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SELECTED CHAPTERS FOR A GENERAL PSYCHOLOGY

TEXTBOOK: A CURRENT THREEFOLD APPROACH

A Dissertation Submitted in Partial Fulfillment
of the Requirement for the Degree of
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Martin G. Olsen

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THIS DISSERTATION WAS SPONSORED

BY

Dr. Anne W. Schenkman
Major Advisor

RESEARCH AND EXAMINING COMMITTEE

_Anne W. Schenkman_____

_Richard L Bear_____

_____

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DEAN OF THE GRADUATE SCHOOL

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ABSTRACT

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This dissertation is intended as a short textbook
of general psychology to be used in college introductory
courses. It's unique characteristics rest in: (1) its
brevity and readability, (2) its presentation of more than
one school of psychological thought, and (3) its content
material. These characteristics are treated in the three
following paragraphs.

Seven chapters make up this proposed textbook.
Therefore the total text can easily fit into the time
allotment of a college or university following the quarter
system. Moreover, each chapter can be subdivided into
shorter sections to meet the longer period of time where
the semester system is followed. Its brevity makes the
text less costly for the student, and allows more instruc-
tional options for the teacher. Because the chapters are
often aimed at the students' personal interests this text
is less encyclopedic and stilted than many current text-
books on the market. For many students, an introductory

course in psychology is required, but they may have no plans to pursue further advanced psychology courses. This text is thus written for the student who will have only one psychology course, as well as for the student who will go on to advanced studies in psychology.

Three major schools or approaches of psychology are presented throughout this text: behaviorism, the psycho-analytic or Freudian approach, and the humanistic-existential "third force". This threefold approach exposes the student to contributions and thoughts from various sectors of the total science of psychology rather than presenting merely one professional bias as may be the case in most existing texts. Each of the first three chapters presents a full explanation of one of the three major current schools of psychological thought. Thereafter every chapter includes a section explaining how each school views the main topic of that chapter.

The seven chapters include the following topics:

Chapter I. Behavioristic Psychology. Background and contributions of Pavlov, Watson, Thorndike, and Skinner. S-R learning theories. Classical and operant conditioning. Behavioristic therapies. Criticisms of behaviorism. Be-havioristic viewpoint of man. The future of behaviorism.

Chapter II. Psychoanalytic Psychology. Psychoanalytic viewpoint of man. Contributions of Freud, Adler, Jung, and

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neo-Freudians. The unconscious. Motivation. Frustration, anxiety, defense mechanisms. Neuroses, character disorders, psychoses. Therapy techniques. Criticisms. The future of the psychoanalytic school.

Chapter III. <u>Third Force Psychologies</u>. Humanistic viewpoint of man. Determinism vs. freedom. The healthy personality; Maslow. Individual and group counseling; Rogers, Perls. Phenomenological psychology; Combs and Snygg. Existential psychology; May. (Cognitive and biophysical psychologies.) Humanistic education and counseling. Criticisms. The future -- a fourth force?

Chapter IV. <u>Developmental Psychology, Birth through Childhood</u>. Physical development: heredity and environment, sensory-motor functions, communication skills. Development of personality: emotions, perceptions, socialization.

Chapter V. <u>Developmental Psychology, Adolescence through Old Age</u>. Physical and psychological aspects of adolescence. Emotions, motives, identity, sexuality. Early adulthood. Marriage, family, love, the single person. Adult values. Middle age. The aging adult.

Chapter VI. <u>Psychological testing</u>. Measurement and descriptive statistics. Tests of intelligence, special abilities, personality. Implications of testing. Hints on taking a standardized test.

Chapter VII. **Human Differences.** History and research methods of differential psychology. Individual differences: types, traits, intelligence, achievement, aptitude, family resemblance. Group differences: age, sex, the mentally retarded, the gifted, Creativity.

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INTRODUCTION

This dissertation presents seven selected chapters to be incorporated into a proposed textbook to be used in teaching introductory or general psychology to under-graduate students. The topics of these chapters were selected to be of interest to the prospective student and also to represent a scope of introductory psychology material. Any topics which were omitted were judged to be better covered in a more advanced psychology course.

College students' interests in psychology seem to center upon the human element of life -- often their own lives. For example, they want to better understand what their life style is and how it became that way. Therefore two chapters on developmental psychology are being included. These chapters show not only the customary subject area, but they also incorporate human love and married life. Students also are concerned with being mentally healthy and growth oriented, so Chapters II and III include these topics. One final example of students' concerns is the practical matter of their education. Therefore the first three chapters contain some varying viewpoints on learning and education.

