarding neurological systems is increasing at an accelerating rate, much is already known about how these systems function to enable human beings to interact with their environment. (In fact, many people are unaware of just how much is known.) Insights into neurological processes underlie the basic formula on which modern theories of human motivation and behavior are based. This is the "S-I-R" formula: Stimulation (of sensory nerves by either internal or external, environmental stimuli) — Integration (interpretation of sensations and the formulation of a response to the stimuli) — Response.

The following sections very briefly describe the major neurological systems and brain structures, areas, and functions. The description is extremely basic, general, and simplistic. By no means does it deal with the complexities that are actually involved.

Basic Systems

The *Central Nervous System*: This entire system consists of nerve cells. Some are arranged into thread-like tracts similar to chains made up of individual links. Others are arranged into centers or units composed of groups or masses of cells.

All the tracts and centers of the central nervous system are organized into two major subsystems: the cerebro- spinal system and the autonomic nervous system.

> The *Cerebro-Spinal System*: This complex system receives and interprets sensory information, integrates (formulates) a response, and then effects some physical response (behavior). Mainly consisting of the brain and spinal cord, it is connected by afferent nerve tracts to two types of receptor nerves in the body: exteroceptors and proprioceptors. Exteroceptors, located in sense organs (eyes, ears, nose, tongue, and skin), sense environmental stimuli. Proprioceptors, which are located in the linings of muscles, joints, and tendons, send feedback regarding bodily movement to the brain. The cerebro-spinal system is also connected by efferent nerve tracts to effector nerves. These nerves, located in muscles, trigger movement based on "instructions" or "messages" sent from motor areas of the brain.

> The *Autonomic (Sympathetic) Nervous System*: This system governs unconscious or "automatic" functions in the body (e.g., heartbeat, breathing, and digestion). It, too, is mainly composed of nerve cells in the brain and spinal cord. It is connected by afferent nerve tracts to receptor nerves called "interoceptors." These nerves, located in the digestive, respiratory, and circulatory systems, sense changes within the body. The system is also connected by efferent nerve tracts to effector nerves, which are located in various glands and in various muscles (e.g., the heart and lungs).

Brain Structures, Areas, and Functions

The brain has several major neurological structures and areas, each devoted to particular functions.

Medulla: The medulla's chief function is to provide re-lay centers between the spinal cord and higher centers of the brain. It also contains neural connections that automatically control physiological processes such as breathing and blood pressure.

Pons: The pons mostly affects equilibrium and motor (muscular) coordination. It contains nerve fibers that interconnect various parts of the brain stem, the cerebellum, and the cerebrum.

Cerebellum: The cerebellum largely influences muscular coordination. It is activated by impulses from receptor nerves.

Thalamus: The thalamus is the center that directs all sensory impulses from receptor nerves to appropriate regions of the cerebrum for processing. In addition, sensory and motor connections between it and lower levels underlie much unconscious or automatic behavior.

Cerebrum: The cerebrum is by far the largest and most complex structure. It contains three major areas: sensory, associative, and motor.

A. *Sensory Areas*: These areas are located in the parietal, occipital, and temporal lobes of the cerebral cortex. They convert impulses from receptor nerves into sight, sound, taste, smell, touch, and muscle activity sensations.

B. *Associative/Interpretive Areas*: These areas translate various types of sensations into meaningful perceptions. They are generally grouped into three classes: sensory, motor, and frontal.

   1. *Associative Sensory Areas*: These interpret sensations involving stimuli such as light and sound.

   2. *Associative Motor Areas*: These interpret motion-related stimuli and control motor processes.

   3. *Frontal Areas*: These areas are involved in memory, reasoning, and motivation.

      a. Memory Areas contain specialized areas for recording visual, auditory, and motor sensations. Experiential sensations are recorded and stored in memory areas in the form of organized patterns of "interconnected" brain cells.

      b. Reasoning Areas are where information is processed as we solve problems and make decisions.

C. *Motor Areas*: Once instructions involving muscular movement have been formulated in associative motor areas, these separate motor areas translate the instructions into impulses or "messages" that are carried by efferent nerve tracts to effector nerves. When activated by these impulses, effector nerves stimulate muscular movement in, for example, speech apparatus, legs, arms, and hands.

All the processes that occur within the central nervous system are basically electro-chemical reactions within and between nerve cells.

Need/Drive Theories

More recent theories of motivation hold that human behavior is basically motivated by certain biological and psychological needs or drives.

Maslow (1943), whose "Hierarchy of Needs" we will discuss shortly, refers to physiological, safety, social, ego, and self- actualization needs. McClelland (1961) refers to the needs for affiliation, achievement, and power. Alderfer (1969) refers to existence, relatedness, and growth needs.

Trait Theories

Rather than being theories of behavior per se, these might better be described as "frames of reference for categorizing and measuring distinct patterns of behavior." Largely the work of clinical psychologists, these frames of reference separate behavioral phenomena into broad groups—and then into more finite traits.

As early as 1905, Binet and Simon began testing certain attributes of intelligence. Many others, including Terman (1916), Thurstone (1938), and Wechsler (1939), also developed tests to measure various aspects of intelligence. Since about 1920, various test instruments have been developed to measure *mechanical*, *artistic*, *musical*, *clerical*, and other aptitudes. Gordon (1963), Allport, Vernon, and Lindzey (1970), and others identified different sets of specific values, and designed test instruments to measure them. Bernreuter (1931), Guilford (1940), Thurstone (1953), and many others defined various sets of personality traits, and developed tests to measure them. Strong (1927) and Kuder (1939) identified various types of interests, and designed instruments to measure them. It should be noted that many of these test instruments have been updated and are still used today.

Many of the traits contained in our model are from several of these frames of reference.

Balance Theories

Largely influenced by the earlier theories of Freud, Adler, Jung, and Lewin, these more recent theories hold that behavior is initiated, directed, and sustained by a person's conscious and/or unconscious attempts to maintain some internal balance of psychological tension.

In his theory of "cognitive dissonance," for example, Festinger (1957) proposed that (a) conflicting cognitive-emotional perceptions or impressions create psychological tensions within an individual; (b) this tension (inner conflict) is unpleasant; and (c) the individual will act to relieve the tension.

Reinforcement Theories

Also called "behavior modification theories," these are largely based on behaviorists' theories and on certain accepted theories of learning. They hold that the direction and level of a person's expenditure of energy can be changed by altering either (a) the positive feedback being used to reward appropriate or desirable behavior, or (b) the negative feedback being used to punish or discourage inappropriate or undesirable behavior.

We all experience both positive and negative feedback. In general, feedback can be defined as inputs (stimuli/data) that indicate whether or not our behavior has been appropriate, correct, or desirable. Feedback can come from the environment (e.g., other people) or from inside ourselves.

As evidenced by the description above, reinforcement theory largely focuses on how to influence someone else's behavior (externally). In this context, positive and negative feedback can be described as follows:

> Forms of *external positive feedback*, which are often called "reinforcers," "positive strokes," or "warm fuzzies," include: praise; rewards; attention; acknowledgement of status; and expressions of support, approval, concern, affection, or love—among others.

> Forms of *external negative feedback*, which are often called "negative strokes," "aversive stimuli," or "cold pricklies," include: ridicule; sarcasm; derrogatory remarks; blame; criticism; reproof; reprimands; punishment; and expressions of disapproval, dislike, disdain, or rejection—among others.

The following are basic principles of reinforcement theory:

A. Any behavior pattern (response) followed immediately by positive feedback has a greater probability of being used again.
B. Any behavior pattern (response) not immediately followed by positive feedback has a lesser probability of being used again.
C. Any response followed immediately by mild negative feedback has a lesser probability of being used again.
D. Any response followed immediately by strong negative feedback leads to avoidance behavior (or perhaps to aggressive behavior).
E. Following a response with the cessation of negative feedback (which can seem like mild positive feedback) increases the probability of the response being made again.
F. To generate a positive response to a neutral object, pair or associate the neutral object with a positive stimulus (reinforcer).
G. To generate a negative response to a neutral object, pair or associate the neutral object with an aversive stimulus.

While our behavior generally elicits either positive or negative feedback from the environment, we can also experience positive and negative feedback coming from inside ourselves.

> Forms of *internal positive feedback* include: pleasure that accompanies the gratification of a need; awareness of personal progress (toward some goal or intended outcome); recognition of achievement; and awareness of a goal's attainment.

> Forms of *internal negative feedback* include: pain or discomfort due to an unsatisfied need; awareness of lack of progress; recognition of the failure to achieve; awareness that a goal has not been attained; and feelings of frustration, discouragement, or anxiety.

Instrumentality Theories

Various instrumentality theories have been advanced by Georgopolous, Mahoney, and Jones (1957), Vroom (1964), Porter and Lawler (1968), and others. These theories focus on conscious processes involved in making choices. They are based on the proposition that we purposefully decide to

engage in an activity if we perceive that it will somehow benefit us. In other words, the activity is seen as being "instrumental" in achieving some valued outcome. According to these theorists, we ask ourselves, "What's in it for me" and "Should I expend the energy or not?"

The "VIE Theory" proposed by Vroom (1964) is a good example of this thesis. "V" stands for "valence"; "I" stands for "instrumentality"; and "E" stands for "expectancy." This theory suggests that people ask themselves the following: (a) whether or not the activity has a high probability of leading to an outcome (*expectancy*); (b) whether or not that outcome will lead to other outcomes (*instrumentality*); and (c) whether or not those other outcomes have some value (*valence*).

Work Motivation Theories

Although we discuss various work motivation theories at some length in the segment of the series entitled "The Synergistic Manager," we will briefly discuss one such theory here. We do so because it contains elements of both needs theories and instrumentality theories.

Herzberg (1966) proposed a work motivation theory involving "work-related needs." The needs to which Herzberg refers are not the "internal (biological/psychological) needs or drives" referred to by Maslow, Alderfer, McClellend, and others. He differentiates between "maintenance (hygiene) factors" and "motivator factors." Both types of factors can indirectly influence people's behavior on the job by first affecting their internal motive forces (needs/drives, values, interests, goals).

> *Maintenance Factors* include: money (wages/salary/benefits); job security; working conditions; status; interpersonal relations with superiors, co-workers, and subordinates; managerial or supervisory practices; and organizational policies and administration.

> *Motivator Factors* include: opportunities for personal achievement; recognition; interesting work; responsibility (and the freedom to act independently); opportunities for advancement; and opportunities for personal growth and development.

In our view, these factors all represent instruments or vehicles through which one or more basic internal needs/drives can be satisfied. (Conversely, their absence or inadequacy can cause dissatisfaction.) Examples:

1. Having a job represents a vehicle for earning money.
2. Money, in turn, is a "medium of exchange" or instrument that can be used to (a) purchase food to satisfy hunger; (b) purchase a home to provide shelter and protection; (c) join a social club to satisfy social needs; or (d) buy a fancier car than the Joneses to partially satisfy ego needs.
3. Job security provides a continuous income, which can be used to satisfy one's own and one's family's needs over the long term.
4. Working conditions are instruments that affect one's safety and comfort on the job.
5. Relationships with other people are vehicles through which many needs can be satisfied—especially social and ego needs.
6. Opportunities for advancement are vehicles for attaining higher pay and status.

By themselves, none of these theories completely explains the wide range of human behavior. Neither do any of them encompass all the variables that influence behavior. In effect, each represents only one piece of an entire pie. For example: Some of our behavior is influenced by inborn physiological drives such as sex. Many behavior patterns are learned from and conditioned by adults as we are socialized during our childhood and teenage years. We do experience inner tension due to conflicts between our basic needs or drives and learned, socially acceptable values and attitudes. Many of our behavior patterns are influenced by emotion-producing interaction with the environment. Much if not most of our behavior is integrated within the overall context of a situation. Most of us do tend to turn either outward or inward as a result of other people's reactions to our characteristics and behavior. All of our behavior is influenced by neurological systems. We do learn or develop various attitudinal and behavioral tendencies that can be thought of as traits. Environmental factors are "instrumental" in influencing our behavior.

AN INTEGRATED BEHAVIOR MODEL

The model we have devised over the years for our own use embodies many of the theories described above. It attempts to integrate them into a single, visually-oriented frame of reference for describing, interpreting, and explaining behavioral phenomena.

The model, **Figure 1** (next page), is based on our views as of this edition. It is a conceptual diagram that has been designed to show interrelationships among neurological mechanisms, mental processes, environmental variables, and behavioral phenomena. It does not indicate where various mechanisms and areas of the brain are located, or where various integrative processes actually occur.

Neurological Mechanisms

A number of brain mechanisms and processes induce and/ or enable various aspects of human behavior.

Drive/Emotion Mechanisms

According to neurophysiologists, these mechanisms are located in the "limbic system." This system is made up of parts of the brain stem and sub-cortical (lower brain) areas.

Drive/emotion mechanisms are responsible for a variety of phenomena.

First, they are part of a neurological system that apparently operates like a switchboard or controller, starting and stopping the brain's various conscious and unconscious functions or processes. This system has been called the "reticular" or "centrencephalic" system by Jasper (1966) and by Penfield and Roberts (1966). It has also been called the "meta-organizational system" by MacKay (1966).

Second, drive/emotion mechanisms are the seat of various "basic needs and drives" that induce human behavior. It is through them that we experience, for example, hunger, thirst, and sexual urges.

In Figure 1, therefore, we show "drive/emotion mechanisms" at the base of the need/drive hierarchy. Also, we have placed them in the lower portion of the figure to indicate that their functions and processes occur at lower, less cognitive, more unconscious levels of mental activity.

Third, these mechanisms generate our emotional reactions to what we experience. As we sense and interpret what is happening both around and to us, they generate feelings such as pleasure, pain, joy, sorrow, love, and anger. (Emotion has been described as a "stirred up" state of the whole body, since emotional reactions can also trigger physiological responses such as "weak knees," a "lump in the throat," and a "gnawing in the stomach.")

Fourth, by generating emotional reactions to what we experience, these mechanisms influence the development of, and changes in, (a) attitudes, beliefs, and opinions; and (b) attitudinal characteristics such as values, interests, and personality traits. Apparently, impressions concerning our emotional reactions to what we have experienced are recorded in memory. These impressions are associated in memory with recorded perceptions of what we have experienced. As a result, impressions of our emotional reactions become attitudes toward ourselves, other people, things, and activities. Attitudes concerning what is important to us are reflected in our *values*. Attitudes toward things and activities are reflected in *our interests*. Attitudes toward ourselves, others, and our relationships with others are reflected in various types of values and in various personality traits.

Drive/emotion mechanisms play very important roles in human behavior. They not only stimulate much (if not most) of our behavior, but they also act as a "bridge" between (a) our experiences, and (b) the development of and changes in various attitudinally-oriented characteristics and behavior patterns.

Memory Mechanisms

These mechanisms not only involve memory areas, but they also involve associative areas and the limbic system. According to neurophysiologists, the limbic system is responsible for sending a signal to memory areas that "tells" them to "print" or "record" a particular stream of sensa- tions being experienced.

Psychologists refer to "short-term memory" and "long-term memory." The meaningfulness of sensations being experienced has an important influence on memory and recall. The more we have already learned (recorded in memory), the more meaning we can attach to new sensations. The more meaning we can attach to our experiences, the better we can interpret them, the better they are recorded in appropriate areas of memory, and the better they can be recalled over long periods of time. Thus, number and symbols, which have little or no inherent meaning, are generally held in memory for only short periods of time.

Figure 1: Synthesized Model of Personal and External Factors That Influence Motivation and Behavior

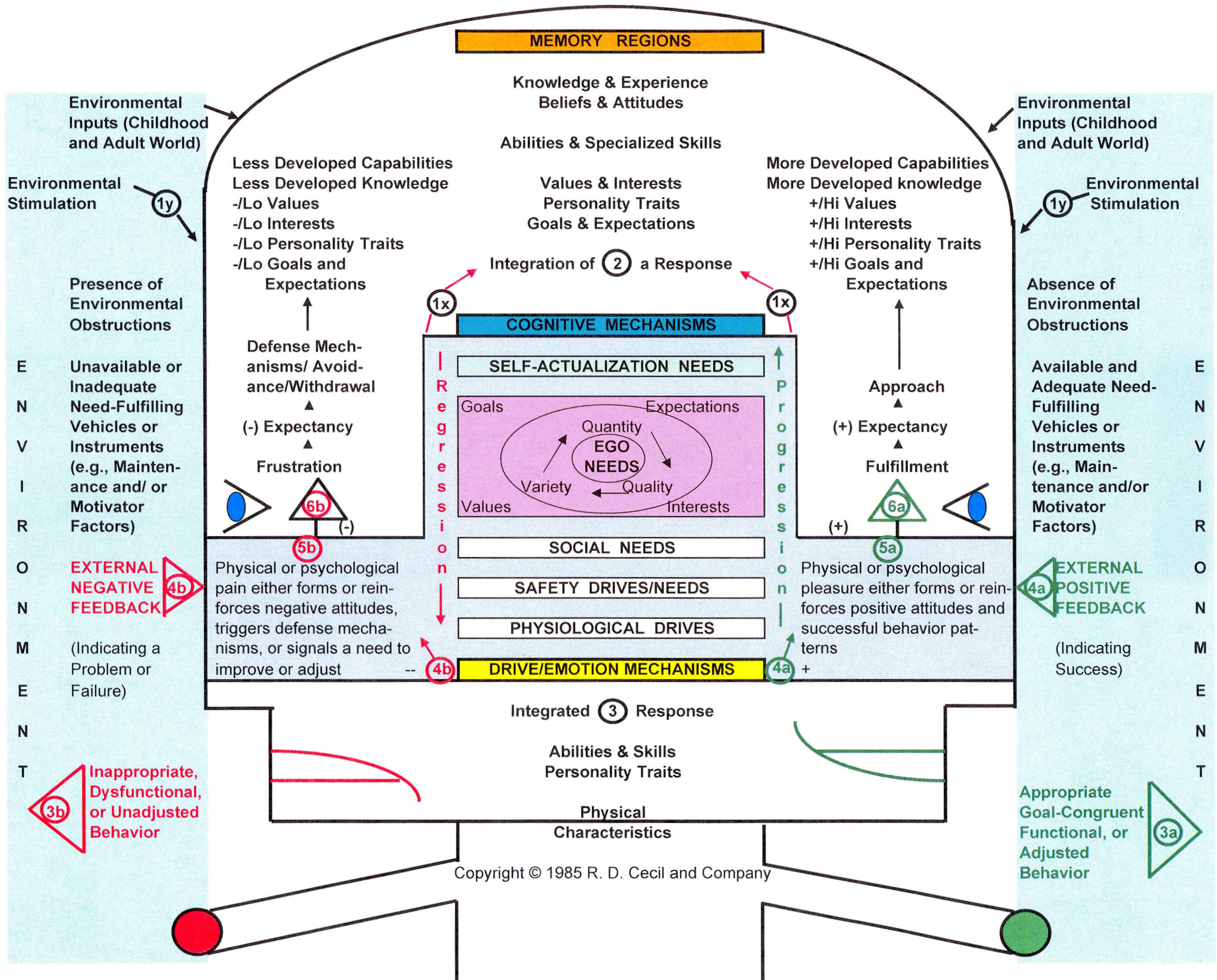

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Figure 1 indicates that the following characteristics exist in memory: knowledge and experience; various abilities and specialized skills; attitudes, beliefs, and opinions; and attitudinally-oriented characteristics such as values, interests, goals, expectations, and behavioral tendencies.

It is interesting to note that what we think, what we say, what we feel, and periods of skilled activity are not recorded well in memory—if at all. According to neurophysiologists, such experiences have never been elicited by experimental stimulation of memory areas. This is one reason why many memory experts recommend writing down, diagraming, and/or discussing our thoughts. Doing so records visual and auditory sensations in their respective areas of memory, thereby better enabling us to recall our thoughts later.

Cognitive Mechanisms

These mechanisms mostly involve interaction between associative (interpretive), reasoning, and memory areas of the cerebral cortex. (However, they often work together with sub-cortical mechanisms to perform their functions.)

Cognitive mechanisms underlie the more logical or rational aspects of our thought processes and behavior. They are responsible for our conscious awareness of ourselves and for our perception of the environment. They are also responsible for our conscious (and sometimes unconscious) formulation of responses to our environment.

Because the functions and processes attributed to these mechanisms involve both thoughts and emotions, we have placed them in the middle portion of **Figure 1**—between memory and drive/emotion mechanisms.

Groups of Specific Personal Characteristics

Our birth initiates life-long learning, conditioning, and developmental processes. Through such processes, we acquire, develop, and/or experience changes in many personal attributes or characteristics. These include: psychological needs; various abilities; specialized skills; knowledge factors; values; personality traits; interests; and goals and expectations. All of these characteristics are neurological phenomena, inasmuch as they are all represented in memory areas of the brain by organized patterns of nerve cells.

The same cannot be said about physical characteristics and various aptitudes. Obviously, physical characteristics such as facial features, physical build, and general health exist in the body rather than in memory. Aptitudes, on the other hand, are neurological phenomena. But rather than being represented by patterns of nerve cells in memory areas, they are apparently represented by inborn patterns of nerve cells in other areas of the brain—e.g., sensory, associative, and motor.

All of these specific characteristics or attributes are indicated in **Figure 1**.

Basic Needs/Drives

Very shortly we will describe five groups of basic needs or drives: *physiological*, *safety*, *social*, *ego*, and *self-actualization*. These are the most basic motivators of human beings' behavior.

Aptitudes, Basic Abilities, and Specialized Skills

As mentioned above, we are born with certain aptitudes. In general, these are inborn patterns of organized nerve cells that represent either abilities or potentials for the development of abiliities. They can relate to sensory-motor, learning, reasoning, clerical, musical, spatial, and other capabilities.

As infants, we learn basic sensory-motor abilities (such as eye-hand coordination) that enable us to focus attention on objects, sounds, and activities in the environment. Focus of attention, in turn, enables us to begin receiving sensory information and recording it in memory. As we accumulate a repertoire of knowledge and experience, we also begin to interpret (attribute meaning to) our experiences. Interpretation occurs as new sensory information is "meaningfully compared and associated" with previously recorded information.

During childhood we learn many basic abilities from parents, teachers, and other adults. Among them are arithmetic abilities and several verbally-oriented abilities (e.g., speaking, reading, and writing). The educational process itself further develops learning abilities. It also develops abilities involved in thinking logically (using *class/deductive logic* and *propositional/inductive logic*). Thinking abilities enable us to use what we have learned in order to formulate appropriate responses to our environment.

As we engage in various activities at home, at school, at work, and elsewhere, we learn specialized skills from teachers, friends, coaches, trainers, co-workers, and bosses. Several examples of these are: how to type; how to play tennis; how to maintain financial records; and how to operate a particular machine.

Whether we are using learning abilities, thinking abilities, sensory-motor abilities, or specialized skills, we are doing so in order to interact with the environment. And we interact with the environment in order to satisfy our basic needs or drives and other motive factors.

Since aptitudes are represented by organized patterns of nerve cells in various areas of the brain, and since numerous abilities and skills are represented by organized patterns of neurons in memory areas, we place all these characteristics in the top portion of **Figure 1**. We also place them at the bottom to indicate that they are used as we interact with the environment.

Knowledge and Experience

All that we sense, interpret, and record in memory constitutes "experience."

Here, however, we use the term "knowledge" to refer to recorded information of a more cognitive, factual, and less emotional nature: vocabulary; information about people, activities, places, and things; ideas; concepts; theories; methods; processes; and procedures.

On the other hand, we use the term "experience" to refer to stored information regarding (a) what has happened to us as a result of our own and others' behavior, and (b) what we have observed or have heard about happening to other people as a result of their own and others' behavior.

We use our knowledge and experience to formulate interactions with our environment—in order to satisfy needs or drives and other motive forces.

Since recorded knowledge and experience exist as organized patterns of neurons in memory areas, we place them in the top portion of **Figure 1**.

Physical Characteristics

Physical characteristics are traits such as facial features, physical build, body strength, general health, and energy level.

Since these traits are among those that people actually use when they are actively or physically interacting with the environment, and since they are physical rather than mental phenomena, we place them in the lower portion of **Figure** 1.

Values

Values reflect the relative degrees of importance we attach to various matters, approaches, or orientations involved in living.

A. "*Valued Matters*": various areas of general life activity—e.g., *economic*, *political*, *theoretical (intellectual)*, *social (altruistic)*, *religious (spiritual)*, and *aesthetic*.

B. *Interpersonal Values*: interpersonal matters and orientations—e.g., *leadership*, *support*, i*ndependence*, *benevolence*, *conformity*, and *recognition*.

C. "*Coping Values*": approaches or orientations to coping with life—e.g., *practical-mindedness*, *achievement*, *variety*, *decisiveness*, *orderliness*, and *goalorientedness*.

Early in life we learn certain "basic, general values" from parents, teachers, other adults, and peers. These values, which can differ from person to person, involve attitudes concerning right and wrong, good and bad, important and unimportant, and normal and abnormal. Such values are reflected in the specific valued matters, interpersonal values, and coping values mentioned above. As we get older, the levels of specific values can change due to influences exerted by both personal and environmental factors.

Interests

Interests reflect positive (and negative) attitudes regarding specific activities (which can involve people and objects). In general, they can be placed into the following broad vocational/avocational categories: *mechanical*, *scientific*, *computational*, *persuasive*, *artistic*, *literary*, *musical*, *social service*, *clerical*, and *outdoor*.

Our early interests are largely influenced by inputs from, and interaction with, parents, teachers, other adults, and our peers. As we get older, they are influenced by our interaction with the environment and by our other personal characteristics.

It is important to keep in mind that values and interests are neurological phenomena that have been categorized and given names. Memory areas of the brain contain organized patterns of neurons that represent impressions of our involvement in, for example, economic matters, social matters, and political matters. They also contain patterns of neurons that represent impressions of, for example, mechanical, scientific, and social service activities. Interconnected to these patterns are other patterns that represent the attitudes that we have come to associate with engaging in the various matters and activities. Thus, specific values and interests are actually complex sets of neurological patterns.

When we think about or engage in these matters, areas, or activities, we can simultaneously experience our emotion-based attitudes about them. The attitudes we have formed concerning any particular matter, area, or activity may be —

a. more positive than negative, because we have experienced more frequent and/or intense positive (pleasant) emotions in connection with it;
b. more negative than positive, because we have experienced more frequent and/or intense negative (unpleasant) emotions in connection with it; or
c. conflicting or uncertain, because we have experienced equally frequent and/or intense positive and negative emotions in connection with it.

The same can be said about our goals and expectations.

Goals and Expectations

The words "goal" and "objective" are virtually synonymous. Both refer to some future end result or outcome that is either desired or intended.

Various goals can be formulated for each of the following major areas: career, home and family, social, health, financial, spiritual, and personal growth and development.

Any goals we might have as younsters are generally the results of influences exerted by parents, teachers, coaches, counsellors, religious leaders, other adults, and, to some extent, peers. As we get older, however, we begin formulating our own goals. While these may still be influenced by our early goals to some extent, they are also influenced to an increasing degree by our own values, accumulated knowledge and experience, capabilities, interests, expectations, and even personality traits.

We have various types of expectations. Some involve what we think we deserve to have, do, or be. Some involve what we think we are likely to have, do, or be. Some involve perceptions or estimates regarding how successfully we will attain various goals.

Developing expectations involves these and other factors: (a) having some intended, desired, or expected outcome in mind; (b) recognizing obstacles and opportunities; (c) assessing capabilities for overcoming obstacles or taking advantage of opportunities; and (d) weighing the probabilities of possible outcomes that could result from taking each of several alternative courses of action. Positive expectations reflect anticipation that things are likely to occur as desired, intended, or foreseen. Negative expectations reflect anticipation that things are unlikely to occur as desired, intended, or foreseen.

In our view, values and interests, while having both cognitive (rational) and attitudinal (emotional) aspects, are usually more attitudinal than cognitive. Knowledge, experience, goals, and expectations, on the other hand, are usually more cognitive than attitudinal. Goals and expectations, however, can be more attitudinal than cognitive, especially when they reflect "wishful thinking."

Since values, interests, goals, and expectations are all both cognitive and attitudinal in nature, and since they are essentially represented in memory areas by organized patterns of neurons, we place them in the upper portion of **Figure** 1.

Personality Traits

These traits are essentially learned tendencies to behave in certain ways. It is thought that some may be inherited.

Although various sets of personality traits have been proposed, we will be describing the following specific traits: self-confidence, dominance (self-assertiveness), sociability (social introversion or extroversion), adaptability, social conscientiousness, mature relations (social maturity), responsibility, original thinking, emotional stability, self-control, and vigor or activity.

To a great extent, these traits reflect influences of values, interests, knowledge, abilities, and other individual characteristics. *Examples*:

1. High self-confidence reflects having a positive self-image and well-developed social and/or job-related capabilities.
2. High dominance reflects having a very positive self-image and a relatively high level of the political value (concern for power, authority, or control).

3. Social conscientiousness reflects having relatively high levels of the social and benevolence values.

Because these behavioral tendencies reflect cognitive-attitudinal characteristics and are represented in memory areas by organized patterns of neurons, we place them in the top portion of **Figure 1**. Because interaction with the environment normally involves these behavioral tendencies, we also place them in the bottom portion, along with abilities/skills and physical characteristics.

Dynamics of the Model

Although neurological mechanisms, certain needs or drives, various aptitudes, and certain physical traits are initially influenced by genetics, and characteristics such as values, basic abilities, interests, personality traits, goals, and expectations are initially influenced by adults to a great extent, they all constantly undergo some degree of change. Changes in their natures or levels are due to (a) our subsequent interactions with the environment, and (b) interactions among the personal characteristics themselves.

Figure 1 illustrates the following process:

1. *Stimulation*: Basic needs/drives and/or other motive factors—at whatever levels or stages of development they may be at the time—are "aroused" or "activated" by either internal or external stimuli **[1x or 1y]**. When stimulated, they motivate an individual to interact with the environment.

2. *Integration*: The individual formulates a behavioral response, which is influenced by his or her existing knowledge, experience, capabilities, needs, values, opinions, interests, personality tendencies, goals, and expectations.

3. *Response*: The individual then responds, using particular capabilities, personality tendencies, and physical characteristics—at whatever levels or stages of development they may be at the moment. The response can be appropriate, goal-congruent, or functional **[3a]**, or it can be inappropriate or dysfunctional **[3b]**.

If the behavior pattern or ability being used is appropriate, goal-congruent, adequately developed, or otherwise functional for accomplishing what was intended, if environmental obstructions either are not present or are overcome by the behavior, and if vehicles or instruments that affect need fulfillment are present and adequate, the person is likely to be successful and to experience positive feedback **[4a]**. This positive feedback can emanate from the environment (e.g., rewards, praise, or approval), and/or it can come from within the individual (e.g., satisfaction of a need, awareness of personal progress, or recognition of personal achievement).

Internal and/or external positive feedback, in turn, generate physical and/or psychological pleasure in emotion centers **[5a]**. Pleasure can then do any or all of the following **[6a]**:

a. it can reinforce the successful behavior pattern (ability, skill, personality tendency), thereby increasing the probability that it will be used again;
b. it can reinforce or increase the level of an existing positive or high self-image, or it can heighten the level of an existing negative or low self-image;
c. it can reinforce or increase the level (or the positive valence) of relatively high values and inter-ests, important goals, and/or positive expectations;
d. it can heighten the level (or decrease the negative valence) of relatively low values and interests, less important goals, and negative expectations;
e. it can create, reinforce, or increase (positive) expectations that engaging in that area or activity in the future will result in positive feedback (thereby also generating, reinforcing, or increasing the willingness to approach or get involved in that area or activity again); and/or
f. it can decrease existing (negative) expectations that engaging in that area or activity in the future will result in negative feedback (thereby decreasing the tendency to avoid involvement in that area or activity).

On the other hand, if the behavior pattern or ability being used is inappropriate, underdeveloped, unadjusted, or otherwise dysfunctional for accomplishing what was intended, if environmental obstructions are present and are not overcome by the behavior, or if vehicles and instruments that affect need fulfillment are either absent or inadequate, the individual is likely to be unsuccessful and to experience negative feedback **[4b]**. This negative feedback can emanate from the environment (e.g., disapproval, reproof, or punishment), and/or it can come from within the individual (e.g., an unsatisfied need, awareness of lack of progress, recognition of failure, or feelings of disappointment and frustration).

External and/or internal negative feedback, in turn, generate physical and/or psychological pain or discomfort in emotion centers **[5b]**. Pain can then do any or all of the following **[6b]**:

a. it can signal a need to adjust or further develop the unsuccessful personality tendency, ability, or skill;

b. it can generate a negative attitude toward the use of the unsuccessful behavior pattern (ability, skill, or personality tendency), thereby decreasing the probability that it will be used again:
c. it can reinforce or decrease the level of an existing negative or low self-image, or it can decrease the level of an existing positive or high self-image;
d. it can trigger defense mechanisms for protecting one's self-image;
e. it can reinforce or decrease the level (or increase the negative valence) of relatively low values and interests, less important goals, and/or negative expectations;
f. it can lower the level (or decrease the positive valence) of relatively high values and interests, important goals, and positive expectations;
g. it can create, reinforce, or increase (negative) expectations that engaging in that area or activity in the future will result in negative feedback (thereby also increasing the tendency to avoid or withdraw from involvement in that area or activity); and/or
h. it can decrease existing (positive) expectations that engaging in that area or activity in the future will result in positive feedback (thereby decreasing the tendency to approach and get involved in that area or activity).

In short, every time we behave, we experience varying degrees of success or failure—and varying degrees of either pleasure or pain/discomfort. As a result, we (our personal characteristics) are changed to some extent.

Notes:

PART II

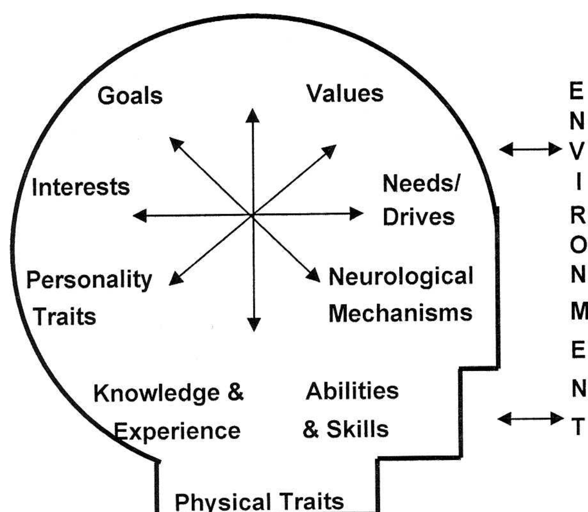
Specific Personal Characteristics

The individual is an extremely complex system of characteristics and behavioral tendencies. As each characteristic forms or develops, it becomes part of the internal system, often affecting the development of, and changes in, other traits. Thus, as shown in **Figure 2**, there are many relationships among the separate parts of the system—and one's environment. We will be discussing some of the cause and effect relationships here in Part II.

All of these personal characteristics operate with and upon each other to influence how we behave in any given situation. Behavior is the net effect of all these elements operating together as a system within the environment.

In this part we describe and discuss specific needs and drives, abilities and aptitudes, knowledge factors, physical traits, values, interests, and personality traits. As we do so, you may wish to begin filling in your Personal Inventory.

Figure 2: The Individual: A System of (Interacting) Characteristics



BASIC NEEDS AND DRIVES

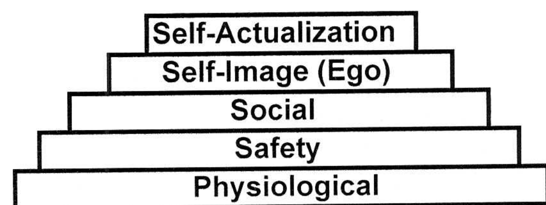
Internal motivators of human behavior include needs and drives, values, interests, goals, and expectations. The most basic of these, however, are needs and drives.

Many neurophysiologists and psychologists believe that inborn mechanisms in the brain (which we have called "drive/emotion mechanisms") are responsible for needs and drives involving, for example, hunger, thirst, sexual arousal, and interaction with other people. It is thought that these and additional needs/drives are also influenced by our social environment.

Before continuing, we should draw a clearer distinction between "needs" and "drives." Essentially, *drives* are urges to fulfill either biological or psychological needs. *Needs* become drives when they are either internally or externally stimulated and aroused. (We occasionally use the word "drives" to refer to "biological or instinctive urges," while using the word "needs" to refer to "learned or developed psychological urges.")

Maslow (1954) identified five groups of needs. He arranged these physiological, safety, social, ego, and self-actualization needs into the *Hierarchy of Needs,* portrayed as a pyramid in **Figure 3** below. (Also see **Figure 1**.)

Figure 3: Maslow's Hierarchy of Needs



Maslow's thesis concerning this hierarchy was based on two main observations. First, he observed that human beings are seldom if ever completely satisfied. When we finally get something we want, we turn to wanting something else. Second, he observed that when one of our needs is satisfied, our behavior generally becomes directed toward satisfying another. Based on these observations, he concluded that (a) unsatisfied needs are motivators; satisfied needs are not; and (b) one group of needs on the hierarchy must be adequately satisfied before the group at the next higher level can become significant motivators of behavior.

Lower-Level Needs/Drives

Physiological Needs/Drives

These include all the following: the needs for food and water, sexual gratification, rest, exercise, sensory stimulation, and shelter from the elements; and the needs to excrete waste and to minimize pain. The instinctive (genetically inherited) drives to fulfill these needs are common to all animals. Thus, they are the "purest" and most basic. Since they must be "satisfied" if human beings and lower animals are to survive, they are essentially self-preservation needs.

Physiological needs are stimulated and become drives when nervous system mechanisms sense various chemical/ hormonal imbalances or changes in the body. For example, when our stomachs are empty and/or the levels of certain nutrients in our blood get too low, hunger sensations are triggered. Physiological drives are also aroused by envi- ronmental stimuli such as the odor of food, physical pain, and the sight of a physically appealing member of the opposite sex.

Although physiological needs are at the lowest level of the hierarchy, they can be the most intense motivators of behavior when they are not satisfied. If, for example, we have not been able to eat for several days, our behavior can become almost entirely directed toward satisfying our intense hunger and relieving the physical discomfort that accompanies it. Likewise, we will be inclined to live only for water, sexual gratification, and other physiological needs when they are stimulated or aroused, but are inadequately satisfied.