Having taught general psychology at four different colleges using six different textbooks, the writer has discovered some glaring inadequacies in texts now on the market. Many of the texts are too long and too expensive to be suited to a college introductory course. In many colleges and universities, including the University of Northern Colorado, the course is scheduled for only ten weeks or less. This situation poses a frustration to the teacher who must choose only certain chapters to cover. Meanwhile the student must purchase an expensive book which is larger and more encyclopedic than the course requires. Since the writer has a desire to continue some teaching in the area of general psychology he would find it personally satisfying to have his own students supplied with a text which he has prepared.

A further rationale for this undertaking is that many general psychology texts marketed today seem to slant their presentation according to one particular school of thought. Other texts imply that the study of psychology is complete just as presented in the text at hand. Such attitudes, perhaps unintentional, may mislead the student into assuming that the field of psychology is frozen and not open to changing views. It is therefore intended that this textbook incorporates a threefold approach to psychology. The three mainstreams of modern psychology

include **behaviorism**, the **psychoanalytic** or Freudian school, and the humanistic-existential approach called the "**third force**". Since psychology departments at many schools favor only the behavioristic approach, this dissertation might be a vehicle to expose to the student all three approaches.

The first three chapters explain the approaches of the three main schools or forces in current psychology. Thereafter each chapter concludes with a section explaining how each school views the main topic of that chapter. In this manner the reader is continually presented particularized applications of the three schools' approaches which were initially shown in general with the first three chapters.

Finally, the typical class of beginning psychology contains only a small percentage of students majoring in psychology. For the majority of college students the introductory psychology course is often required and is also terminal in their formal study of this science. These chapters are therefore aimed at this majority. Unlike several standard psychology texts which students find lengthy, stilted, and tediously academic, this short text is written to be less formal, more readable, and also pertinent to the student. Practical applications are frequently made to the reader. Unfamiliar and specialized

words are defined within the text itself. The text does
not ignore the scholarship necessary to the discipline of
psychology, and in fact it attempts to interest the
student to further pursue advanced psychological studies.

CHAPTER I

BEHAVIORISTIC PSYCHOLOGY

The term "behaviorism" is more than the name of America's largest school of psychology. Behaviorism describes in a word what psychologists of this school are concerned about -- behavior. Human behavior and animal behavior, from brain waves to running races, can be studied objectively because it can be observed, it can be measured, and it is predictable. Behaviorists do not only study behavior, but they also are concerned with changing the patterns of behaving.

What is behavior? It is movements of the muscles and secretions of the glands. Academic and scientific behaviorists believe that all human behavior can ultimately be reduced to muscular movements and glandular secretions. What about thought? Thought, according to many behaviorists, is subvocal speech spoken to oneself and is therefore subject to objective study. How are emotions and feelings explained since they cannot be directly observed? They can be observed in the changes they produce in our behavior. Glands react with the onset of emotion to secrete enzymes, sugars, tears, etc..

Muscles contract in the stomach and they also quicken the heartbeat. Ultimately all of man's behavior, even our inner behavior, is considered as subject matter for psychological study by behaviorists.

Men in the History of Behaviorism

The modern science of psychology itself had its formal beginnings in 1879 when Wilhelm Wundt began the first experimental psychology laboratory in Germany. Wundt was a bearded physician who turned philosopher and wrote over 50,000 pages during his lifetime. Wundt and his colleagues were mostly interested in man's conscious experiences -- his sensations, feelings, and thoughts. Although this approach, called introspection, was popular in European psychology, American psychologists became more interested in what people <u>did</u> than what they <u>felt</u> and thought.

Ivan Pavlov

Ivan Pavlov (1849-1936), the Russian physiologist and Nobel prize winner, influenced the direction of behaviorism which was popularized in America by John B. Watson. Pavlov's famous experiments with dogs introduced the subject of <u>stimulus-response</u> <u>psychology</u> (S-R psychology) which explains in behavioral terms how learning takes place to change our behavior.

A stimulus is anything which causes a response to occur in a person or animal. Simple physiological reflexes provide good examples of stimuli (plural of stimulus) and responses. These physical reflexes are basic to understanding S-R psychology. For example, the stimulus of a doctor's small rubber hammer tapping the knee tendon produces the response of a knee jerk. The stimulus of sudden bright light causes the response of an eye's pupil to become smaller (pupillary constriction).

Pavlov observed that the stimulus of food caused his dogs to have the response of increased salivating. But he also noticed that his dogs would begin to salivate when they saw the food dish or when they heard Pavlov's approaching footsteps to feed them. The dog food was an unconditioned response (UR). Unconditioned means that no learning (conditioning) was necessary for the stimulus to evoke a response in the dogs. The dish and footsteps, through the dogs' experience, became a substitute or signal for the food. Pavlov next began to connect (associate) the sound of the bell with the presence of food. In time Pavlov was able to produce salivation in the dog by merely ringing the bell without having to present the food. The bell in this case is called the conditioned stimulus because the dog learned (was conditioned) to evoke the response of salivating at each

stimulus of the bell just as the dogs had done with the stimuli of the dish and footsteps. Thus Pavlov produced a conditioned reflex between the stimulus of the bell and the response of the dogs' salivating. This conditioned reflex would weaken or disappear (extinguish) after a while if no food were ever given to the dog when the bell rang. Therefore the food was necessary, at least once in a while, to reward (reinforce) the dog to repeat salivating at each sound of the bell.

John B. Watson

The American emphasis influenced by Pavlov, on what people do (what their observable behavior is) led to the movement of applying psychology rather than just introspecting about people's sensations and thinking as Wundt and his colleagues did. This psychology of behavior had a great spokesman who gave it the name of behaviorism. He was John B. Watson (1878-1958) who wrote: "Psychology, as the behaviorist views it, is a purely objective, experimental branch of natural science which needs introspection as little as do the sciences of chemistry and physics" (1913). With his clarion call to psychologists in 1913 to place emphasis on man's observable behavior rather than on man's private states of consciousness, Watson began the American movement of behaviorism.

Since that time thousands of psychologists have taken up the banner of behaviorism and assert that human behavior can be observed and studied as one would study the behavior of a machine. Inner conscious experiences of feelings and sensations are not entirely objective and therefore not scientifically valid for study.

Watson's refusal to admit anything subjective into psychology led him to also reject instinctive motivation. For example, Watson rejected the Freudian teaching (see Chapter II) that man's human nature leads him by instinct to be sociable or to be hostile. Rather Watson stated that our behavior is "learned" (conditioned) because of our environmental contacts such as parents, peers, punishments, etc. All we are born with are only a few reflexes, not instincts, nor any particular mental abilities or traits. As we grow up we learn various behaviors, good and bad, so that it is the environment which determines us more than any inborn traits.

In these brief statements about Watson the influence of Locke's thinking can be detected in Watson's teachings. John Locke's (1623-1704) philosophy that a man is born a blank slate (tabula rasa) upon which the senses receive impressions is echoed in behaviorism's view of man's neutral nature at birth.

Thorndike's Learning Theory

Watson was not alone in pioneering the principles of behaviorism in this country. Theories of learning were introduced which incorporated behavioristic principles to explain how people learn new concepts and behavior.

The above account of Pavlov's classical conditioning presented some basic terms and ideas to help understand the learning theories proposed by some educational psychologists. One such theory of learning was proposed by the behaviorist Edward Thorndike (1874-1949) who pioneered in animal and human learning at Columbia University. Thorndike proposed that animals learn by trial and error. He gathered up some stray alley cats in New York City to use in his experiment about animal learning. His landlady did not like Thorndike's cat friends. But the kindly William James, for years America's leading psychologist, took Thorndike's cats into his own basement and provided space at Columbia for Thorndike to work on his now famous cat puzzle box.

The experiment was simple. Thorndike constructed a box with a door which could be opened by the cat pushing a lever. Of course the cat did not know about the lever at first, so it would claw at the sides of the box, snarl, and go through other feline antics until it accidently stepped on the lever which opened the door of the puzzle

box and allowed the cat to go free. The next time the cat was placed back in the box it found the lever more quickly and was freed sooner. After a few more trials, the cat would go directly to the lever, press it, and get out of the box immediately. The cat had learned through trial and error. Thorndike then theorized the law of effect which states that when a response (e.g. pressing the lever) is followed by a satisfying reward (e.g. freedom from the box), the response is likely to occur again because bonds of learning are built up by association between the stimulus situation and the rewarding response. The cat would make various responses to his confining situation in the box. He snarled, scratched, hissed, and he also pressed the lever. Only this latter response was rewarded and thereby became strongly learned. Gradually all the other responses faded away (extinguished) because they were not rewarded or reinforced.