When these needs are reasonably satisfied, they are no longer immediate, intense motivators, and the next higher level of needs becomes more motivating.

Safety Needs/Drives

These include the needs for protection from danger, physical harm, attack, illness, and deprivation. Since these needs must be satisfied if human beings and lower animals are to survive, they, too, are "self-preservation needs."

Such needs are generally aroused and become drives when we and other animals perceive unfamiliar and/or irregular environmental stimuli—e.g., a sudden bright (or dim) light, a sudden loud noise (or sudden quiet), or a sudden motion (or sudden stillness). In human beings, who have the most well-developed cerebral mechanisms for perception and awareness, safety is a "psychological need" as well as an instinctive drive. Since we can be cognitively aware of whether or not we are safe, we "need" to know that we are, in fact, safe. When we feel safe, we experience psychological pleasure in the form of a sense of physical well-being. When we do not feel safe, we experience psychological discomfort in the form of fear.

Safety needs, sometimes called "security needs," should not be confused with the needs for job security, a steady income, and safe working conditions. As we pointed out in Part I, these and other factors are vehicles or instruments that affect the fulfillment or lack of fulfillment of "basic internal needs."

Social Needs/Drives

According to Maslow, when physiological and safety needs have been fulfilled, social needs become the predominant motivators of behavior.

These include the needs to affiliate or associate with others, to obtain their approval or acceptance, to have a sense of belonging, and to give and receive friendship and love.

These needs are more complex in human beings, also. As we mentioned in Part I, lower animals display instinctive, genetically inherited "drives" to form groups and work together to cope with their environment. Humans undoubtedly have these "drives," too. But we also have associated "psychological needs." These are a function of our awareness (cognition) that interaction with other people is necessary in order to satisfy various needs or drives and other motives. This is particularly true in our specialized society, where people have come to depend on each other for goods and services.

Relationships with other people are vehicles or instruments that affect the fulfillment or lack of fulfillment of social needs.

In our view, lower animals' needs/drives are instinctive. Humans' needs and drives, on the other hand, are different. Our physiological, safety, and social needs do have certain instinctive, biological aspects. But they also have aspects that (a) are learned, conditioned, or developed, (b) involve various degrees of cognition, and (c) are more psychological than biological in nature. Both aspects, however, are "motive forces" that push or "drive" us into interacting with our environment.

Because these lower-level needs and drives involve electro-chemical reactions within and between nerve cells, they are actually neurological phenomena. Consequently, calling them "needs" and "drives" is obviously simplistic. Nevertheless, we think that categorizing these phenomena, calling them "needs" and "drives," and thinking about them in these terms is very useful. The same applies to higher-level needs and drives.

Higher-Level Needs/Drives

Ego Needs/Drives

According to Maslow, when physiological, safety, and social needs have been reasonably satisfied, ego needs become more intense motivators. He identified two types of egoistic needs.

First are those related to one's *self-esteem* — the needs for self-confidence, an identity or self-image, independence, power, influence over others, knowledge, competence, and personal achievement. Second are those related to one's *reputation* — the needs for status, a (good) reputation, prestige, and others' approval, recognition, respect, trust, and admiration.

Maslow and several others have observed that, because most U.S. citizens enjoy a reasonably high standard of living, our physiological and safety needs are rather adequately satisfied. Social needs also appear to be reasonably satisfied in most Americans. Therefore, Maslow and others have estimated that ego needs are satisfied in only about 3% of our society, making these needs the most intense motivators of most people's behavior. According to Maslow, this means that most people's behavior is primarily directed toward enhancing and protecting their self-esteem and reputation.

We try to enhance our egos (improve our self-images) in a variety of ways. Some are more positive or constructive than others.

Functional Ego-Enhancement Measures

In addition to being positive or constructive, these measures generally do little if any harm to other people. Thus, we believe that individuals should maximize their use.

A. *Personal Development*: Acquiring or developing the knowledge, attitudes, and capabilities that enable an individual to (a) cope successfully with life and the environment, (b) become more self-actualized, and (c) behave in a less egocentric (self-centered) manner.

B. *Association*: Associating with those who (a) can contribute to one's personal development, and (b) are inclined to be understanding, respectful, helpful, benevolent, and supportive.

C. *Creative/Innovative Self-Expression*: Expressing one's thoughts, ideas, or feelings in a constructive, creative, innovative manner. Also, "giving birth" to an idea, insight, or concept that, in effect, is "one's own baby."

D. *Problem-Solving*: Confronting and solving problems so that they will not recur, get worse, or cause additional problems.

E. *Striving to Achieve or Succeed*: Putting forth the necessary effort and using one's skills to the fullest in order to be successful or to achieve something worthwhile.

F. *Behaving Maturely*: Behaving conscientiously, unselfishly, respectfully, benevolently, tolerantly, developmentally, and supportively toward others.

Dysfunctional Ego-Enhancement Measures

These measures are essentially aimed at what we call "self-superiorization" (self-elevation or self-exaltation). In general, they enhance one's ego at the expense of others' feelings and egos. Thus, we believe that their use should be avoided or suppressed.

A. *Identifying*: Identifying/associating with those who are more successful, liked, respected, or admired than oneself. (Although this usually does no harm to others, it can be somewhat dysfunctional. It does not necessarily result in personal development and an improved ability to cope.)

B. *Criticizing/Ridiculing/Blaming*: "Putting other people down" in order to "put oneself up" (feel superior to others in some respect).

C. *Dominating/Intimidating*: Using power, authority, or influence in order to control others and feel superior to them.

D. *Manipulating/Using*: Manipulating, using, or taking advantage of others in order to feel more powerful, competent, or shrewd than they.

E. *Unfairly Outcompeting Others*: Becoming more successful than others by deceiving them, obstructing their activities, undermining their efforts, subverting their working relationships, or otherwise hampering their performance.

F. *Getting "One Up"*: Acquiring and/or talking about having something more or better than others have — e.g., a larger house, a faster car, a fancier boat, a better job, a higher score, more knowledge or experience, or travel to more places.

G. *Applying Double Standards*: Applying different standards to oneself and others in order to make oneself come out ahead.

H. *Hurting Others*: Consciously or unconsciously hurting others in order to feel superior to them (less vulnerable than they).

Ego Defense Mechanisms

When people experience negative feedback, they often use various psychological defense mechanisms to protect their egos (self-images). Using several of these mechanisms can hurt other people.

A. *Suppression*: Attempting to hide a personal weakness or failure from others. Also, trying to keep others from finding out that one has made a mistake or caused a problem.

B. *Denial*: Denying (either to oneself or others) that one has made a mistake, has a problem, or has caused a problem.

C. *Projection*: Blaming others instead of oneself for a mistake or problem.

D. *Rationalization*: Justifying one's shortcomings, mistakes, or problems with "reasons" (excuses) that help keep one's self-image intact.

E. *Compensation*: Engaging in alternative activities, wherein one is more capable of being successful and generating self-image-reinforcing positive feedback.

F. *Sublimation*: Unconsciously blocking psychologically painful experiences from rising to the level of conscious awareness.

G. *Repression*: Consciously pushing negative emotions and thoughts out of one's mind.

H. *Identification*: Identifying and/or associating with those who are more successful, liked, respected, or admired than oneself.

I. *Fantasizing*: Substituting daydreams or "wishful thinking" for reality.

J. *Regression*: Reverting to behavior patterns involved in more ego-satisfying situations or circumstances of the past (e.g., "regressing to child-like behavior").

K. *Aggression*: Taking out one's frustrations, anxieties, resentments, or anger on other people.

L. "*Undoing*": Trying to "right the wrong" and/or "doing penance" by causing personal suffering.

At one time or another, we all use these defense mechanisms —sometimes consciously, but more often unconsciously. However, frequent use of one or more of these mechanisms can indicate that an individual (a) is experiencing psychologically traumatic problems or situations; (b) is not coping well with the environment and the problems being experienced; (c) is not receiving adequate support and positive feedback from others; (d) has a very unhealthy self-image; and/or (e) may need professional help.

In our view, ego needs are not instinctive. We view them as being learned psychological needs involving cognitive-attitudinal impressions of ourselves, the meaningfulness of our lives, and our relationships with people, things, and activities in the environment. In other words, they are essentially "needs" to maximize positive feedback and minimize negative feedback regarding our ability to interact successfully with the environment.

The (positive or negative) feedback we receive from other people does two things. First, it either confirms or contradicts how we see ourselves. Second, it tells us how others see us (what our reputation is). *Positive feedback* reinforces impressions of SELF as (a) being knowledgeable, competent, creative, and self-sufficient; (b) having self-worth; (c) being able to control or at least influence the environment; (d) being able to achieve; and (e) being able to obtain respect, admiration, recognition, and status from others. On the other hand, *negative feedback* tells an individual that positive (or flattering) impressions of self may be incorrect.

Our early self-images or identities tend to be vague, and are largely influenced by adults' inputs. However, as we interact with the environment during childhood and teenage years, we develop various inputs for formulating our own personal identities. The major inputs are (a) a vocabulary, (b) a growing repertoire of knowledge and experience concerning people and their behavior, and (c) the ability for "class (deductive) logic." Together, these inputs enable us to do the following:

a. describe ourselves and others in terms of various human characteristics—e.g., size, strength, intelligence, attractiveness, honesty, benevolence, friendliness, conscientiousness, amount of power or influence, degree of masculinity or femininity, and degree of financial success;
b. compare and contrast ourselves with others in relative terms;
c. identify similarities and differences between ourselves and others; and
d. form our own personal identities or self-images (*relative to others*), which we begin trying to protect and enhance.

In our view, values, interests, goals, and expectations are directly related to ego needs. We have concluded that people's ego needs revolve around their most important values, highest interests, main goals, and most positive expectations. (Indirectly, they also revolve around people's most well-developed capabilities. People generally value or are interested in those areas and activities in which they are most capable of generating positive feedback). *Examples*:

1. If economic and practical matters are most important (most highly valued), then one's self-image and reputation needs are most likely to revolve around one's practicality, business acumen, and financial or material success.

2. If political and leadership matters are most important, then one's self-image and reputation needs are most likely to revolve around one's position and power, authority, or influence over others.

In effect, ego needs and ego-related motive factors are on separate sides of the same coin. As we mentioned earlier, organized patterns of neurons in memory areas represent (a) our cognitive impressions regarding each area of life activity, and (b) our associated attitudes regarding each area. While inteconnected with each other, these patterns are also interconnected with patterns representing (a) our cognitive impressions of self, and (b) our associated attitudes regarding self. Consequently, any feedback we receive concerning behavior in a given area affects self-image-related (ego-related) impressions and attitudes as well as value-, interest-, and goal-related impressions and attitudes.

As shown in **Figure 1**, therefore, ego needs (and related motives) are the central or primary motivators of most people's behavior. Two phenomena occur as a result: First, we tend to approach or involve ourselves in those matters, interest areas, and goals that are high because we have come to expect positive, self-image-reinforcing feedback in connection with them. Second, we tend to avoid those matters, interest areas, or possible goals that are relatively low because we have come to expect negative, self-image-threatening feedback in connection with them.

Progression from lower-level needs to the ego needs level is a function of two main factors: (a) the development of a personal identity or self-image; and (b) the adequate or regular fulfillment of lower-level needs.

Whereas lower-level needs can be rather easily, regular- ly, and adequately satisfied, ego needs cannot. *Examples*:

1. When people who are higher than average in the economic value have attained some degree of economic success (and have acquired some amount of money, material things, and status), they have a tendency to want more economic success (more money, things, and status). Even if such people attain substantial economic success and their ego-related economic needs/motives become more or less satisfied, they may use whatever wealth they have to attain power or influence. If their ego-related political needs/motives ever become satisfied, they can turn to other ego-fulfilling vehicles or areas.

2. When people who are higher than average in the political value gain a higher position (or more power or influence), they have a tendency to want an even higher position (or even greater power and

influence. Even if such people attain substantial power and their ego-related political needs/motives become more or less satisfied, they may use whatever power, influence, or position they have to attain greater economic success. If their ego-related economic needs/motives ever become satisfied, they can turn to ego-fulfilling activity in other areas.

For many if not most people, therefore, ego needs are virtually insatiable. The following is a common scenario: When we receive ego-enhancing positive feedback in a certain area, we want “more” (quantity). When “more” becomes routine, non-stimulating, unchallenging, or boring, we want “better” (quality). When “better” becomes non-stimulating or unchallenging, we want something “different” (variety).

Figure 1 depicts these phenomena as a merry-go-round or whirlpool revolving around ego needs and related motives. Many people seem unable to get off this merry-go- round and become “self-actualizing.” Instead of progressing up the hierarchy, they tend to “go around in circles” as they attempt to satisfy ego needs.

Although ego needs are not “instinctive/biological drives,” they are nonetheless powerful motive factors having the force of drives. In fact, there are many examples of people foregoing fulfillment of lower-level needs while in pursuit of ego fulfillment.

Self-Actualization Needs

If and when ego needs have been satisfied, self-actualization needs become more significant motivators.

These include the needs for developing one’s potentials to the fullest, and becoming what one has the potential to become.

As we mentioned earlier, Maslow believed (and others still do) that self-actualization needs lie dormant in most people. This is mostly because lower-level needs—especially ego needs—are seldom fully satisfied.

Self-actualization needs can be explained in two ways. They can be either (a) a separate set of psychological needs above the ego needs level, or (b) another subclassification of ego needs (along with self-esteem and reputation needs). In the latter case, it may be that developing our potentials and becoming what we have the potential to become are “means” or “personally-applied vehicles/instruments” for attaining ultimate ego fulfillment. As we pointed out earlier, behaving successfully and obtaining positive feedback in various areas is partly a function of developing functional, appropriate behavior patterns. Developing ourselves to the fullest, therefore, would enable us to be more successful and to obtain more ego-enhancing positive feedback. Frankly, we are not certain which explanation is the most accurate. At present, however, we lean toward the latter.

Whichever the case may be, it is our view that one progresses upward to the level of self-actualization needs because of (a) adequate fulfillment of ego needs, and (b) arrival at certain highly cognitive insights concerning oneself, one’s relationships with the environment, and the meaning of one’s life.

In general, the following cognitive insights are largely a function of maturity, accumulated knowledge and experience, and wisdom:

a. that seeking more, better, and different in order to be happy is a merry-go-round—an endless chase;
b. that the quality and meaningfulness of life do not necessarily depend on traditional signs of success such as money and power, and that one may have to turn to other areas of life for ultimate fulfillment;
c. that becoming what one has the potential to become, doing what one has the potential to do best, and living up to one’s own high standards and expectations are more meaningful and ultimately fulfilling than being, doing, or becoming what others expect;
d. that having to deal with inner tensions created by constantly attempting to protect and enhance one’s ego is neither necessary nor worth the psychic energy;
e. that one is “OK,” that others are “OK,” and that one need not compare oneself with others and put them down in order to feel OK;
f. that one is “OK,” but not perfect, and that one has potentials that can be further developed and utilized;
g. that “competing with oneself,” becoming the best one can become, and doing the best one can do generates less anxiety and more fulfillment than competing with others (and often doing harm to them);
h. that trying to fulfill the dreams and fantasies of youth may not be realistic and/or desirable in order to be happy or content; or
i. some combination of the above.

Additional Perspectives on Basic Needs/Drives

Psychological Bases for Motivation

In general, the *psychological bases for motivation are* (a) the preference for or the expectation of pleasure, and (b) the avoidance or minimization of pain. Fulfillment of physiological and safety needs results in physical pleasure. Lack of their fulfillment usually results in physical pain or discomfort. On the other hand, fulfillment of social, ego, and self-actualization needs results in psychological pleasure. Lack of their satisfaction usually results in psychological "pain" or discomfort. Therefore, it is understandable that physical needs, especially when they are (painfully) unfulfilled, will usually take precedence over more psychologically-oriented needs. As we said earlier, however, there are exceptions. For example, the fulfillment of lower level needs may be sacrificed in order to satisfy higher-level needs, especially when higher-level needs (e.g., ego needs) are particularly intense.

Progression and Regression on the Hierarchy

In **Figure** 1, we indicate progression up the hierarchy with an upward-pointing arrow on the right side. Upward progression to the next higher level or group of needs occurs when the previous level is being (or has been) adequately satisfied. Adequate satisfaction of any particular level of needs involves the following:

a. the absence of environmental obstacles to the fulfillment of those needs;
b. the availability and adequacy of vehicles or instruments that affect fulfillment of those needs;
c. the development and use of the behavior patterns (abilities, skills, physical traits, and behavioral tendencies) necessary for fulfilling those needs; and
d. as a result of a through c, the receipt of positive feedback, which generates pleasure and indicates satisfaction of those needs.

As mentioned earlier, progression from lower-level needs to the ego needs level also involves the development of a personal identity or self-image. Similarly, progression from the ego needs level to the self-actualization level also involves the development of certain highly cognitive insights regarding self, others, and life in general.

Also in **Figure 1**, we indicate regression down the hierarchy with a downward-pointing arrow on the left side. Regression from higher-level needs to lower-level needs can be due to a variety of factors and phenomena. *Examples*:

1. Natural disasters, fires, and crime waves can tend to "pull people down" to the physiological and safety levels.
2. Failing health and serious illnesses cause many older people to regress to the physiological level.
3. Experiencing negative feedback (due to environmental obstructions, dysfunctional behavior, and/or the absence or inadequacy of need-related vehicles/ instruments) can also cause regression to lower-level needs. For instance: Those who have lost their jobs often regress to physiological and safety levels. Many female workers, when unable to fulfill ego needs on the job, tend to "fall back" on affiliating with co-workers and satisfying their social needs.

Age, sex, cultural background, education, abilities, values, economic conditions, job status, and many other factors influence the relative intensities of people's basic needs and drives. The few examples cited above clearly show that the intensities of individuals' needs/drives are different—for different reasons. The intensities can also be different at different times in individuals' lives.

McClelland's and Alderfer's Needs Systems

As mentioned in Part I, McClelland proposed a frame of reference involving the needs for affiliation, power, and achievement. In our view, these needs can be associated with various needs on Maslow's hierarchy. The *need for affiliation* is a social need. The *need for achievement* is one of the ego needs. (Others suggest that there may be a fine line between the "need for achievement" and the "fear of failure.") The *need for power* can be associated with sev- eral ego needs (e.g., the needs for self-esteem, power, an identity, status, and others' respect). We will further dis- cuss power, affiliation, and achievement motives in sec- tions of this segment that deal with values and personality traits.

As also mentioned in Part I, Alderfer suggested that we have existence, relatedness, and growth needs. In our view, these, too, can be associated with needs on Maslow's hierarchy. *Existence needs* can be associated with physiological and safety needs. *Relatedness needs* can be associated with social and ego (self-esteem and reputation) needs. *Growth needs* can be associated with self-actualization needs.

Restraint of Self-Centeredness

The basic needs and drives that motivate our behavior can all be considered "self-centered." We might even say "selfish." Why is it, then, that human beings are capable of seemingly "selfless" acts?