Thorndike's animal experiments explain learning as a connection (association) of bonds built up between a stimulus and a response. Learning produces change(s) in the behavior of animals and humans. Through this learning process of associationism human behavior is changed and modified in various ways. Education is a good example. If a student has had good associations between the stimulus situation of studying and the satisfying state of

rewarding responses from newly gained knowledge, or insights, or even high grades (a good reinforcement!), he will then be likely to continue his studies. Our education system reflects other applications of Thorndike associationism. School teachers use repetition and drills (as in spelling and math), and also workbooks and tests to strengthen bonds of learning in pupils and thereby modify (improve) their academic behavior.

B. F. Skinner

This discussion of learning or conditioning leads to the work of B. F. Skinner (1904-), perhaps today's leading exponent of behaviorism. Skinner too designed a box in which rats (or other animals -- or even humans for that matter) can be conditioned. The Skinner box has a lever for a hungry laboratory rat to push which will release a pellet of food. Skinner's rats, unlike Thorndike's cats, remain inside their box. (This procedure is undoubtedly quite wise and protective for the rats if students are doing cat and rat experiments in the same lab.)

The rat in a Skinner box must first learn to press the lever which releases the food pellet. He learns to respond correctly through the process of shaping which employs the method of successive approximations. Shaping

is done by rewarding the rat with a pellet each time he moves closer to the lever. We have all played the game of "Hot and Cold" when a move or a guess in the right direction is rewarded by the other person telling us, "You're getting warmer." Each time a rat's behavior comes closer (approximates) to the desired goal, it is rewarded. Thus shaping takes place.

When the rat would press the lever correctly, Skinner at first would reward it with a pellet at each press the rat made. This is called total reinforcement. (A cartoon a few years ago showed one rat in discussion with another rat. The caption read, "Have I got that guy conditioned. Every time I press the lever he gives me a pellet.") Later on Skinner discovered that rats (and humans also) are shaped even more efficiently if the reward is given only once in a while. This is called partial or intermittent reinforcement. Thorndike would have predicted stronger responses resulting from total reinforcement. Partial reinforcement is noted in every day life establishing habits in us and shaping our behavior. For example, to give a child a candy treat only on special occasions is more effective than giving the treat every few hours, or even every day.

Partial reinforcement explains the conditioned behavior of a fisherman who waits patiently for a bite

which he knows comes only once in a while; or of a gambler who plays on and on in hopes of a big win; or of a salesman who is reinforced only occasionally with an order. Partial or intermittent reinforcement can also explain how superstitions take hold. Many people walk under ladders on Fridays and no bad luck occurs. But a certain percentage of these people may experience bad luck afterwards by coincidence. Bad fortune need not occur after each walk under a ladder for these people to begin believing in this superstition. The occasional report of bad luck from such unlucky people is enough reinforcement to convince many others of this superstition and so the superstition spreads. Once more intermittent reinforcement does its job. Few people ever consider the good luck experienced by people who also walk under ladders. But then we have rabbits' feet, four leaf clovers, and lucky charms to explain good fortune. (It may be best to stop this discussion here before getting into those who religiously follow their horoscope.)

Operant conditioning differs from classical conditioning. Much of our behavior is shaped by the Skinnerian process called operant or instrumental conditioning, where our response does not depend upon a special stimulus like the bell which evokes the responses in Pavlov's classical conditioning. Rather in operant

conditioning the experimenter waits for the animal or
person to <u>emit</u> spontaneously the correct response and then
he reinforces that response.

College teachers are often accused of using
operant conditioning on their students. Reinforcement in
terms of praise for the student and also good grades are
given when the student emits correct responses. On the
other hand, there is more than one instance where
students have used conditioning to shape the behavior of
their instructor. A little gift or "thank you" after
receiving an A or other forms of "polishing the apple"
might fall into the catagory of reinforcements which shape
a teacher's favorable behavior toward a student. But a
better example is the time a whole class conditioned their
professor to stand at one particular place in the class-
room while he lectured. While standing in that one spot
the professor was reinforced with good attention from the
students. They would take notes furiously, laugh at his
jokes, and be very attentive. But whenever the prof would
wander off to another part of the classroom, the students
would act bored, stop taking notes, and generally tune him
out. After a short time of this operant conditioning he
was constantly standing in that one spot. The students
literally had their prof just where they wanted him.

A similar classroom experiment in conditioning can

be easily done. A student is sent out of the room to think of various nouns. While he is out, the class agrees to reinforce (by showing interest and approval) only nouns of living things. The student is called in and begins reciting his words. Boredom and disinterest are registered by the class at each word which is not a noun of something living. Soon the student is giving only the words the class wants. The same tactic of operant conditioning can be used to reinforce reciting words of only geographic places, proper names, items of a certain color, and so forth.

In his novel <u>Waldon II</u>, Skinner presents a Utopian society which has been shaped by operant conditioning in the areas of marriage, work, play, raising children, ethics, and even artistic skills. His conception is a large rural community where democracy is replaced by behavioral engineering. Skinner by no means would propose a society with a sinister Big Brother watching and inhumanly shaping the behavior of the citizens. On the contrary, B. F. Skinner is a benevolent behaviorist who has already aided society with his contributions. Two of these contributions are teaching machines and behavior modification.

<u>Teaching machines</u>. The principle of the teaching machine (programmed learning) is based on Skinner's

operant conditioning -- reinforcing a correct answer emitted by the pupil. An individual student sits in front of a teaching machine which present questions to the child. If the pupil makes the correct response to a question, he is reinforced by being permitted to move on to the next question. If he selects a wrong answer, he tries again until he answers correctly before being allowed to proceed. Many schools are using teaching machines to help the slow learner and also to challenge the limits of the bright students. Programmed learning is a good device to permit students to learn at their own pace.

Behavior modification. Modifying a person's behavior by shaping is seen by behaviorist psychologists as a very effective learning technique and also as a therapy. Here "learning" means a change in the way a person acts or acquires a new habit of behavior. Some non-behaviorist psychologists may view behavior modification as manipulating someone against his will and therefore ethically questionable. But all will agree that this technique does show dramatic results with certain problems.

Behavior shaping is based on two Skinnerian principles: (1) reinforcement and (2) learning by successive approximation. Being already familar with these two concepts let us examine how they are applied in

the case of the institutionalized mentally retarded child who is, at best, a very slow learner. The attendant determines that the child likes candy or soda pop which then becomes the child's reward or reinforcement. (With normal adults good reinforcers are praise, money, or any other satisfying reward.) Presume the child is being conditioned to wash his hands -- a behavior which may take weeks to shape. Whenever the child's hand gets close to the bar of soap, the attendant will either put a piece of candy or squirt some soda pop in the child's mouth. If the child touches the soap he is reinforced again. If he picks up the soap, again some candy or soft drink. If he turns on the water, more reinforcement. This gradual learning in small steps (successive approximation) is often tedious, but slowly the child's behavior is being shaped (modified) to an optimum level in the performance of hand washing. As the child's behavior becomes more efficient in the first phases of reaching for the soap and turning on the water, the reinforcement may become less regular (more intermittent) and more concentration will be placed on the later stages of hand washing with accompaning successive approximations and reinforcements. Gratifying results have been noted with shaping the behavior of retarded persons for dressing, eating, speech, etc. Behavior modification is also used in therapy with

people who are not mentally retarded, but who may suffer
from excessive fears or any other inappropriate behavior.

Other Behavioristic Therapies

Behavior modification may currently be the most
popular but not the only therapy used by psychologists of
the behavioristic school. All action therapists, as they
are collectively called, (as distinguished from the
insight therapists to be discussed in Chapters II and III)
have a certain pattern. The therapist will first define
the person's problem or symptom. He next calculates a
specific way to change the person's behavior. Finally,
after the therapy, he checks out how effective it was.
Thus the therapist not only changes the client's behavior,
but he has determined for the client what that behavior
shall be. The ethical question therefore is often raised
as to how much control a therapist alone should use to
change a client's direction of behavior. This question
will be discussed at the end of the chapter. (A similar
question is also raised in education regarding a teacher's
deterministic ways with his or her students.)

Besides behavior modification, two other treatments
of therapy can be mentioned: counterconditioning and
extinction. Both of these methods are used to relieve
strong fears (phobias), sexual problems, and other
anxieties.

<u>Counterconditioning</u>. When one behavior or feeling is replaced with another that is antiethical to it the technique is called counterconditioning (London, 1969). A bad or useless feeling like fear can be replaced by a good or constructive feeling such as relaxation. The underlying principle here is that both fear and relaxation cannot coexist simultaneously in a person. One method of counterconditioning is called <u>systematic desensitization</u>, a technique developed by Joseph Wolpe (1958). Three phases are incorporated into this technique wherein the therapist manipulates the client's imagination. First, a list is made of the client's fear producing thoughts. These thoughts are then ranked highest to lowest with the strongest fear as the top item, the second strongest next, and so forth. For example, the client's most fearful though may be picturing her husband in his coffin. Next down on her list would be attending a burial; then reading obituaries; then driving past a cemetary. The list would continue down until the lowest items of fear might be seeing a hospital or an ambulance.