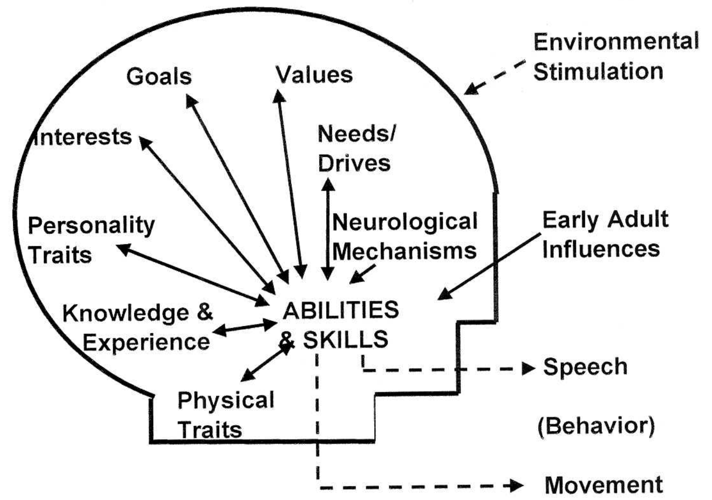
People get along better when they can suppress their own drives and motives for the sake of others' feelings and well-being. Unselfish behavior is normally considered "good," and is rewarded with praise and other forms of positive feedback. On the other hand, selfish behavior is generally inconsistent with social norms, is considered "bad," and is punished with reproof, spankings, jail, ostracism, and various other sanctions that constitute negative feedback.

Through both positive and negative feedback, observation of adult behavior, and other environmental influences such as moral and religious training, an individual learns normative social values (what is "right" and "wrong" and how to behave in a socially acceptable manner). This learning process, which is emphasized by adults during child-hood and teenage years, is called either "socialization" or "social conditioning." (Of course, what is learned can differ from individual to individual because of different backgrounds, environments, education, and experience.)

Therefore, behavioral tendencies motivated by self-centered motives are tempered to a greater or lesser degree by an individual's learned value system.

[If you are filling in the Personal Inventory, take the above discussion into account, assess your own level of each group of needs/drives, and record it on the inventory format. These judgments can be very difficult to make, because they are highly subjective. Following several suggestions should help: (1) Start with physiological needs and work up the hierarchy. (2) If you feel that a group or level of needs is reasonably or adequately satisfied, it is probably not an intense motivator and should be assessed toward the lower end of the scale. (3) If, in proceeding up the hierarchy, you determine that a level/group of needs is not particularly satisfied, it should probably be assessed as the most intense (the highest on the scale). (4) If there is a higher-level set of needs remaining, it should be assessed as being lower in intensity, since a previous, inadequately fulfilled group/level of needs is more intense.]

Figure 4: Cause/Effect Relationships Between Abilities and Other Characteristics



ABILITIES AND APTITUDES

Various aptitudes, general abilities, and more specialized skills enable us to interact with the environment in order to satisfy whatever is motivating us to behave.

Research has shown that (a) we inherit "potential capacities" for various mental and physical abilities, but (b) our actual levels of most abilities primarily depend upon the extent to which they have been learned or developed.

The early development of our various abilities and skills is mostly influenced by adults. As we grow older, developmental processes are increasingly influenced by our own interests, values, personality traits, goals, and other characteristics (as indicated in **Figure 4**). These characteristics can either motivate or enable our successful participation in various activities. In turn, taking part in activities generally results in further development of the abilities involved.

This section describes the following abilities and aptitudes: academic intelligence; social insight; mechanical visualization; mechanical comprehension; clerical speed and accuracy; physical coordination; reading; and communica-tion. It also describes "abilities" such as vocabulary, creativity, and leadership. (Because there are so many specialized skills, they will not be described here.)

As these various abilities develop, they in turn can influence the development of and changes in knowledge, experience, personality traits, values, interests, goals, and even physical traits. These relationships, also indicated by arrows in Figure 4, will be discussed in subsequent sections.

Basic Aptitudes/Abilities

Academic Intelligence

Basically, this is the ability that enables people to understand, learn, and think about things having either a concrete (visual), conceptual (verbal), or abstract (mathematical) nature.

People who are relatively high in academic intelligence can easily understand, quickly learn, and effectively think in terms of, all the following types of constructs: (a) *concrete constructs* involving objects, activities, and visual images; (b) *verbally-oriented constructs* such as complex ideas and concepts; and (c) *abstract constructs* such as equations involving numbers and symbols. In addition, they are likely to have a well-developed vocabulary that covers many areas of knowledge. As a result, such people tend to be successful in academic pursuits. Also, they are inclined to be analytic and seem to adapt best to jobs that present new problems and learning situations.

Conversely, those relatively low in this ability are less capable of dealing with matters that are highly conceptual, verbally-oriented, or abstract. They tend to understand, learn, and think in more concrete, factual, or visually-oriented terms.

Individuals can be born with high potential intellectual capacities, but if their learning and thinking abilities have not been fully developed, the full power of their potential cannot be realized. Individuals' verbal and arithmetic scores on academic intelligence tests, therefore, indicate the extent of their mental development, not necessarily their mental potential.

One can be very mechanically oriented—or work very well with people—and still be relatively low in this ability.

A relatively high level of academic intelligence is desirable in fields such as management, science, medicine, law, sales of complex products, higher education instruction, and other professional occupations. It is not as necessary in, for example, clerical, mechanical, artistic, and physically- or manually-oriented endeavors.

The average person is at the 50th percentile ("by definition"). The average college graduate ("C" student) is at about the 83rd percentile (or "high"). The average professional (e.g., lawyer, professor, or top level executive) is at about the 95th percentile (or just into the "very high" range).

Vocabulary

Vocabulary is basically the knowledge of words, their meanings, and how they can be used in various contexts.

This knowledge is not really an ability per se, but it is directly related to academic intelligence and the abilities to read and communicate. The greater the breadth and depth of people's vocabularies, the better their abilities to understand and learn things of a verbal nature. Also, the more extensive their vocabularies, the greater the specificity and detail with which they can define, describe, compare, contrast, and relate things such as objects, activities, ideas, and concepts. (The abilities to define, describe, compare, contrast, and relate things are the essence of logical thinking.) Furthermore, the larger people's vocabularies, the more effectively they can communicate with others. Thus, a knowledge of words not only underlies individuals' intellectual capabilities to a large extent, but it also contributes to the power and effectiveness with which their intelligence can be used.

An extensive or "high" vocabulary is desirable in, for example, business executives, professors, and those in literary occupations.

Social Insight

Sometimes called "social intelligence," this is the ability to observe, understand, and judge social behavior. It contributes to one's ability to behave with understanding, sensitivity, flexibility, fairness, tolerance, and tact.

Since social behavior is highly contextual and subjective, people's level of social insight depends upon at least three basic factors. First, the more social interaction individuals experience, the greater their insight tends to be. Second, the higher people's level of academic intelligence, the higher the level of this ability—inasmuch as the "why" of people's behavior is not always concrete and must be thought about in more conceptual (verbally-oriented) terms. Third, the more extensive people's vocabulary of psychological and human relations terms, the greater the depth with which they can observe, understand, and judge their own and others' behavior.

Nonetheless, being relatively high in social insight does not necessarily mean that one will relate well with others. Neither does being relatively low necessarily mean that one cannot relate well with others. Social understanding is one thing—actual relationships with people can be another. Needs and drives, "valued matters," interpersonal values, and personality traits also influence how well a person relates with others. In addition, they influence the amount and frequency of one's social interaction. In fact, these motive-attitudinal characteristics can be the overriding influences on the effectiveness of one's relationships with others.

Relatively high social insight is desirable in social workers, leaders, managers, supervisors, salespersons, politicians, and parents—i.e., in anyone who has a need for interpersonal awareness, understanding, and sensitivity.

Mechanical Visualization

Sometimes called "spatial thinking," this is the ability that enables one to visualize and manipulate objects, parts of objects, or other visual arrangements in space. It contributes to mechanical comprehension and is believed to be related to the visual aspects of academic intelligence.

Mechanical visualization is an ability in which people differ widely. It appears to be a "pure aptitude"—that is, the level of one's capacity is apparently inborn and cannot be increased significantly by training or experience involving visual arrangements.

A relatively high level of this ability is desirable in mechanically-oriented jobs and in those aspects of engineering and architectural jobs that involve design and drafting. It is also desirable in some artistic occupations and in some jobs involving inspection of objects, parts, or materials.

Mechanical Comprehension

Often called "mechanical intelligence," this is the ability to comprehend and solve mechanical types of problems. The level of this ability is influenced by one's (a) knowledge of mechanical principles, and (b) experience applying mechanical principles and working with mechanical objects.

Although mechnical comprehension is believed to be related to academic intelligence, a person can be considerably higher in one ability than the other.

A relatively high level of mechanical comprehension is desirable in farmers, inventors, engineers, surgeons, dentists, repairmen, machinists, and mechanics. It is not as necessary for most researchers, writers, artists, lawyers, teachers, accountants, clerks, secretaries, and social workers.

Engineers are generally higher in this ability than people in other occupational groups. Because males (traditionally) tend to receive more mechanical training and usually have more mechanical experience, they are generally higher than most females.

Clerical Speed and Accuracy

Often called "perceptual speed and accuracy," this is the ability to work quickly and accurately with details. Actually an aptitude, it involves shifting focus of attention quickly and accurately from one word, number, graphic symbol, or object to another. Thus, it should not be confused with secretarial skills such as typing and taking dictation.

Successful office workers generally score high on clerical speed and accuracy tests. However, clerical training and experience apparently do not increase one's level of this aptitude.

A relatively high level of perceptual speed and accuracy is desirable in office personnel, office managers, accountants, auditors, financial analysts, and executives. It is also desirable in those who must quickly and accurately shift their attention from one detail to another as they inspect objects, parts, or materials.

Physical Coordination

The coordinated movement of fingers, hands, arms, legs, and other parts of the body is learned. Good physical coordination of large muscle groups (arms, legs) is necessary in athletic and other physically-oriented endeavors. Good coordination of small muscle groups (fingers, hands) is desirable in activities involving manual dexterity—such as assembling parts, sewing, or playing a musical instrument.

Combinations of Various Abilities and Other Traits

Reading

Reading involves perceiving words and comprehending the ideas, images, or feelings they convey.

Reading ability is generally measured in terms of three parameters: (a) reading speed; (b) comprehension of the material; and (c) retention of the facts, ideas, images, or other impressions being conveyed by the material.

Comprehension (interpretation) of reading material is affected by one's academic intelligence, vocabulary, existing knowledge and experience, motivation to comprehend and learn, and concentration (which is mostly a function of motivation level). *Level of retention* is largely influenced by comprehension and by the level of motivation to learn and retain information—among other factors. *Effective reading speed* (the speed at which one can perceive and effectively interpret written material) is influenced by eye movement habits and by factors associated with mental interpretive processes (e.g., academic intelligence, vocabulary, and existing repertoire of knowledge and experience).

Relatively high reading speed and comprehension are desirable in students, researchers, businesspeople, lawyers, and any others whose endeavors require processing or learning large amounts of information.

[To determine your approximate reading speed, simply read material of average difficulty (e.g., a popular novel or a newspaper article) for one minute at your normal speed. Then count the number of words you read in that time. Reading 200 words per minute (w.p.m.) is considered "poor" or "low"; 260 w.p.m. is considered "good" or "average"; 400 w.p.m. is considered "very good" or "high"; and up to or exceeding 900 w.p.m. is considered "excellent" or "very high."]

Communicative Abilities

The ability to communicate is actually a combination of verbal and non-verbal abilities.

Verbally-oriented abilities are involved in expressing verbal constructs both comprehensibly and persuasively. Several of the most important of these are: (a) vocabulary and verbally-oriented thinking abilities—to determine what to say and how to say it (in either speech or writing); (b) an understanding of the listeners or readers—to determine how something should be said or written; and (c) speaking and writing abilities—for actually transmitting what one intends to "get through" to the listener or reader.

Non-verbal abilities are involved in expressing attitudes, feelings, and shades of meaning without using words. Non-verbal communication is accomplished through the use of, for example, gestures, body movement, facial expressions, eye movement, voice inflection, and the volume and tone of vocalized sounds.

Relatively high levels of communicative abilities are desirable in those who either want or need to influence their environment. Everyone must have these abilities to a greater or lesser degree, because we all must communicate effectively with others if we are to fulfill needs and attain goals.

Creativity

Being creative is not simply a matter of having creative, imaginative, or inventive mental abilities. Neither is it simply a matter of having a tendency to be thoughtful, curious, and creative (or "original thinking," a personality trait). In general, creativity is a matter of having both the abilities and the motivation to apply them. Thus, creativity is not an ability per se. It is actually a combination of certain characteristics operating together.

In problem-solving professions such as research and management, creativity generally involves the "imaginative association" of various facts, concepts, principles, or ideas—the result being, for example, some new insight, concept, idea, solution, plan, or product. The principal abilities involved here can be academic intelligence and/or social insight. The motivation to use these abilities creatively can be attributed to needs/drives, values (e.g., the social, economic, and/or theoretical values), interests, goals, and/or the tendency to be original thinking. These motives can be stimulated by an awareness of (a) a need to solve a problem, or (b) an opportunity to improve something.

In mechanical occupations, creativity generally involves the "imaginative association" of mechanical information, principles, and experience—the result being, for example, a new arrangement of parts, a new variation on a mechan-ical principle, or an improved mechanical process. Among others, the abilities involved here can be mechanical visualization and mechanical comprehension. The motivation to use these abilities creatively can be attributed to needs/drives, values (e.g., the economic, practical-mindedness, and/or theoretical values), mechanical interests, goals, and/or the tendency to be original thinking. Here again, these motives can be stimulated by an awareness of problems or opportunities.

In the arts, creativity is manifested in new visual arrangements, sound patterns, or movements that appeal to aesthetic tastes. The abilities involved can include spatial thinking, physical coordination, musical abilities, and var-i-ous other abilities that can be utilized in an artistic context.

Here, too, needs/drives, values (e.g., the aesthetic value), artistic interests, and/or the tendency to be original thinking can all contribute to the motivation to use artistic abilities creatively.

We might add that, even though someone's "new" idea has already been thought of by someone else, he or she can nonetheless be considered "creative" if the idea was arrived at or conceived independently and without knowledge of the other person's idea.

Leadership and Managerial Capabilities (and Other Traits)

Leadership is not simply a matter of having capabilities that enable one to lead. Neither is it just a matter of having certain needs/drives or values that motivate one to lead. Rather, leadership is a combination of many traits. The same applies to management. Needs/drives, abilities, specialized skills, knowledge, experience, physical traits, values, personality traits, goals, and expectations all influence leadership and managerial behavior. Of these characteristics, only certain physical traits are inborn. All the rest are learned or developed. The extent to which they are learned or developed is influenced by family, social, and organizational environments and by interactions among the characteristics themselves.

We believe that, to be most effective, leaders or managers should be relatively high in two types of capabilities:

Task-Related Capabilities include: (a) knowledge of one's own and subordinates' jobs; (b) general and specialized abilities that relate to the technical, functional, or professional aspects of one's own and subordinates' jobs; (c) job--related information (data, methods, procedures) and experience; and (d) certain behavioral tendencies.

People-Related Capabilities include: (a) social insight; (b) a knowledge and understanding of personnel's capabilities, motives, and personalities; (c) communicative skills; (d) certain behavioral tendencies; and (d) other inputs involved in getting things done through people.

The levels of various needs/drives, values, attitudes, and personality traits also influence managerial and leadership effectiveness. These motive and attitudinal traits can also be placed in two categories:

Task-Oriented Motive/Attitudinal Traits such as (a) ego needs; (b) various work-related values (e.g., the economic, practical-mindedness, political, leadership, and achievement values); and (c) personality traits such as self-assertiveness and responsibility.

People-Oriented Motive/Attitudinal Traits such as (a) social needs; and (b) various values and personality traits that underlie or reflect concern for people's welfare, development, feelings, and fulfillment (e.g., the social, benevolence, and religious values; and personality traits such as self-control, social conscientiousness, adaptability, and social maturity).

[Now that you have read the entire section on abilities and understand how some contribute to others, assess your level of each (relative to a general population) and record it on the first page of the Personal Inventory Format.]

KNOWLEDGE AND EXPERIENCE

Knowledge and experience represent our store of information concerning ourselves and our environment. Both are acquired as we interact with the environment.

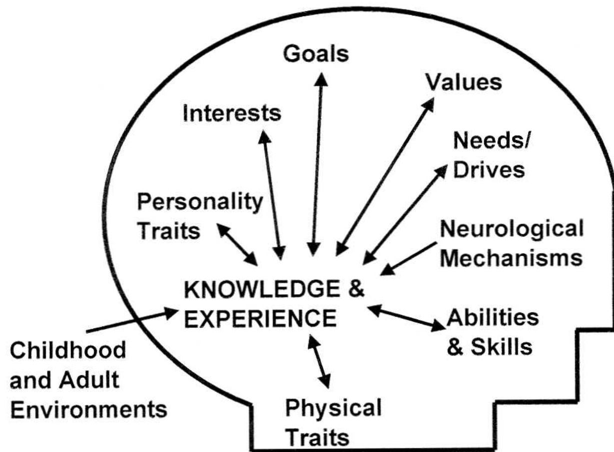
Knowledge can be defined as a person's accumulation of "knowledge factors" such as data, ideas, concepts, principles, methods, and other more or less factual information stored in memory. "Knowledge factors" should be distinguished from one's assumptions, conclusions, opinions, attitudes, and beliefs, which are also recorded in memory. These are basically interpretations of factual information and concrete experiences. Because they have generally been based upon incomplete or uncertain information, and because they may have been influenced by emotions more than reason, they are not necessarily valid or true.

Experience can be defined as one's accumulated "knowledge" of what is likely or unlikely to happen when various courses of action are taken under certain circumstances. The more experience one has, therefore, the better one can answer the question, "What might happen if I . . . (do this or do that)?"

Knowledge and experience enable us to (a) accomplish various tasks, (b) perform various roles, (c) behave within socially acceptable limits, (d) solve problems and make decisions, and (e) fulfill needs and attain goals.

When problems arise, we often draw upon our knowledge and experience for responses that worked before in similar situations. If learned responses do not seem to be appropri-

Figure 5: Cause/Effect Relationships Between Knowledge/Experience and Other Traits



ate, we will ty to reason out better solutions. In this case, we use our knowledge to analyze the situation and to formulate alternative solutions. We use our experience to formulate solutions and to test them mentally before making a decision which to use. Thus, the more we know and have experienced, the better we can cope with our environment.

As indicated in **Figure 5**, personal characteristics influence (a) what we learn, (b) how much we learn about it, and (c) how well we learn it.

Needs and drives, values, interests, and goals all affect how our attention is focused, concentrated, and sustained. What we learn (record in memory) is largely determined by our focus of attention. Focus of attention determines which of the various streams of sensations being experienced at any given moment will actually be recorded in memory. (Although this applies to unconscious attention as well as to conscious attention, what gains our conscious attention is generally better recorded and more easily recalled.) How much we learn about something and how well we learn it are largely influenced by the extent to which we concentrate and sustain attention on the learning process. *Examples*:

1. People who are highest in the economic value (and put financial goals at the top of their list) tend to focus attention on, and learn more about, making money and achieving financial success.
2. People who are highest in the social value (and put social goals at the top of their list) tend to focus attention on, and learn more about, interpersonal matters.
3. People who are highest in mechanical interests tend to focus attention on, and learn more about, mechanical objects and concepts.