The second phase of desensitization is teaching the patient deep muscle relaxation. When patients have learned to reach a state of bodily calm on their own, the final phase can begin.

The third part of this treatment consists of the

therapist asking the relaxed patient to imagine a mental picture of the lowest item on the list, e.g. the ambulance. If the patient experiences too much anxiety, she signals the therapist by raising her finger who then discontinues the image until the relaxed state is regained. When she can make it through the lowest item without discomfort, they move up to the next fear-producing thought and so forth systematically until she can remain relaxed (desensitized) with each item on the list.

Obviously this treatment may take weeks or even months to complete, and many people who do succeed through this therapy may later relapse back into their former fears. But many behaviorists have used systematic desensitization with dramatic results to remove fears. Wolpe considers his therapy as a behavioristic approach, but others feel it should be classed as cognitive or as phenomenological (see Chapter III).

Another type of counterconditioning therapy is aversive learning. Unlike systematic desensitization which seeks to replace an unpleasant experience (fear) with a pleasant one (calm), aversive learning seeks to replace a pleasant condition (e.g. drinking alcohol) with an unpleasant experience (e.g. nausea). The patient is given a nauseant drug, and just before it begins to work, he is given a drink of liquor. If this procedure is repeated

several times, the patient soon begins to associate drinking with getting sick and vomiting. Hopefully he will thereby have counterconditioned a pleasant sensation with an aversive experience and discontinue drinking alcohol in the future.

Extinction. Another method of therapy, extinction, works differently than counterconditioning. Extinction does not entail substituting one behavior or feeling with another. Rather, as its name implies, extinction therapy aims at simply eliminating the inappropriate behavior. In simple terms, behavior which has been learned can be unlearned (extinguished).

Recalling the former discussion of S-R learning, it will be remembered that the strength of the response decreases when no reinforcement is given. Therefore to extinguish or eliminate some inappropriate behavior (e.g. stubborn pouting of a child) do not reinforce that behavior and certainly withdraw the reward (e.g. by not paying attention to the child's antics; and certainly not giving in to his unreasonable demands).

Extinction often works better than punishment because even punishing a child is still paying attention to him. Notice how quickly a person will discontinue telling "funny stories" if you withdraw the reinforcement of your laughing. Certain wives have been successful in

in extinguishing a husband's habit of being late for
dinner. A few cold meals on the table is sometimes enough
to eliminate his tardiness. None of the above
behavioristic therapies comes with a written guarantee for
success, especially when used by an untrained wife or
parent. Unfortunate backfiring can occur, even for the
experienced psychologist at times. So if you use these
techniques, you do so at your own risk. Better yet,
consult your local friendly behaviorist.

Other behavioral controls and therapies are too
numerous and often too sophisticated to give adequate
review here. They form a list of items including electric
shock, hypnosis, drug therapy, computor therapy, surgery,
and electrical stimulation of the brain (ESB).

Criticisms of Behavioristic Therapy

Behaviorists, like psychologists of any distinct
professional bias, are subject to evaluative criticism by
themselves and by others. A few objections to their
techniques are:

1. Learning theories, still only in the theory
stage, should not become hard and fast scientific laws
when adopted by behaviorists to "prove" their point.
Human behavior may include more than a collection of
responses to stimuli.

2. Their methods of therapy treat only the outward symptoms of a person's behavior and not the person's basic and deeper problems. Man is more than a behaving machine.

3. Often when one inappropriate symptom is eliminated it pops up again under a different disguise. (e.g. removing a nervous twitch may result in adding an ulcer.)

4. Because much behavioristic research is done with animals, it is often presumptious to assume that human behavior will closely correspond to animal behavior.

5. The behaviorist plays "God" in determining what is right and wrong behavior for their client, and then manipulates that person's behavior.

These criticisms of behaviorist methods, especially the last one, leads into a consideration of the philosophy of man to which many behaviorists subscribe.

Behavioristic Viewpoint of Man

Usually a chapter in a book begins with a certain philosophy or theory. But behaviorists regard themselves more in a scientific model than in any philosophical framework. Therefore this chapter can conveniently be concluded and summarized by piecing together some basic behavioral viewpoints of man.