What we learn, how much we learn, and how well we learn are also influenced by (a) the extent to which our learning abilities have been developed, and (b) the depth and breadth of our existing store of knowledge and experience. (The more we already know, the better we can interpret new information and record it in memory.) Even physical characteristics such as general health can influence what, how much, and how well we learn.

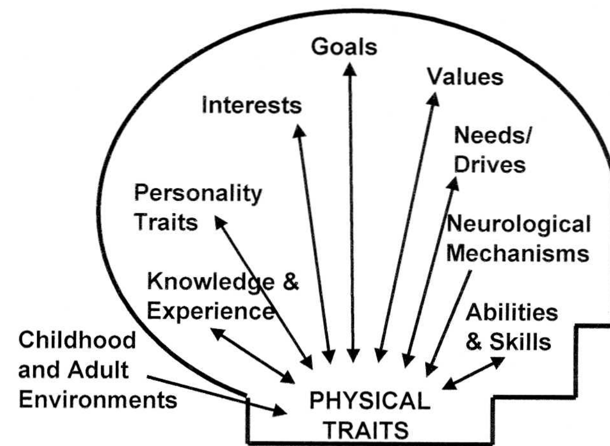
Figure 5 also indicates that, as knowledge and experience are accumulated (stored in memory), they in turn influence values, psychological needs, goals, interests, personality traits, abilities, physical traits, and subsequently learned knowledge and experience. *Examples*:

1. The more we learn about economic or financial matters, the more successful we tend to be in these areas, and the more we tend to become concerned about them (the higher we tend to become in the economic value).
2. The more we learn about the use of power and authority, the more successful we tend to be in these areas, and the more we can tend to (a) become concerned about political matters (the political value), and (b) assert ourselves over others (the dominance personality trait).
3. The more we learn about mechanical principles, the more we tend to become successful at, and interested in, mechanical activities.
4. The more we learn about people, interpersonal relationships, and functional behavior toward others, the higher the following characteristics tend to become: social insight; and personality traits such as social conscientiousness, adaptability, social maturity, and self-control.
5. The more we learn about personal motivation (personal goal-setting and planning), the better we can set goals that will help us focus attention on, and sustain effort in, important learning situations.
6. The more we learn about learning principles and how to structure our own learning situations, the better we can (a) learn and recall information and ideas, and (b) learn or develop various general abilities and specialized skills.

Since knowledge and experience are such important in-puts to successful behavior, it can be very worthwhile to ask oneself three questions: "What things do I know something about, and how much do I know about them? What things do I need to know something about, and how much do I need to know about them? What should I therefore make an effort to learn?" One problem with trying to answer the first question is that, if we don't know something, we probably don't know that we don't know it.

[Compare the extent of your knowledge and experience (in the various areas listed on the second page of the Personal Inventory) with a general population, and then record your levels. After you have completed the entire Inventory, see if you can find definite relationships between what you know and your needs/drives, values, abilities, personality traits, and interests. You might also ask yourself the last two questions posed above, taking into account job requirements and the knowledge or experience required in other roles.]

Figure 6: Cause/Effect Relationships Between Physical Traits and Other Traits



PHYSICAL CHARACTERISTICS

Different physical traits are influenced by different sets of personal and external factors.

Facial features and physical build, which determine one's general physical appearance to a significant degree, are initially influenced by inherited genetic codes. Many changes in these traits occur because of the aging process (e.g., wrinkling skin and deteriorating muscle tone). Changes can also be brought about intentionally. For example, physical abnormalities can be corrected by surgery and/or the use of prosthetic devices. Facial features and other areas of the body can be made more attractive through cosmetic surgery. Physical attractiveness can also be improved and maintained with good grooming, proper rest, exercise, and a balanced diet.

General health, body strength, and stamina are all influenced to some degree by several factors:

A. *Genetics*: We can inherit tendencies to, for example, be overweight or underweight, be large-framed or small-framed, be husky or frail, and be susceptible to or immune to certain diseases.

B. *Environmental Influences*: Several adverse influences are infectious diseases, polluted air and water, unsafe processed foods, and unsanitary living conditions. Several positive influences are preventive medical practices, medical technology, and skilled health care personnel.

C. *Proper Care of the Body*: Being healthy and physically fit depends upon proper exercise, rest, and nutrition. During our formative years, not getting proper nutrition, exercise, and rest can result in various mental and physical disorders or handicaps. During adulthood, it can result in psychological and/or physical disorders, tendencies to contract certain diseases, and impaired use of mental and physical capabilities.

D. *Mental Health*: Some researchers have attributed as much as 80% of illness to mental stress and anxiety, which tend to lower the body's resistance to infection and disease. Mental health, in turn, is largely dependent upon self-awareness and understanding, self-acceptance, and personal development and adjustment.

As shown in **Figure 6**, our knowledge and experience, values, interests, personality traits, and goals also influence many of our physical characteristics. *Examples*:

1. The extent of our knowledge concerning nutrition, exercise, prevention of illnesses, and detection of illnesses can significantly influence our ability to care for our bodies properly.
2. Personal goals involving home and family, career, and personal health can focus our attention on becoming more healthy.
3. Interests in sports and outdoor pursuits can motivate involvement in physically exerting activities that improve our overall health and increase our strength and stamina.
4. Being relatively high in personality traits such as "vigor" and "activity" represents tendencies to be energetic. Doing things energetically contributes to better health.

As also shown in **Figure 6**, physical traits are among the characteristics that influence attitudinal traits such as values, interests, and personality traits. These influences are often exerted in the following indirect rather than direct manner:

> Our "looks" are often the basis for others' first and sometimes lingering impressions of us. We may look trustworthy to one person, be trusted, and be given positive feedback. On the other hand, we may look dishonest to another person, not be trusted, and be given negative feedback. Similarly, because of our features and physical build, one person may feel romantically inclined toward us and give us positive feedback, while another may not. We often detect these positive and negative reactions to our physical characteristics.
>
> Positive reactions (positive feedback) tend to reinforce a positive, healthy self-image. They also tend to reinforce positive attitudes toward others, which are reflected in positive, "people-oriented" values, personal- ity traits, and interests. For example, those who have become accustomed to receiving more positive than negative feedback from others tend to be rather "extroverted" (relatively high in the personality trait, "sociability").
>
> Negative reactions (negative feedback), on the other hand, tend to create and reinforce a negative self-image. They also tend to create and reinforce negative attitudes toward others and relationships with others, which are reflected in lower people- related values, interests, and personality traits. For example, those who have become accustomed to receiving more negative than positive feedback from others tend to be rather "introverted" (relatively low in the sociability trait).

Physical capabilities and general health can significantly affect our ability to interact with the environment successfully. When we are ill, we can neither work nor relax well. Physical discomfort, especially at the point of intense pain, can consume our attention and impair our use of various abilities. Even if discomfort is only slight, worrying about a real or possible illness can be equally if not sometimes more distracting. Varying degrees of disorientation to our environment can result, impairing both mental and physical activity.

Particular physical characteristics are not absolutely necessary for various roles or jobs, but they do sometimes help. For example: Many politicians rely on features that project maturity, wisdom, self-confidence, and other admirable qualities. Male and female models rely on their physical appearance for a living. Many laborers depend on their upper body strength for a living. Most athletes depend on their strength and large muscle coordination to perform well. Many of those who sew or who work in electronics industries depend on their manual dexterity for a living.

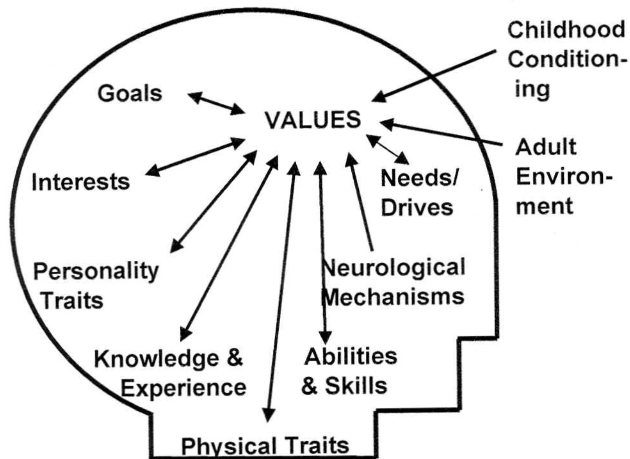
[For each of the five physical traits listed on the first page of the Personal Inventory, assess your level (relative to a general population) and record it on the Inventory.]

VALUES

Values represent what is important to us—or what we value. As we said in Part I, they reflect the relative degrees of importance we attach to various matters or areas of life activity. Like basic needs/drives, they can be internal motivators of behavior.

Values can be grouped into three main categories. Allport/Vernon/Lindzey (1970) identified the first group, which we refer to as "*Valued Matters*": the theoretical (intellectual) value; the economic (business, material, practical) value; the political (power) value; the social (altruistic) value; the religious (spiritual) value; and the aesthetic (artistic) value. Gordon (1967) identified the second group, which we refer to as "*Coping Values*": *practical-mindedness*; *achievement*; *variety*; *decisiveness*; *orderliness*; and *goal-orientedness*. Gordon (1960) also identified the third group — *Interpersonal Values*: *support*; *conformity*; *recognition*; *independence*; *benevolence*; and *leadership*. Many of these values are related to and actually underlie the personality traits discussed in the next section.

Figure 7: Cause/Effect Relationships Between Values and Other Characteristics



As shown in **Figures 1 and 7**, much of a person's value system is learned from parents and other adults during the "socialization process." When an individual is an adult, his or her values are affected by environmental influences such as the beliefs, morals, ethics, values, biases, attitudes, and feedback of family, friends, superiors, colleagues, and subordinates.

As also shown in **Figures 1 and 7**, people's own traits and behavior can influence what becomes more or less important to them. For example: If a person's business-related abilities and specialized skills are more highly developed than, say, artistic or intellectual abilities, and if the person also possesses personal goals, knowledge, experience, personality traits, and physical traits that are more conducive to business success than to success in artistic or intellectual matters, then he or she is more likely to be successful in business, practical, or economic matters. Greater success in a particular area results in (a) greater pleasure associated with that area, and (b) a more positive attitude toward that area. Therefore, if more success and pleasure are experienced through involvement in business or economic matters than through involvement in other areas, then economic matters tend to be more highly valued.

Interpersonal and coping values are influenced by one's childhood environment, adult environment, and other personal characteristics in much the same manner.

As we have pointed out before, all personal characteristics act with and upon each other as a very complex system. Thus, at whatever levels or stages of development they may be at any given moment, values also influence the development of and changes in the same characteristics that influence them. They influence (a) what we learn and how much we learn about it; (b) which abilities we develop and the extent to which we develop them; (c) the personality traits and interests we develop; and (d) the goals we formulate. *Examples*:

1. Being high in the political and leadership values tends to bring about an increase in (a) one's level of dominance (a personality trait); (b) the importance one attaches to career goals regarding power and position; and (c) one's knowledge of political matters.

2. Being high in the social and benevolence values tends to bring about increases in (a) one's level of social maturity (a personality trait); (b) the importance one attaches to social goals; and (c) one's knowledge of social/interpersonal matters.

[Because many of the values in these three categories are related to each other, we recommend that you read the entire section on values before assessing the level of each and filling in the Personal Inventory.]

"Valued Matters"

The more importance an individual attaches to matters associated with a certain area of life activity, the more time and energy he or she will spend involved in that area. However, an equally high level of importance cannot be attached to all six areas of activity. Each person will tend to be highest in one, lowest in another, and somewhere between the highest and lowest in the rest.

The Intellectual (Theoretical) Value

Although Allport/Vernon/Lindzey call this the theoretical value, we prefer to call it the "intellectual value." It reflects the
overall level of one's concerns for truth, knowledge, and study.

Those who are high in this value tend to be analytic, rational, objective, and impersonal in their attitudes and beliefs. They have an inclination to ask "why," to search for causes, and to identify relationships among things, activities,

ideas, and concepts. They are also concerned with ordering and systematizing their knowledge. Conversely, those who are relatively low in this value tend to be much less concerned about intellectual or conceptual matters.

Researchers and philosophers are examples of those who are relatively high in the intellectual value. Particularly in the past, the "average male" has tended to be higher than the "average female."

Referring to the Intercorrelation Table in **Appendix A** (page 54), we note the following possible relationships with other characteristics: Highly intellectual or theoretical people also tend to be relatively high in independence, leadership, and original thinking. On the other hand, they can tend to be relatively low in the religious value, benevolence, conformity, and sociability.

The Economic (Business/Practicality) Value

The economic value reflects the overall level of one's concerns for business (career/financial) success and the usefulness of things.

Those relatively high in this value are very practicalminded and interested in material things and making money. Conversely, those relatively low in the economic value are not particularly concerned about practical matters, things, and business or financial success.

The average American businessperson is typically high in this value. Particularly in the past, males have tended to be considerably higher than females. Today, however, more and more females are just as high as the average male.

People who are high in the economic value also tend to be relatively high in the political (power) value, orderliness, and the desire for others' recognition. On the other hand, they tend to be relatively low in social, aesthetic, and religious values, the concerns for achievement and variety, and benevolence toward others.

The Social (Altruistic) Value

This value reflects the overall level of one's concerns for the public good, people's well-being, and social justice.

People who are high in the social value have a love of people and are unselfish, sympathetic, and kind. They can regard business and theoretical matters as cold and inhuman. (Being high in the social value, however, does not necessarily mean that one will also be highly sociable—i.e., outgoing/ extroverted toward others.) Conversely, those relatively low in this value are not particularly concerned about others' welfare and feelings. As a result, they generally behave in a more selfish or self-serving manner.

Those who are usually high in the social value include altruists, philanthropists, social welfare workers, and social scientists. The "average female" is generally higher than the "average male."

People who are high in this value also tend to be relatively high in the religious value, benevolence, social conscientiousness, and social maturity. On the other hand, they are inclined to be relatively low in economic and political values, independence, leadership, and dominance (self-assertiveness).

The Political (Power) Value

This motive reflects the overall level of one's concerns for power, position, authority, and influence.

Regardless of their occupations, people who are high in this value seek prestige and positions of authority or influence over others. Conversely, those who are low do not. Instead, they tend to be more passive/submissive "followers."

Those typically high in the political motive are lawyers, politicians, salespersons, military leaders, and business executives. Although many females are becoming higher in this value, the average male is generally higher than the average female.

People who are high in this value also tend to be relatively high in economic and leadership values, vigor, and dominance. On the other hand, they are inclined to be relatively low in the social, religious, and benevolence values.

The Aesthetic (Artistic) Value

The aesthetic value represents the overall level of one's concerns for beauty, harmony, grace, (symmetry of) form, color, lighting, texture, and other aesthetically pleasing qualities.

Those who are high in this value enjoy the beauty in their experiences, even though they may not be artists. Conversely, those who are low in this value find greater fulfillment in other matters—such as power, money, knowledge, religious experiences, and benevolence toward others.

People typically high in the aesthetic value are artists, musicians, connoisseurs, and craftspeople who possess a spirit of "beauty in workmanship." The average female is higher than the average male.

People who are high in this value also tend to be rather high in the variety and independence values. On the other hand, they tend to be relatively low in the economic and religious values, goal-orientedness, and vigor (which was once used quite often as a measure of masculinity).

The Religious (Spiritual) Value

This value represents the overall level of one's concerns for spiritual truth and for religious beliefs, activities, and experiences.

Those who are high in the religious value seek spiritual fulfillment and involve themselves in religious matters. Conversely, those who are low involve themselves in more secular matters.

People typically highest in this value are ministers, converts, and mystics. Traditionally, the average female has been higher than the average male.

People who are high in this value also tend to be rather high in the social value, conformity, and benevolence. On the other hand, they are inclined to be relatively low in the theoretical, economic, political, and aesthetic values and in the concerns for recognition and independence.

"Coping Values"

These values reflect the manner in which a person approaches life and copes with the environment from day to day. They include: practical-mindedness; decisiveness; achievement; variety; orderliness; and goal-orientedness. As in the case of valued matters, each person will tend to be highest in one, lowest in another, and somewhere between the highest and lowest in the rest.

Practical-Mindedness

People who are high in this value want to get their money's worth. They take care of their property and get full use or value from it. They are careful with their money, and involve themselves in activities that will "pay off." Conversely, those relatively low in practical-mindedness are less concerned about economic or practical matters. As a result, they normally behave in a less prudent, more wasteful manner.

Highly practical people tend to be high in the economic value. They are also inclined to be relatively high in their concern for others' support. On the other hand, they are less inclined to value achievement, decisiveness, and leadership.

Achievement

This value corresponds to McClelland's "Need for Achievement." High achievers like to accomplish something significant. Consequently, they are inclined to tackle challenging jobs and work on difficult problems. Since they set high standards for personal accomplishment, they strive to be outstanding at everything they undertake. They want to do whatever they are doing the best they can—which they usually hope is better than it has ever been done before. Conversely, low achievers usually set much lower personal standards and avoid challenges and difficult problems.

High achievers tend to be relatively high in the leadership value, self-confidence, self-assertiveness, and original thinking. On the other hand, they tend to be less concerned about economic matters, practicality, variety, orderliness, conformity, and others' support.

Variety

People who value variety highly pursue new and different activities or experiences and like to travel often to strange or unusual places. They prefer adventure to routine and are inclined to seek the element of danger. Conversely, those who are rather low in this value tend to avoid new experiences, risk, and danger. They also settle into a rou tine more readily.

People who are high in variety also tend to be rather concerned about aesthetic matters and independence. On the other hand, they are inclined to be relatively low in the economic value, achievement, orderliness, goal-orientedness, conformity, responsibility, and self-control.

Decisiveness

Being highly decisive is equated with making decisions quickly, sticking to them, and holding strong convictions. Decisive people come quickly to their point, and make their opinions very clear to others. Conversely, those who are low

in decisiveness tend to put off making decisions, are less capable of making up their minds, and are easily swayed from their opinions.

Highly decisive individuals tend to be rather independent. On the other hand, they tend to be relatively low in practical-mindedness and orderliness.

Orderliness

People who are very orderly have well organized work habits, do things in a systematic manner, and like to keep things in their assigned places. Conversely, people relatively low in this value are usually disorganized, disorderly, and unsystematic.

Those who value orderliness highly also tend to be relatively high in the economic value, goal-orientedness, conformity, and self-control. On the other hand, they are inclined to be relatively low in original thinking and the concerns for achievement, variety, decisiveness, and independence.

Goal-Orientedness

Highly goal-oriented people work toward a definite goal or objective, always keeping it in mind. They persevere in an activity until it is accomplished, and stick to a problem until it is solved. Conversely, those who are low in goal-orientedness tend to be non-persevering and to behave rather aimlessly and impulsively.

Those who are high in goal-orientedness also tend to be rather orderly, conformant, responsible, and self-controlled. On the other hand, they are inclined to be relatively low in the aesthetic value and the concerns for independence and variety.

Interpersonal Values

Interpersonal values reflect how people think and feel about themselves, other people, and their relationships with others. These attitudes underlie individuals' personality traits and the natures of their interpersonal or social relationships. They include concerns or "needs" for the following: support; conformity; recognition; independence; lead- ership; and benevolence. Again, each person will be highest in one, lowest in another, and somewhere between the highest and lowest in the rest.

Support

People who value others' support highly want to be treated with kindness, understanding, and consideration. They also want (need) others' encouragement. Conversely, to those who are low in this value, different forms of support are less important or less needed.

Those who have a high concern for support also tend to value practicality and others' recognition. On the other hand, they are less concerned about achievement and leadership. They also tend to be relatively low in vigor, self-confidence, self-assertiveness, responsibility, and original thinking. This pattern of trait levels often reflects a low or uncertain self-image—that is, a tendency to say, "Am I OK?" rather than "I am OK." People who see others as being "more OK" than themselves often seek others' support in order to enhance or reinforce their self-image.

Conformity

People who value conformity highly are very concerned about doing what is accepted, proper, or socially correct. They usually follow rules or regulations closely. Conversely, "non- conformists" are not particularly concerned about adhering to customary or expected modes of behavior.

Those who are high in this value also tend to be rather religious, orderly, goal-oriented, benevolent, socially conscientious, and self-controlled. On the other hand, they are less likely to value economic matters, achievement, variety, independence, recognition, and leadership. Generally speaking, these are people who "toe the mark" because (a) they have been highly socialized, and/or (b) they are not certain that they are "OK." In the latter case, they may be conforming in order to gain the approval, acceptance, or support of others, whom they may view as being "more OK" than themselves.

Recognition

People who value recognition highly are very concerned about being admired and respected. They want to be considered important, to attract notice, and to achieve recognition. Conversely, such things mean little to the people who are low in this value.

Those who value recognition highly also tend to value economic matters and support. On the other hand, they are less inclined to value religious matters, conformity, independence, and benevolence. They can tend to be socially outgoing, but may also be somewhat emotionally unstable.

This pattern of trait levels can indicate a relatively healthy self-image—that is, a tendency to say “I think I’m OK and deserve others’ respect and admiration.” Nonetheless, it seems that such people still need positive feedback from others to confirm and reinforce their self-image.

Independence

People who value independence highly are self-sufficient and resist restriction. They tend to do things for themselves, make their own decisions, do what they want to do, and do things their own way. Very high independence can result in willfulness, stubbornness, and compulsive decisiveness, which can be handicaps when working with other people. Conversely, those who are low in independence (are dependent) tend to be suggestible and low in individuality and initiative. As a result, they often seek others’ advice or direction.

Highly independent individuals also tend to value theoretical and aesthetic matters, variety, and decisiveness. On the other hand, they are generally less inclined to value social and religious matters, orderliness, goal-orientedness, conformity, recognition, and benevolence. They also tend to be more socially introverted (not outgoing or extroverted). This pattern of trait levels can indicate an “I’m OK” attitude. However, there may be a tendency to see others as “not as OK as I am.”

Benevolence

Highly benevolent, unselfish people are very concerned about helping others, sharing things with them, doing things for them, and being generous to them. Conversely, those relatively low in benevolence are considerably less selfless.

Very benevolent people are also inclined to be relatively high in social and religious values, conformity, social conscientiousness, mature relations (social maturity), and responsibility. On the other hand, they tend to be relatively low in the economic, political, and theoretical values and in the concerns for recognition, independence, and leadership. This pattern of trait levels indicates a “You’re OK” attitude toward others.

Leadership

Closely related to the political value and the “need for power,” this is the concern for having a position of leadership or authority. Those who are high in this motive very much value “being in charge” and having influence over others. Conversely, those relatively low in the leadership value are much less concerned about power or authority.

People who are high in this value also tend to be rather high in the intellectual and achievement values, vigor, self-confidence, dominance, sociability, and original think-ing. On the other hand, they can be relatively low in the social value, practical-mindedness, conformity, and the concern for support. This pattern of trait levels can under- lie the attitude that “I’m OK, but others are not quite as OK as I am.”

The average male tends to value independence and leadership more than the average female. On the other hand, the average female tends to value support, conformity, and benevolence more than the average male.

In general, the most benevolent people are inclined to have the most positive “You’re OK” attitude toward others. Those who are highest in leadership and independence tend to have the most positive “I’m OK” attitude. Conformists and people to whom support is highly important can both tend to see others as being “more OK than I am.” Whereas people who value recognition highly may have a rather strong “I’m OK” self- image, they still seem to need others’ confirmation and reinforcement of this self-image. Different orientations toward self and others, such as these, result in different types of relationships with other people. (We discuss ego states and life positions, which revolve around attitudes regarding one’s own and others’ “OK-ness,” in Part I of the segment of the series entitled “Interpersonal Relations.”)

[Although there are correlations among values in the three groups described above, assess your levels for each group separately—since each group is a measure of more or less distinct types of orientations to the environment. When you have completed this portion of the Personal Inventory, you should have three separate “scales”—one for valued matters, one for coping values, and one for interpersonal values. Each scale should indicate the level of your highest value, the level of your lowest value, and the levels of the other four values somewhere between the highest and the lowest.]

PERSONALITY TRAITS

Personality consists of more or less observable traits (behavioral tendencies) that have meaning or importance within family, organizational, and various other social contexts. Since people are, say, high in dominance or low in dominance compared to other people (who are either higher or lower), levels of these traits are relative among individuals. (As shown in Exhibit 1 on page 2, about 7% of people are "very low," while about 7% are "very high." About 24% are "low," while about 24% are "high." Most people—about 38%—are "average.")

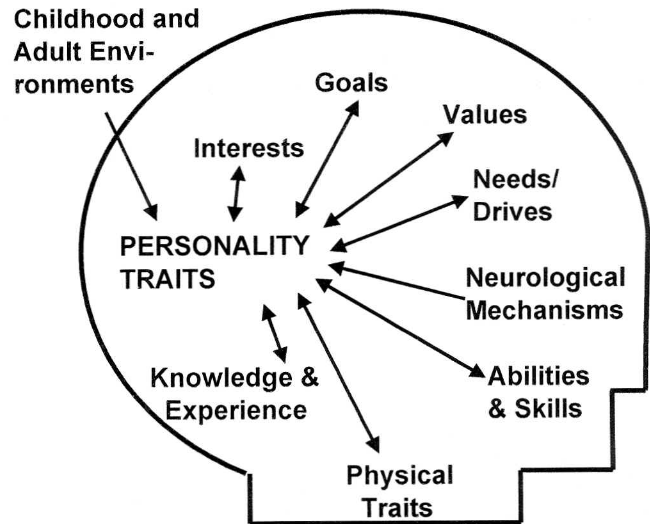
A *normal personality* is displayed by those who have adjusted successfully to customary ways of living and have adapted their behavior to fit within socially accepted limits. Those having normal personalities are "in touch" with themselves and the realities of their environment to a degree that enables them to functional normally.

An *abnormal personality*, on the other hand, is displayed by those who have neither adjusted to customary ways of living nor adapted successfully to the social environment. Those having abnormal personalities usually display some form of abnormal behavior (e.g., neurotic, psychotic, highly compulsive, or highly unstable behavior). Such behavior is often caused by neurophysiological, biochemical, and physical disorders. It can also be caused by adverse environmental factors and circumstances, which can generate disorienting or otherwise debilitating frustrations, tensions, and anxieties even in "normal people."

Even though we may be born with one of several "basic personalities" (as some experts believe), our early development of various specific personality traits is largely influenced by behavioral examples and other inputs emanating from adults (and, to some extent, peers). As we grow older, however, development of and changes in our personality traits are increasingly influenced by environmental responses/feedback to our own behavior. Development and change processes are also increasingly influenced by our other personal characteristics. *Examples*:

1. One ability, social insight, affects how sensitively and conscientiously we treat others. Communicative skills influence how successfully we interact with others.
2. Knowledge and experience contribute to, for example, social insight and our tendencies to control emotions and be tolerant (adaptable).

Figure 8: Cause/Effect Relationships Between Personality Traits and Other Traits



3. Various physical traits influence others' reactions to us, thereby indirectly influencing how sociably we behave toward them.
4. Two "selfish" values (the economic and political values) and one "selfless" value (the social value) influence how conscientiously and maturely we behave toward others.
5. An interpersonal value, benevolence, influences how warmly and compassionately we treat others.
6. Interests motivate participation in various activities that provide opportunities to interact with other people and to receive feedback from them.
7. Personal goals, especially those that involve social fulfillment, influence the extent to which we interact with others.

Figures 1 and 8 take all of the above phenomena into account. They also indicate that interactions among personal characteristics can work in the opposite direction.

As personality traits develop and undergo varying degrees of change, they in turn influence the development of, and changes in, other personal characteristics. *Examples*:

1. Those who are outgoing and genuinely interested in people tend to interact with others frequently. As a result, they acquire more people-related knowledge and experience, which contribute to greater social insight.

2. Those who have pleasing, people-oriented personalities usually receive positive feedback in social situations. As a result, the levels of their social and benevolence values tend to increase, and they are inclined to attach increasing importance to their social goals.

These few examples of the internal and external influences on social behavior again point out that (a) personal characteristics act with and upon each other, and (b) their interrelationships and interactions are influenced by environmental stimulation and feedback.

The personality traits described below include: vigor; self-confidence; dominance (self-assertiveness); sociability; adaptability; social conscientiousness; mature relations (or social maturity); responsibility; original thinking; emotional stability; and self-control.

None of these traits should be considered alone. Each should be considered within the context of the others. There are at least two reasons: First, most of these traits have positive and/or negative correlations (relationships) with other traits. (In other words, being high in trait "A" can also mean being relatively high in traits "B" and "C," while at the same time being relatively low in trait "D.") Second, forming a complete, meaningful, and fair picture of someone's personality requires considering all of these traits and their relationships.

Being high or low in these traits is not necessarily good or bad. However, being too high or too low may not be appropriate or functional for effective job performance, successful interpersonal relations, adequate fulfillment of needs, and/or eventual attainment of certain goals.

[Read about all these traits first, then assess your level of each (relative to a general population) and record it on the Personal Inventory.]

Vigor

Highly vigorous people are active, energetic, and full of vitality. They maintain a lively, rapid pace regardless of what they may be doing. As a result, they are able to get more done than those who are less vigorous.

Conversely, those who are relatively low in vigor are less energetic and lower in stamina than the average person. They prefer to "take it easy." As a result, they accomplish less than most people.

As shown in the Intercorrelation Table on page 54, highly vigorous and active individuals also tend to be relatively high in political and leadership values, dominance (self-assertiveness), sociability (gregariousness), responsibility, original thinking, and impulsiveness. On the other hand, they are less inclined to be concerned about aesthetic matters and receiving others' support.

As do others, we treat the terms "vigor" and "activity" as being synonymous. Indeed, their correlations with other traits are quite similar. We should note, however, that some frames of reference treat them as different traits and associate "vigor" more closely with "masculinity." They do so because of the male tendency to expend a great deal of energy using large muscle groups in work, sports, and outdoor activities. Today, however, using "vigor" as an indicator of masculinity is less valid than in the past, largely because more and more females are becoming just as vigorous as males in these respects.

Self-Confidence

This is a measure of an individual's tendency to be poised, confident, and self-assured. It is also a measure of personal adjustment, since self-confident people are free of self-consciousness, feelings of inferiority, and excessive selfcriticism. Self-confidence, therefore, stems from a healthy self-image and an "I'm OK" attitude. Conversely, low self-confidence can mean that a person is not coping well with his or her environment. This may be the result of poor health, misfortune, continual contact with a very dominant person, or the underdevelopment of capabilities that enable successful interaction with the environment. Those who see themselves as deficient or inferior tend to emphasize their weaknesses and overlook their strong points and accomplishments. Unfortunately, this only serves to reinforce a low self-image.

Based on the definitions of this and other traits, and also on correlation data from various sources mentioned in the Intercorrelation Table Notes, we would expect highly selfconfident people also to be rather high in achievement and leadership values, dominance, sociability, adaptability, mature relations, and emotional stability. On the other hand, we would not expect them to be especially concerned about others' support. (Self-confidence, sometimes called the "sense of psychological well-being," is an underlying factor in most of these traits. This is the reason we have included it as a separate item on the Personal Inventory.)

Dominance

Highly dominant people are usually described as being self-assured, self-assertive, aggressive, extroverted, and verbally ascendant. They take the initiative in dealing with people and are inclined to dominate conversations. Therefore, compared to other types of people, they are the most likely to make independent decisions, assume authority or group leadership, influence or persuade others, organize social activities, and promote new projects.

Conversely, those who are low in this trait lack self-confidence. Tending to be uncertain, they often turn to others for advice. In groups, they are rather passive, reticent, and submissive. They do more listening than talking and let others take the lead.

Rather than using the term "dominance," some psychologists use the term "ascendance." Others use the term "self--assertiveness." We prefer the latter term. In our view, people are "dominant" only when they are highly self-assertive. Regardless of their slight differences, however, all these terms connote self-confidence coupled with concerns for power, authority, or influence. This combination of traits underlies the tendency to take not only an active role in social situations, but also a leadership or dominant role.

In addition to being rather high in self-confidence and political or leadership values, people who are high in self-assertiveness also tend to be relatively high in vigor, sociability, original thinking, and the need to achieve. On the other hand, they can be rather low in the social value, the concern for others' support, and self-control.

Salespersons, managers, and leaders should be "above average" to "relatively high" in self-assertiveness. However, these and other people can be too dominant (domineering) when their self-assertive tendencies are not tempered with good judgment and worthwhile, people-oriented motives.

Sociability

People high in sociability are social *extroverts*—those who are gregarious, outgoing, and genuinely interested in people. They seek and enjoy others' company, mix well with others, and make friends easily.

Being a social extrovert does not necessarily mean that an individual is socially mature and interpersonally effective—even though a few frames of reference also describe a sociable person as being cooperative, agreeable, tolerant, and understanding. As we will discuss shortly, these qualities are related to the tendency to have "mature (interpersonal) relations," which can be considered a separate trait. Here we are only discussing the basic tendency to gravitate toward other people. We believe that this distinction is important. (We should add that the social extrovert is not necessarily a "back-slapper" or "glad-hander." Many regard such behavior as being "phony.")

Conversely, people relatively low in sociability are social *introverts*—those who are not particularly interested in relating with others. They restrict their social contacts, do not readily join group activities, and usually have only a few select friends. If they are extremely introverted, they actually tend to avoid social contact.

A horizontal scale of sociability ranges from "very low" on the left end to "very high" on the right end. Dividing the scale into two equal sides puts introverts on the left side and extroverts on the right side. People at the middle of the scale are neither introverts nor extroverts. They are called *"ambiverts"*—those who are average in sociability and can be somewhat introverted in some situations and somewhat extroverted in others.

As shown in the Intercorrelation Table, highly sociable people also tend to be relatively high in vigor, self-confidence, dominance, leadership, and the concern for recognition. On the other hand, they tend to be relatively low in self-control, the intellectual value, and independence. Conversely, social introverts are generally described as being dependent and self-controlled. They tend to be relatively low in vigor, self-confidence, self-assertiveness, and the concern for recognition.

Adaptability

Highly adaptable people have a healthy self-image and are low in ego-defensiveness. They think honestly about themselves and recognize that, even though they are OK, there is always room for improvement. They also think honestly and realistically about other people and the environment. They recognize that all things in life cannot be the way they would like to have them. They are not perfectionists and can get along in situations that are not exactly the way they think they should be.

These qualities enable highly adaptable people to "give and take" and be good compromisers. They also enable them to be flexible and tolerant of ambiguity. Such individuals adjust easily to changing, uncertain situations. They are also easy to train, because they learn from their mistakes instead of trying to justify or rationalize them.

Conversely, those who are low in adaptability have a tendency to be self-righteous, arrogant, and inflexible—especially if they are also very idealistic, responsible, and socially conscientious. Because they tend to feel that they are "more OK" than those around them, and because they can give criticism much better than they can take it, they are often irritated by, critical and suspicious of, and antagonistic toward other people. Such individuals can be very difficult to work for or with.

As we will discuss shortly, adaptability is one of two traits that underlie "mature relations." (Among other characteristics, one's adaptability also influences how honestly he or she fills in the Personal Inventory.)

Based on the definitions of this and other traits, and also on correlation data from various sources, we would expect highly adaptable people also to be rather high in (a) self-confidence and original thinking (both of which can contribute to adaptability); and (b) mature relations, emotional stability, and self- control (all of which can partly result from adaptability).

Social Conscientiousness

Individuals who are high in social conscientiousness have been highly socialized and possess high ethical and moral standards regarding interpersonal relationships and behavior toward others. Their behavior is based more on social ideals and principles than on self-interest and expediency. They can submerge the satisfaction of their own needs and motives for the sake of others' feelings and well-being. Consequently, they are often described as being concerned for others, selfless, and loyal.

Conversely, those who are low in social conscientiousness tend to be self-centered. They are inclined to seek their own satisfaction regardless of the expense to others' feelings and well-being. Such people are often described as being competitive, opportunistic, impulsive, uninhibited, and "rough and ready."

Together, social conscientiousness and adaptability underlie "mature relations."

When individuals are high in social conscientiousness but low in adaptability, they expect others to adhere to high standards of social behavior, too. But when others do not (or cannot), these individuals tend to become irritated, critical, suspicious, and antagonistic.

Based on definitions of this and other traits, and also on correlation data in the Intercorrelation Table, we would expect highly conscientious individuals also to be relatively high in (a) social, conformity, and benevolence values (which partly underlie this trait); (b) mature relations and self-control (which partly result from high social conscientiousness); and (c) responsibility (which also reflects that an individual has been highly socialized).

Mature Relations (Social Maturity)

Individuals who are high in mature relations behave maturely, functionally, and effectively in their interpersonal relationships. They can "give and take" and be cooperative, agreeable, helpful, understanding, trusting, patient, and tolerant. Because of their faith and trust in people, they are loyal to, and speak well of, others. Because they are concerned about others' feelings and well-being, they are considerate and will suppress self-interest for others' sakes.

Although the term "personal relations" is sometimes used to represent these traits, we prefer to use the terms "mature relations" and "social maturity." Both imply that conducting functional relationships largely depends upon one's social or interpersonal maturity.

Socially mature, interpersonally effective individuals are high in both social conscientiousness and adaptability. Their social principles—and their relatively high social and benevolence values—underlie their conscientious, benevolent behavior. Although these individuals try to live up to high ideals and would like to see other people doing the same, they are not irritated, critical, and antagonistic when others do not. Their relatively high adaptability balances or tempers such inclinations. It enables them to acknowledge their own faults and weaknesses. As a result, they can forgive these frailties in others as they do in themselves.

Conversely, people who are considerably lower in social maturity can be divided into three different groups. Those in the first group are high in adaptability but low in social conscientiousness. While these people tend to be flexible, they are not particularly principled or benevolent. Those in the second group are high in social conscientiousness but low in adaptability. These people tend to be rather impatient with, irritated by, critical and suspicious of, and antagonistic toward others. Those in the third group are low in both social conscientiousness and adaptability. These people tend to be the lowest in social maturity and the least effective in their interpersonal relations.

In addition to being relatively high in underlying characteristics such as the social and benevolence values, adaptability, and social conscientiousness, people who are high in mature relations also tend to be relatively high in self-confidence, responsibility, original thinking, emotional stability, and self-control. Like the first three traits, the last five also underlie social maturity to some extent. While self-confidence and emotional stability partly underlie social maturity, they also tend to result from functional interpersonal relationships made possible by social maturity.