Man is neutral. To the behaviorist, man is born into this world as neither good nor bad. He is essentially neutral. Man can turn out good or he can turn out bad depending upon his environment. This environment includes every outside influence on man's behavior -- the diet he eats, parental controls, schools attended, people who influence him, and so forth. S-R behavioral learning theories see man's environment as countless stimuli upon man to which he responds. These responses **are** his behavior. Therefore man is **determined** by his environment.

Determinism. The extreme viewpoint of behavioristic determinism holds that man is not really a responsible person -- he is not ultimately responsible for his own acts. In short, man has no free will. He is only the product of his environment and is completely determined by past conditioning. If all his past conditioning could be analyzed and programmed into a computer, then every future response he makes could be caused or determined, and also be predicted accurately, given the necessary stimuli. The behaviorist psychologist who believes this way about the nature of man will also act deterministically toward man. In the eyes of other psychologists an ethical question is thereby raised. Does the psychologist have the right to determine the behavior of another human being?

Like every ethical question, two sides can be seen in the moral issue of behavioristic determinism. First, from the side of the behaviorist, it is not just allowable, but it is helpful to determine another's behavior. Following the assumption that since man is born in sort of a neutral undertermined condition, man's whole behavior is actually being shaped all along by his environment. Is it not then a function of a professional psychologist who is skilled in behavioral engineering to correct faulty behavior in others? Does not the behavioral therapist have the right, especially if asked by the patient, to manipulate either the patient or his environment so that more appropriate adaptation to the environment may result? If the patient has poor ability to discriminate stimuli, or if he makes inappropriate responses, the behaviorist himself assumes the responsibility to determine what is right for this person. As one would correct a poorly performing machine, the behaviorist, by conditioning techniques, corrects a poorly functioning person.

The other side of the deterministic argument is held by the non-behaviorists. They believe that man is influenced by his environment, but is determined by other human forces ranging from inner drives to free will choices. The position of these psychologists will be examined further in Chapters II and III.

The American dream. Behavioristic thinking has easily become the dominant psychological force in America since the time of Watson. Behaviorism has fit well into the American ideals of equality, faith in progress, unemotional practicality, and better ways to do better things. Behaviorist implications for our society are staggering. Some effects of behaviorism in education and child rearing have already been mentioned. In addition everyone witnesses daily the conditioning efforts of advertising upon our lives. Shoppers are reinforced with bargains, coupons, and gift stamps. Rewards and punishments are attempts to change the behavior of naughty little children as well as hardened criminals. The principles of conditioning (associating a response to a stimulus) are seen in public relations, training athletes, or in political campaigns. For example, if a politician repeatedly uses words like "radical", "leftist", and "anarchist" when speaking of the opposing party candidate, his writers are probably using behaviorist principles to taint public opinion through the process of association.

Behaviorists believe that man's capacities permit new or different behavior, but these capacities are limited by his environment. Habits in man's behavior can be changed, but the environment limits, controls, and determines his everyday living habits.

Man can and should be aware (consciously) of his anxieties and problems. But there are times he is unaware of the reasons behind his behavior. His problems are due to his inability to respond properly to the right stimuli or to his inability to discriminate stimuli correctly. At such times a behaviorist psychologist or counselor can use one of the therapies mentioned earlier to correct and change any faulty behavior in the troubled person.

The Future of Behaviorism

If the past is prologue to the future, there is no doubt that the influence of behavioristic psychology is here to stay for many years. Psychologists with behavioristic leanings certainly dominate many various sub-fields of psychology such as experimental, educational, industrial, school, etc. Moreoever, most college and university psychology department faculties are strongly behavioristic in orientation, and they continue to perpetuate their professional bias in their students. A recent survey of department chairmen in this country overwhelmingly chose Professor Skinner as the most influential figure in modern psychology. Journals of psychology carry behavioristic articles more than any other type. Major psychological societies and associations in the United States are predominantly behavioristic in membership.

It therefore appears safe to presume that the immediate future of psychology in this country is certain to feel the continuing influence of behaviorism. By the same token, hopefully as many advances and accomplishments can be expected of future behaviorists as have been provided by the efforts and skills of behaviorists in the past and present.

BIBLIOGRAPHY

Hill, W. F. Learning: A survey of psychological inter-
    pretations. San Francisco: Chandler, 1963.

London, P. Behavior control. New York: Harper and Row,
    1969.

Skinner, B. F. Waldon two. New York: Macmillan, 1960.