Responsibility

Highly responsible people have high ethical and moral standards regarding work (and similar responsibilities not of a social nature). Their behavior is based upon principles and ideals rather than expediency. They are conscientious in their work and will see a difficult job through to its completion. Consequently, they are generally described as being determined, persevering, persistent, thorough, and reliable.

Conversely, people who are low in this trait do not take responsibilities seriously. Instead, they are inclined to be more opportunitstic than idealistic. They tend to seek immediate results or satisfaction at the expense of better long-term results or greater long-term satisfaction. As a result, they are not very thorough, persistent, or reliable.

Those who are high in responsibility but low in adaptability tend to be self-righteous, inflexible, and somewhat arrogant. Expecting others to behave in the same highly responsible manner, they tend to become impatient, irritated, critical, suspicious, and antagonistic when others do not. Such people are difficult to work for or with.

In addition to relatively high goal-orientedness (which can partly underlie this trait), people who are high in responsibility also tend to be relatively high in conformity, benevolence, vigor, social conscientiousness, mature relations, emotional stability, and self-control. On the other hand, they can tend to be relatively low in their concerns for variety and others' support.

Original Thinking

People high in this trait are usually described as being meditative, thoughtful, reflective, and analytic. They like to work on difficult problems and to spend time thinking about ideas—especially new ideas. They are intellectually curious and readily join thought-provoking discussions. (A relatively high theoretical value underlies a high level of this trait to a great extent.) Such people are well suited to analytic, planning, and creative work.

Conversely, people who are low in this trait would rather act than think and plan. They are not particularly interested in acquiring knowledge and would rather not be bothered with deep thoughts or critical evaluation of information and ideas.

Regardless of whether they are high or low in original thinking, all people think about something. Based on what they think about and how readily they express it, individuals can be divided into two additional groups: "thinking extroverts" and "thinking introverts." *Thinking extroverts* readily express their thoughts and ideas (whether deep and "original" or not). *Thinking introverts*, on the other hand, keep their thoughts to themselves. They turn their thoughts inward toward self-examination and their own fantasies. Being quiet and self-contained, and preferring to work alone, they are less adapted to social, leadership, or managerial work than thinking extroverts.

The Intercorrelation Table indicates only the tendencies of people who are high in original thinking and are more or less thinking extroverts. In addition to being relatively high in the intellectual value, rather extroverted original thinkers also tend to be relatively high in the need to achieve, the leadership value, vigor, dominance, adaptability, and mature relations. On the other hand, they are inclined to be rather low in their concerns for orderliness and others' support. (Conversely, thinking introverts tend to be relatively high in the concerns for aesthetic matters and others' support. On the other hand, they tend to be relatively low in vigor, dominance, sociability, and emotional stability.)

Emotional Stability

Individuals who are high in emotional stability have an even disposition. They generally do not experience "emotional peaks and valleys." Neither are they easily distracted or irritated by noise and interruptions when they are concentrating on something. Because they are free of worries, tensions, anxieties, and fears, and because they can relax easily, they are usually described as being calm, serene, and well--balanced.

Conversely, people relatively low in emotional stability are characteristically worried, nervous, hypersensitive, and easily upset by distractions, interruptions, and things going wrong. Their emotional peaks and valleys waste energy and hinder personal performance or achievement. The resulting frustrations can keep them in a constant state of emotional

turmoil. (These individuals are very likely to be "thinking and/or emotional introverts," who "bottle up" and dwell on their own thoughts, feelings, and fantasies. It seems to them that occurrences in their environment have a great impact upon their "inner world." As a result, they tend to "blow events out of proportion" and overreact to them emotionally.)

Those who are high in this trait also tend to be relatively high in self-confidence, adaptability, mature relations, responsibility, and self-control. On the other hand, they can tend to be relatively low in their concern for recognition.

Self-Control

People who are high in self-control tend to be cautious, careful, and self-disciplined. They think before acting and do not make spur-of-the-moment decisions. Excitement does not particularly appeal to them and they prefer not to take chances. Being very self-restricting or self-restrained, they are not inclined to be especially active or impulsive.

Conversely, those who are low in self-control do tend to be impulsive. They (re)act quickly and jump easily from one activity to another. They are happy-go-lucky, seek excitement and adventure, and like to take risks. Also having a tendency to look out only for themselves, they are inclined to be be rather competitive, opportunistic, and aggressive.

People who are high in self-control also tend to be relatively high in orderliness, goal-orientedness, conformity, social conscientiousness, adaptability, mature relations, responsibility, and emotional stability (most of which indicate having been rather highly socialized). On the other hand, they can tend to be relatively low in vigor, dominance, sociability, and the concern for variety.

In order to understand ourselves and others more fully, it is important to look for and think about the specific behavioral tendencies described above. It is equally important to consider how other characteristics might have influenced the levels of these traits. For example: Is an individual's level of a certain trait largely due to his or her levels of particular needs and/or values? Is it largely due to particular abilities, skills, knowledge, or experience? What about the individual's physical characteristics? What about the individual's interests and personal goals? What about the influences that might have been exerted by the individual's social environment (by friends, co-workers, family, etc.)? More than likely, an individual's level of any specific personality trait has been influenced to some extent by all these factors. Again, every individual is actually a *system* of interrelated and interacting characteristics operating within the environment.

[After reconsidering all of these traits, assess your level of each (relative to a general population) and record it on the Personal Inventory Format. You might also think about how your other characteristics, your behavior, and the environment might have influenced your present levels of these traits.]

INTERESTS

Interests can reflect attitudes concerning either activities, objects, places, or interaction with other people. The interest areas mentioned below mostly involve activities. Many of these activities, however, revolve around people and/or objects.

When individuals are (positively) interested in something, they are more inclined to approach it and become involved with or in it. When they are not interested in something, they are less inclined to become involved with/in it—and may even avoid it. Interests, therefore, can be important motivators of behavior. Together with needs and drives, values, and goals, they influence people's focus of attention on, and expenditure of energy in, different activities.

Kuder (1939) grouped vocational and avocational interests into ten broad categories. The following are brief descriptions of these categories. Specific occupations and avocations associated with each category are listed on the third page of the Personal Inventory Format.

Mechanical Interests revolve around working with machines and tools.

Computational Interests revolve around working with numbers and symbols (as in formulas and equations).

Scientific Interests revolve around discovering things and solving problems.

Persuasive Interests revolve around advocating, promoing, or selling something. Such activities involve meeting and dealing with people.

Artistic Interests revolve around creating art objects or other aesthetically pleasing works. More specifically, they revolve around doing artistic work with one's hands—such as painting or sculpting.

Musical Interests revolve around (a) composing, playing, singing, or listening to music, and/or (b) learning about music, musical instruments, and musicians.

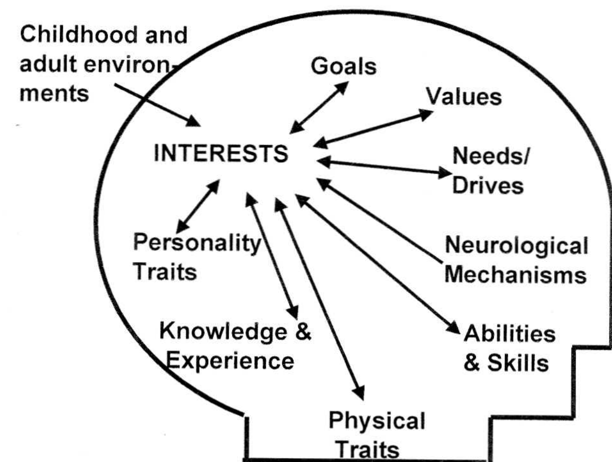
Literary Interests revolve around reading and/or writing either poetry, prose, fiction, or nonfiction.

Social Service Interests revolve around helping or caring for other people.

Clerical Interests revolve around office work involving clerical (and some secretarial) activities.

Outdoor/Natural Interests revolve around outdoor activities, especially those that involve animals and other living things.

Figure 9: Cause/Effect Relationships Between Interests and Other Traits



As shown in **Figures 1 and 9**, many factors play a role in developing and bringing about changes in interests.

During childhood, interests are largely influenced by adult expectations and pressures. For example: Most boys are encouraged to become interested in mechanical things and in vigorous sports such as baseball and football. On the other hand, many girls are encouraged to become interested in domestic activities such as homemaking and childrearing.

As we grow older, our own personal characterisistics increasingly influence the levels of our interests in various areas. *Examples*:

1. Various basic needs—especially social and ego needs—constitute "built-in" interests in activities involving people.
2. Many of those who are high in the social and benevolence values develop interests involving social service activities.
3. Those who are high in, say, mechanical abilities, skills, knowledge, and experience tend to be successful in mechanical activities, to experience positive feedback, and to experience increased interest in such activities.
4. Setting high goals concerning, for example, one's sales performance can focus attention on persuasive activities and increase one's level of interest in them.
5. Even though we may not always be entirely successful in a particular area of activity, having a likable personality can influence others to give us praise and encouragement, which can help stimulate or maintain an interest in that area.

As also shown in **Figure 9**, interests influence (contribute to the development of or changes in) the levels of the same personal characterisistics that influence them. *Examples*:

1. An increased interest in mechanical areas can motivate greater involvement in mechanical activities, which in turn can contribute to an increase in mechanical comprehension.
2. A high interest in literary pursuits can motivate an individual to do extensive reading or writing, which in turn can increase vocabulary and further develop reading and writing skills.
3. A high interest in social service can motivate frequent interaction with people, which in turn can bring about increases in the levels of social insight, social and benevolence values, and interpersonal skills.

In effect, we have just described some of the events involved in a universal phenomenon: *People tend to be most interested in what they are best at, and also tend to become better at what they are most interested in.*

Exhibit 2: Interest Areas and Underlying or Related Personal Characteristics

Mechanical	Persuasive	Literary
Mechanical Visualization Mechanical Comprehension Manual Dexterity Practical-Mindedness	Social Insight (Intelligence) Political Value Business Value Social Extroversion Original Thinking Communicative Skills	Academic Intelligence Vocabulary Original Thinking Reading Artistic Value IntellectualValue
Computational	**Artistic**	**Social Service**
Clerical Speed & Accuracy Business Value Social Introversion Academic intelligence	Artistic Value Mechanical Visualization Original Thinking	Social Insight Social Value Religious Value
Scientific	**Musical**	**Clerical**
Academic Intelligence Intellectual Value Original Thinking Mechanical Visualization Mechanical Comprehension	Artistic Value Musical Abilities Original Thinking Mathematical Skills	Clerical Speed & Accuracy Business Value Social Introversion

As a result, we often see the following chain of events become a self-reinforcing, self-perpetuating cycle:

1. Initial involvement in a particular activity can be motivated by environmental stimuli or by personal motive factors, which may include an initial interest in the activity. (Initial interest may be partly due to having adequate capabilities for accomplishing the activity.) [Continued or heightened interest motivates repetition of the activity.]

2. Initial involvement in the activity begins to develop or improve the capabilities involved. [Repetition further develops the capabilities involved.]

3. If capabilities involved in accomplishing the activity are initially adequate or are developed adequately through initial involvement, initial success is experienced. [Improved capabilities enable continued if not heightened success.]

4. Initial success generates pleasure in connection with the activity. [Continued or heightened success generates continued or heightened pleasure.]

5. Pleasure either generates or reinforces interest in the activity. [Continued or heightened pleasure reinforces or heightens interest.]

6. The sequence returns to the first step and recurs. However, in this and subsequent cycles, the [bracketed events] take place.

Although we may have an initial interest in a particular activity, we may or may not have a continuing interest. Continuing interest depends upon these and other factors:

a. the strength of the interest;
b. the strength of competing interests;
c. the levels of capabilities required to accomplish the activity successfully;
d. our existing levels of these capabilities (or our potentials for their development);
e. changes in other personal characteristics;
f. changes in environmental influences;
g. the number of opportunities to accomplish or practice the activity;
h. whether or not further involvement in the activity continues to result in success; and
i. how much encouragement we receive from others when we are not entirely successful.

[Now assess and record your level of interest in each type of vocation or avocation listed in the Personal Inventory Format. After doing so, notice how your interests tend to fall into groups that more or less correspond to your abilities, values, and other characteristics. If you find a pattern of high interests in a particular category, it is possible that you will also be relatively high in the associated characteristics listed in **Exhibit 2**. As in the case of values, your interests in some areas will be high, your interests in other areas will be low, and your interests in the remaining areas will be somewhere between high and low.]

PERSONAL GOALS (AND PLANS)

Personal goals (or objectives) are future-oriented desires or intentions concerning, for example, who one wants to be, where one wants to go in life, what one wants to have, and what one wants to do. They can involve the following areas of life: career; home and family; finances; social relationships; health; spiritual fulfillment; and personal growth and development.

Descriptions of different people's goals vary. For example: Some people have well thought out, clear-cut, prioritized, long- and short-term goals involving each of the seven areas mentioned above. Some have clear-cut goals involving all seven areas, but have not considered their compatibility and priorities. Many have clear-cut goals in some areas but not in others. Many have only short-term goals involving certain areas. Many simply have vague or ambiguous impressions concerning their desires and intentions. And many have few or no real goals.

Setting goals—and doing so properly—is more important than many people realize. When we do not have well-formulated, clear-cut goals, our needs/drives, values, and interests mold our behavior. In doing so, however, they can cause us to waste much valuable time and energy. There are at least three reasons:

> First, because they represent motives involving many areas and activities, they tend to disperse our attention and effort in too many directions (over too broad an area or over too many activities). As a result, we tend to wander rather aimlessly from one activity to another, often failing to finish what we started out to do. Also, because we are involved in so many activities, we (a) are unable to do anything really well, and (b) do too many unimportant things. Not finishing things, not doing things really well, and doing too many unimportant things all waste time and energy.
>
> Second, when we have no goals that will "override" their influences, our needs/drives, values, and interests also tend to channel our behavior in conflicting/incompatible directions. For example, doing certain things to advance one's career can create various problems involving one's home and family life—while doing certain things to improve one's home and family life can create various problems involving one's career. Since goal-setting and planning can prevent behavior in one area from conflicting with and causing problems in another area, the time and energy we must use to solve such problems are actually wasted time and energy.
>
> Third, when we do not have goals that will "override" the "immediate urges" exerted by our needs/drives, values, and interests, the result is "now-oriented be-havior." Essentially, this behavior involves responding to whatever is motivating us at the moment. While such behavior may bring short-term satisfaction, it is basically aimless, short-sighted, and impatient. All too often, therefore, it causes us to do things that we regret later—e.g., make mistakes and create problems that interfere with our better, long-term self-interests. In other words, immediate satisfaction is often attained at the expense of greater long-term fulfillment. By not stopping to think what our long-term best interests might be, and by not setting goals that will channel our behavior in more desirable and ultimately fulfilling directions, we waste considerable time and energy on unimportant and less fulfilling activities.

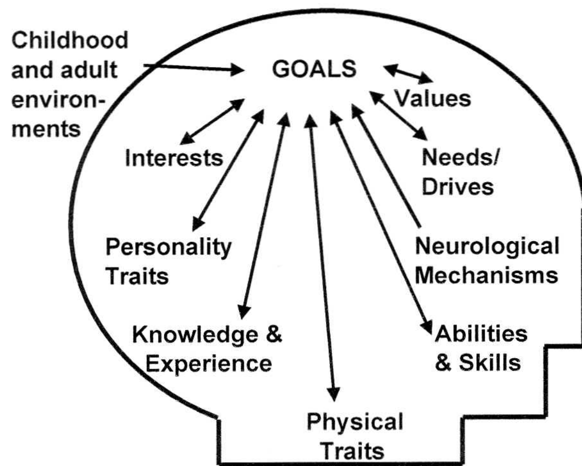
Basically, *personal goal-setting* involves crystallizing future-oriented desires, intentions, or expectations by writing them down on paper in very clear and specific terms. (Long-term goals should be formulated first; short-term goals or "milestones" should be based on long-term goals.) *Personal planning* involves identifying actions that should be taken in order to reach short- and long-term goals. Once personal goals and plans have been formulated, they (a) channel attention and effort in desired directions; (b) increase motivation and effort; (c) help override the "now orientation"; and (d) help save time and energy that otherwise would have been wasted by engaging in unimportant or less fulfilling activities and by having to solve avoidable problems.

As shown in **Figure 10** (on the next page), our goals are influenced by many environmental and personal factors. During childhood, they are influenced by inputs from parents, teachers, other adults, and peers. As we grow older, however, our own personal characteristics and behavior become increasingly influential.

Working together, personal characteristics exert major influences on several aspects of personal goals:

> First, they influence what we want in each particular area of life. (In turn, what we want in one area can affect what we want in other areas. For example, achieving certain financial goals may depend on achieving certain career and/or social goals.)
>
> Second, they influence how much we want of something (e.g., the height, degree, quality, quantity, or magnitude of what we want).

Figure 10: Cause/Effect Relationships Between Goals and Other Characteristics



Third, they influence how much (how badly) we want something. (The level of desire or motivation to achieve one particular goal is usually influenced by the relative importance or priorities we attach to other goals.)

Fourth, they influence when (the time in which) we want to attain something.

Groups of traits influence the various aspects of our goals in many ways. *Examples*:

1. *Needs/Drives, Values, and Interests*: These motive factors can influence all the aspects mentioned above. For example: People who are highest in the economic value (and whose ego needs revolve around economic success) tend to (a) set higher goals in career and financial areas than in other areas; (b) attach higher priorities to career and financial goals; (c) be more anxious to attain these goals; and (d) set shorter time frames for their attainment.

2. *Knowledge and Experience*: Largely because we cannot want what we have not observed, experienced, heard about, or imagined, these factors exert major influences on what and how much we want. They also influence how much and how soon we want something. For example: Compared to those who are less knowledgeable about their profession and the alternative career paths involved, those who are more knowledgeable can tend to (a) set higher (yet realistic) career goals; (b) attach higher priorities to them; (c) assign shorter (yet realistic) time frames in which to achieve them; and (d) write more specific development and promotion plans.

3. *Personal Capabilities and Potentials*: The height or magnitude of a particular goal can be (a) limited by underestimation of one's capabilities or potentials for achieving it, or (b) exaggerated by overestimation. Likewise, the time frame assigned to attainment of a goal can be (a) unrealistically lengthened by underestimation of one's capabilities and potentials, or (b) unrealistically shortened by overestimation.

4. *Personality Traits*: These, too, can influence all the aspects mentioned above. For example: Compared to those who are low in traits such as social conscientiousness, social maturity, and self-control, those who are high tend to (a) set higher and more selfless goals involving other people; (b) assign higher priorities to people-related goals; and (c) assign shorter time frames for their attainment. Also, those who are more future-oriented and self-controlled (are less "now-oriented" and impulsive) generally tend to (a) set higher goals in various areas; and (b) set somewhat longer time frames for their attainment.

5. *Physical Characteristics*: All these can influence what we want, how much, how badly, and how soon, too. For example: Those who are higher than other people in general health and physical attractiveness can tend to (a) set higher goals in career and social areas; (b) assign higher priorities to such goals; and (c) set shorter time frames for achieving them.

As also shown in **Figure 10**, the goals we set can bring about changes in the same characteristics that influence them. *Examples*:

1. Writing very specific, highly people-oriented goals involving social areas—and giving them higher priorities than goals in other areas—tends to focus attention and effort on developing functional interpersonal relationships. Because this usually motivates more frequent interpersonal contact and generates more positive feedback from others, one is very likely to experience the following over time: (a) increases in the levels of people-oriented

characteristics such as social insight, communicative skills, the social and benevolence values, self-control, social conscientiousness, and social maturity; and (b) decreases in the levels of self-oriented traits such as the economic and political values and dominance.

2. Writing very specific goals concerning one's career position and power—and giving them higher priorities than goals in other areas—tends to focus attention and effort on gaining and maintaining power. As a result, one is very likely to experience the following over time: (a) increases in the levels of the political value and the dominance trait; and (b) decreases in the levels of more people-oriented values and personality traits.

Thus, just as in the case of interests, there are "mutually reinforcing relationships" between our goals and other characteristics. To a great extent, we are inclined to formulate goals around our most developed abilities, our highest values and interests, and our most prevalent behavioral tendencies. In turn, the goals we set tend to increase or accentuate the very same characteristics. So before actually establishing goals, it behooves people to (a) analyze their characteristics in some depth; (b) consider how their formulation of goals might be influenced by those characteristics; and (c) ask themselves whether or not attaining the goals they might be inclined to set (based on their present characteristics) would actually result in a more meaningful, fulfilling life.

[Goals have not been included on the Personal Inventory Format. Principles and procedures for effectively formulating personal goals and plans are covered in a segment of the series entitled "Goal-Orientation of Personal Behavior (Personal Motivation)."]

SUMMARY

We are born with various neurophysiological mechanisms that either motivate or enable interaction with our environment. Inborn "drive/emotion mechanisms" are responsible for our basic needs and drives. Certain other inborn mechanisms give us potentials for acquiring knowledge and developing various abilities and behavioral tendencies. During our early years, basic needs/drives motivate relatively simple interactions with the environment. In order to behave, we use mental and physical abilities, knowledge, and experience, and various other behavior patterns—at whatever levels of development they may be at the time. The results of our behavior can be success, failure, or something in between.

Failure usually generates various forms of internal (personal) and/or external (environmental) negative feedback, which signal that our behavior has somehow been inappropriate. The various forms of negative feedback affect emotion mechanisms when they are sensed. As a result, we experience physical pain and/or psychological pain in the form of emotions such as embarrassment, hurt, frustration, discouragement, or anxiety. These feelings, in turn, influence the natures or levels of our abilities, knowledge, experience, values, personality traits, interests, and goals. *Examples*:

1. They tend to form or reinforce negative attitudes—or to reduce positive attitudes—toward the people, things, or activities involved, thereby (a) lowering the levels of associated values, interests, and personality traits, and/or (b) reducing interest in associated areas of knowledge and experience.

2. They negatively influence self-image, thereby (a) lowering the level of self-confidence, and (b) intensifying ego needs.

3. They fail to reinforce the behavior pattern just used, thereby (a) lowering the levels of personality traits involved, and/or (b) reducing the tendencies to use the abilities or specialized skills involved.

4. They signal that the behavior patterns and/or traits that underlie them should be adjusted, improved, or further developed so that we can be more successful in the future.

Success, on the other hand, usually generates various forms of internal and/or external positive feedback, which signal that behavior has been appropriate. The various forms of positive feedback also affect emotion mechanisms when they are sensed. As a result, we feel physical pleasure and/or psychological pleasure in the form of emotions such as pride, fulfillment, or love. These feelings, in turn, influence the natures or levels of our abilities, knowledge, experience, values, personality traits, interests, and goals. *Examples*:

1. They tend to form or reinforce positive attitudes—or to reduce negative attitudes—toward the people, things, or activities involved, thereby (a) raising the levels of associated values, interests, and personality traits, and/or (b) increasing interest in associated areas of knowledge and experience.

2. They positively influence self-image, thereby (a) raising the level of self-confidence, and (b) satisfying ego needs to some extent.

3. They reinforce the behavior pattern just used, thereby (a) raising the levels of personality traits involved, and/or (b) increasing the tendencies to use the abilities or specialized skills involved.

Thus, all personal characteristics are interrelated and interdependent. Together with the external environment, they influence each others' formation, development, modification, and use. We behave as we do, therefore, not just because we have certain abilities—or because we have certain physical characteristics—or because of certain values—or needs and drives—or personality traits—or knowledge and experience—or goals—or interests. Rather, our own and others' behavior is the net effect of all these characteristics operating with and upon each other. Thus, there is no single or simple cause for anyone's doing anything. Individuals are complex systems of characteristics interacting with and being influenced by their environment. (See **Figures 1 and 2**.)

The more aware we are of our own characteristics, and the better we understand what makes us tick, the better we can accept ourselves, capitalize on our strengths, either remedy or compensate for our weaknesses, and make the most of our potentials. Self-awareness and self-understanding are keys to more effective personal development and greater personal achievement and fulfillment. Also, the more aware and understanding we are of others, the better are our interpersonal relationships. In turn, the better our relationships, the greater our personal fulfillment.

[Now that you have completed the Personal Inventory, we recommend that you review your strengths and weaknesses. Should you wish to make adjustments or improvements, refer to a segment of the series entitled "Guidelines for Modifying Personal Traits and Behavior Patterns."]

It is difficult to attribute high accuracy, validity, and reliability to personal assessments. However, if you have been honest with yourself and have given each characteristic thorough consideration, your judgments should be "in the ballpark." We do suggest, however, that you seriously consider contacting a psychological testing service in order to obtain standardized measurements with which your self-image can be compared and perhaps reevaluated. Standardized test scores are more accurate, valid, and reliable than personal assessments.

We also suggest that you consider asking a friend, a parent, or your husband or wife to become familiar with these trait descriptions and then relate how he or she perceives you. Whereas another person's assessments will tend to be subjective and not as accurate, valid, or reliable as standardized test scores, finding out how someone else sees you can be a very useful learning experience. Before actually doing this, however, think about it carefully, keeping several things in mind. First, you may hear some things that you do not want to hear—especially if the other person is truly being honest with you. If this will bother you, or if it will create negative feelings toward the person and perhaps jeopardize your relationship, you might be wise not to do it. (A better approach might be to seek a professional testing service.) Second, if you choose to do it, carefully pick a person who will be honest, trustworthy, objective, fair, constructive, and sincere in the desire to be of assistance. We do not recommend opening yourself up to someone who may (a) have a reason to get even with you, or (b) want to put you down in order to feel superior to you. Neither do we recommend letting yourself be evaluated by a group of people who have not been properly trained to assess traits and interpret behavior.

Regardless of whatever further use you make of the Inventory, the point is that you have taken an in-depth look at yourself in very specific terms—something that few people ever do. Having thought about yourself in these terms will undoubtedly result in greater self-awareness, self-understanding, and self- acceptance. It will also help you become what you have the potential to become. It has provided you with a benchmark from which to begin developing yourself more actively, purposefully, systematically, and effectively.

NOTES:

Appendix A: Intercorrelation Table

	Intellectual	Economic	Social	Political	Aesthetic	Religious	Practical-Mindedness	Achievement	Variety	Decisiveness	Orderliness	Goal-Orientedness	Support	Conformity	Recognition	Independence	Benevolence	Leadership	Vigor	Self-Confidence	Dominance	Sociability	Adaptability	Social Conscientiousness	Mature Relations	Responsibility	Original Thinking	Emotional Stability	Self-Control
VALUED MATTERS			A																										
Intellectual						-								-		+	-	+				-					+		
Economic			-	+	-	-	+	-	-		+				+		-												
Social		-		-		+										-	+	-			-			+	+				
Political		+	-			-											-	+	+		+								
Aesthetic		-				-			+			-				+			-										
Religious (Spiritual)	-	-	+	-	-									+	-	-	+												
"COPING VALUES"			B						E																				
Practical-Mindedness		+						-		-			+					-											
Achievement		-					-		-		-		-	-				+		+	+						+		
Variety		-			+			-			-	-		-		+										-			-
Decisiveness							-				-					+													
Orderliness		+						-	-	-		+		+		-											-		+
Goal-Orientedness					-				-		+			+		-										+			+
INTERPERSONAL VALUES			C						F						H														
Support							+	-							+			-	-	-	-					-	-		
Conformity	-					+		-	-		+	+			-	-	+	-						+		+			+
Recognition		+				-							+	-		-	-					+					-		
Independence	+		-		+	-			+	+	-	-		-	-		-					-							
Benevolence	-	-	+	-		+								+	-	-		-						+	+	+			
Leadership	+		-	+			-	+					-	-			-		+	+	+	+					+		
PERSONALITY TRAITS			D						G						I								J						
Vigor				+	-								-					+			+	+				+	+		-
Self-Confidence								+					-					+			+	+	+		+			+	
Dominance			-	+				+					-					+	+	+		+					+		-
Sociability	-														+	-		+	+	+	+								
Adaptability																				+					+		+	+	+
Social Conscientiousness			+											+			+								+	+			+
Mature Relations			+														+			+			+	+		+	+	+	+
Responsibility									-			+	-	+			+		+					+	+			+	+
Original Thinking	+							+			-		-					+	+		+				+				
Emotional Stability															-					+			+		+	+			+
Self-Control									-		+	+		+					-		-	-	+	+	+	+		+	

[+] A plus sign signifies a positive relationship or correlation between the traits (of the particular group of people whose measurement results appear here). When one trait is high, the other also tends to be relatively high.

[-] A minus sign signifies a negative (or reverse) correlation between the traits (of the particular group of people measured). When one trait is high, the other tends to be relatively low.

[ ] An empty cell signifies either: (a) that no positive or negative correlation was found between the traits (of the particular group of people measured);
(b) that the correlation that was found did not seem high enough to mention;
(c) that the correlation data from several sources conflicted somewhat (partly because of differences among the various definitions of the traits involved), and therefore did not seem conclusive enough to mention; or
(d) that mentioning the correlation did not fit our purposes (because there seemed to be some question as to the correlation's applicability to people in general).

[ ] A shaded plus sign or minuis sign signifies a correlation that we would expect (based upon the definitions of various traits and the available correlation data).

Note A

This table summarizes many positive and negative relationships (or correlations) between various values and personality traits. It has been adapted from intercorrelation tables presented in the references listed in Note B. As indicated in Note B, these correlations were derived from measuerments of specific groups of people (mostly college students). Because the correlations apply *directly* to the people in the groups measured, they do not necessarily apply to *all* persons or groups. In fact, the relationships between traits can differ among occupational groups, men and women, age groups, and people from different social, economic, and cultural backgrounds. Even so, many of these correlations do seem to apply to people in general, regardless of their many differences.

Whereas the correlations shown here appeared high enough and significant enough to include in this table, only the uncircled correlations in blocks B, C, F, G, and I (and the corresponding blocks to the right of the blackened, diagonally aligned cells) were said to be significant at the .01 level of confidence—or occurred 99% of the time in the groups measured.

Note B: References

1. Gordon, L. V., *Survey of Personal Values Manua*l. Chicago: Science Research Associates, 1967.
2. Gordon, L. V., *Gordon Personal Profile Manual*. New York: Harcourt, Brace, and Company, 1963.
3. Gordon, L. V., *Gordon Personal Inventory Manual*. New York, Harcourt, Brace, and Company, 1963.
4. Gordon, L. V., *Manual for Survey of Interpersonal Values*. Chicago: Science Research Associates, 1960.
5. Thurstone, L. L., *Thurstone Temperament Schedule Manual*. Chicago: Science Research Associates, 1953.
6. Allport, G., Vernon, P., and Lindzey, G. *Study of Values Manual*. Boston: Houghton Mifflin Company, 1970.

Block A — from Reference 6 (heterogenious sample of 100 males and 100 females) Block indicates correlations shared by both males and females.
Block B — from Reference 1 (sample of 58 Peace Corps volunteers)
Block C — from Reference 4 (sample of 89 college students)
Block D* — from Reference 5 (sample of 172 executives at a large retail/mail order company)
Block E — from Reference 1 (sample of 387 college students and sample of 617 high school students) Block indicates correlations shared by both groups.
Block F — from Reference 1 (sample of 167 college students)
Block G* — from Reference 1 (sample of 167 college students)
Block H — from Reference 4 (sample of 275 college students)
Block I* — from References 2, 3, and 4 (sample of 144 college students)
Block J* — from References 2 and 3 (sample of 640 college males and 315 college females)
from Reference 5 (sample of 694 college males and 161 college females)

* Cited sources do not include references to self-confidence, adaptability, and social conscientiousness, traits found in either the Bernreuter Inventory or the Humm-Wadsworth Inventory.

THE INDIVIDUAL: A SYSTEM OF CHARACTERISTICS
Selected References

Adler, Alfred, *The Practice and Theory of Individual Psychology* (New York: Harcourt, Brace, 1927). (1920) Also: *The Individual Psychology of Alfred Adler: A Systematic Presentation in Selections from His Writings*, Ed. by H. L. and R. R. Ansbacher (New York: Basic Books, 1956).

Alderfer, C. P., *Existence, Relatedness, and Growth: Human Needs in Organizational Settings* (New York: Free Press, 1972).

Allport, G., Vernon, P., and Lindzey, G., *Study of Values Manual* (Boston: Houghton-Mifflin, 1960).

Binet, Alfred and Simon, T., "Application des Methodes Nouvelles au Diagnostic du Niveau Intellectuel Chez des Enfants Normaux et Anormaux d'Hospice et d'Ecole Primaire," *Annee Psychol*., 1905, II, 245-336. Also: Binet, A., *L'Etude Experimentale de L'Intelligence* (Paris: Schleicher, 1903). Reprinted 1922.

Cannon, *Bodily Changes in Pain, Hunger, Fear, and Rage* (1929).

Cattell, Raymond B., Eber, Herbert W., and Tatsuoka, Maurice M., *Sixteen Personality Factor Questionnaire (SPFQ)* (Champaign, Illinois: Institute for Personality and Ability Testing, 1970).

Eccles, John C. (ed.), *Brain and Conscious Experience* (New York: Springer-Verlag, 1966).

Festinger, Leon, *A Theory of Cognitive Dissonance* (Evanston, Illinois: Row, Peterson, 1957).

Freud, Sigmund, *The Ego and the Id* (London: Hogarth Press, 1927).

Georgopolous, B. S., Mahoney, G. M., and Jones, N. W., "A Path-Goal Approach to Productivity," *Journal of Applied Psychology*, 1957, 41, 345-353.

Gordon, Leonard V., *Manual for Survey of Interpersonal Values* (Chicago: Science Research Associates, 1960).

Gordon, Leonard V., *Survey of Personal Values Manual* (Chicago: Science Research Associates, 1967).

Gordon, Leonard V., *Gordon Personal Inventory Manual* (New York: Harcourt, Brace & World, 1963).

Gordon, Leonard V., *Gordon Personal Profile Manual* (New York: Harcourt, Brace & World, 1963).

Gough, Harrison G., *Manual for California Psychological Inventory (CPI)* (Palo Alto, California: Consulting Psychologists Press, 1975).

Guilford, *Fields of Psychology* (1950).

Harris, Thomas A., *I'm OK — You're OK* (New York: Harper & Row, 1969).

Head, Henry (with Rivers, W. H. R., Holmes, G., Sherren, J., Thompson, T., and Riddoch, G.) *Studies in Neurology* (2 vols.) (London: Oxford University Press, 1920).

Herzberg, Frederick, *Work and the Nature of Man* (Cleveland, Ohio: World Publishing Company, 1966). Also: "One More Time: How Do You Motivate Employees?" *Harvard Business Review*, January-February 1968, 53-62.

James, William, *Principles of Psychology* (1890).

Jasper, H. H., *Reticular Formation of the Brain* (Boston: Little, Brown, 1958).

Jung, Carl G., *Collected Papers on Analytic Psychology*, Ed. by Long, Constance E. (London: Bailliere, Tindall & Cox, 1917).

Kohler, W., *Gestalt Psychology* (New York: Liveright Publishing Corp., 1947).

Kuder, Frederic, *Administrator's Manual - Kuder Preference Record* (Chicago: Science Research Associates, 1948). [Manual revised 1960, 1972.]

Lange, Garl G., *Die Gemutsbewegungen, ihr Wesen und ihr Einfluss auf Korperliche, Besonders auf Krankhafte Lebenserscheinungen* (Wurzburg: Kabitzsch, 1910). (1885) Also: Lange, C. G. and James, W., *The Emotions* (Baltimore: Williams & Wilkins, 1922). (1884)

Lewin, *Principles of Topological Psychology* (1936). Also: *A Dynamic Theory of Personality* (1935).

Maslow, Abraham H., "A Theory of Motivation," *Psychological Review*, 1943, 50, 370-396. Also: *Motivation and Personality* (New York: Harper & Bros., 1954).

McClelland, David C., *The Achieving Society* (Princeton, New Jersey: D. Van Nostrand, 1961); "Business Drive and National Achievement," *Harvard Business Review*, July-August 1962, 99-112. Also: McClelland, David C. and Burnham, David H., "Power is the Great Motivator," *Harvard Business Review*, March-April 1976, 100110.

McDougall, *Outlines of Psychology* (1923).

McKay, D. M., "Conscious Control of Action," *Brain and Conscious Experience* (New York: Springer-Verlag, 1966).

Pavlov, *Lectures on Conditioned Reflexes* (International, 1928).

Penfield, W. and Roberts, L., *Speech and Brain Mechanisms* (Princeton, New Jersey: Princeton University Press, 1959).

Porter, L. W., and Lawler, E. E., *Managerial Attitudes and Performance* (Homewood, Illinois: Irwin-Dorsey, 1968).

Strong, *Vocational Interests of Men and Women* (1943).

Terman, Lewis M., *The Measurement of Intelligence: An Explanation of and a Complete Guide for the Use of the Stanford Revision and Extension of the Binet-Simon Intelligence Scale* (Boston: Houghton Mifflin, 1916).

Thurstone, L. L., *Thurstone Test of Mental Alertness – Examiner Manual* (Chicago: Science Research Associates, 1968).

Thurstone, L. L., *Examiner Manual for the Thurstone Temperament Schedule* (Chicago: Science Research Associates, 1953).

Triadal Equated Personality Inventory (TEPI) (Munster, Indiana: United Consultants / Psychometric Affiliates).

Vroom, V. H., *Work and Motivation* (New York: Wiley, 1964).

Watson, *Psychology from the Standpoint of a Behaviorist* (1929).

Wechsler, D., *The Measurement of Adult Intelligence* (Willimans & Wilkins, 1944).

Wertheimer, Max, *Productive Thinking* (New York: Harper & Row, 1959). (1945)

ADDITIONAL REFERENCES

Bootzin, Richard R., *Psychology Today* (New York: Random House, 1983).

Eccles, J. C., *The Neurophysiological Basis of Mind* (London: Oxford University Press, 1953).

Gleitman, C., *Basic Psychology* (New York: Norton, 1983).

Hebb, Donald O., *A Textbook of Psychology* (Philadelphia: W.B. Saunders Co., 1959).

Hilgard, E. T. (ed.), *Theories of Learning* (Chicago: University of Chicago Press, 1964).

Lawson, C. A., *Brain Mechanisms and Human Learning* (Boston: Houghton-Mifflin, 1967).

Scheinfeld, Amram, *Your Heredity and Environment* (Philadelphia: Lippincott, 1965).

Wortman, C. and Wortman, P., *Psychology* (New York: Random House, 1985).

White, R. W., *The Abnormal Personality* (New York: Ronald Press, 1964).