Thorndike, E. L. Animal intelligence. New York:
    Macmillan, 1911.

Watson, J. B. Psychology as the behaviorist views it.
    Psychological Review. 1913, 20, 176-177.

Wolpe, P. Psychotherapy by reciprocal inhibition.
    Stanford, California: Stanford University Press, 1958.

CHAPTER II

PSYCHOANALYTIC PSYCHOLOGY

While behaviorism is the largest and most influential school of psychology in this country, it is not the oldest, nor perhaps is it the most dramatic or colorful. These distinctions fall to the psychoanalytic (Freudian) approach for studying the mind and behavior of man. Behaviorism dominates the academic and purely scientific psychologists, but classical psychoanalytic influences are mostly felt in clinical work involving psychotherapy. In fact psychoanalysis is both theory and therapy.

Chapter One concluded with a viewpoint of man from the behavioristic school. Now this chapter begins with the way man is viewed by the psychoanalytic school. Once the classical psychoanalytic viewpoint of man is understood, its total approach is more easily studied.

The Psychoanalytic Viewpoint of Man

Man is not so much a <u>machine</u> as he is a conscious <u>animal</u>. However, this conscious animal is largely determined by the hidden unconscious processes.

<u>Consciousness</u> is awareness. For example, you are now aware of the printed words on this page and also of their meaning -- or at least the meaning of most of them. <u>Unconscious</u> processes are man's thoughts, fears, motives, and wishes of which he is unaware -- but which still influence his behavior. For example, while reading this you may have forgotten some unpleasant appointment or some past memory. If such a "forgotten" thought comes back into your awareness (through the sub-conscious state), you are now conscious of it.

A further distinction is made for the "<u>nonconscious</u>" state -- a condition where there is no consciousness. Nonconsciousness usually refers to inanimate objects, but this example may help: as you are reading this page your blood is flowing and your hair is growing. You know these things are happening, but try as you may, you cannot consciously experience them.

<u>Determinism</u>. Determinism for the psychoanalytic school is based in part on man's unconscious processes: his innate drives and instincts. For example, a childhood wish or fear, long unconscious, is still deep within us to determine our behavior. Environment <u>influences</u> these processes, but it does not entirely <u>control</u> man as the behaviorists hold. Therefore man is determined largely by his inner drives, but also by the environment and

additionally by his capacity for some decision making.

Motivation. What motivates (moves) man? Our
inner struggles or tensions. Sigmund Freud placed
emphasis on man's tensions which strive to seek pleasure
and also satisfy aggressive tendencies. Man's motivation
is generally an effort to reduce such tensions. Gum
chewing or smoking a cigarette without full awareness are
pleasure seeking acts. Pounding one's fist on the table
or pouting are considered ways to alleviate aggressive
feelings.

Man is also motivated to reduce threats to his
person. He frequently accomplishes this threat reduction
subconsciously, thereby accounting for man's
"irrationality" (a non-thinking "animal" way of acting).
Repressing painful thoughts or fears points out one way
man reduces threat to his person. (Repression: ejecting
from the conscious state painful or shameful impulses,
memories, or experiences.) Therefore man often acts like
the "irrational" lower animal, even though our conscious
state, which is learned, can raise us far above mere
animal behavior.

Nature of man. Chapter One stated that the
behaviorists' view of man is basically neutral, following
Locke's notion of the tabula rasa. The psychoanalytic

school's concept of man's nature flows more from Darwin's thinking, wherein man is viewed in his animal nature which is still evolving from past forms of lower ancestors. The human animal is the product of his past. He has weaknesses and flaws and is subject to doing wrong. Like the traditional Judeo-Christian concept, the classical psychoanalytic school seems to view man as imperfect or even inclined toward evil. Man is thus regarded as the product of forces beyond his complete control -- a similar conclusion to that held by behaviorists, although arrived at from a different frame of reference.

Although man is much more than mere animal, he is still seen in biological terms by the psychoanalytic school. Psychologists of this school conveniently follow the biological and medical models of treating man's ills. In fact much of their terminology is borrowed from medicine: doctor, patient, illness (mental), therapy, cure, and so forth. By using the medical model, and regarding man from a biological position, the psychoanalytic school supports its claim of being scientific.

The men and women who are the practitioners of this school have different professional labels which sometimes confuse students. A psychiatrist is someone who is a medical doctor (M.D.) with further training and specialization in psychiatry. As a physician he can also

treat organic causes of mental illness by prescribing
medications, surgery, etc. A psychotherapist may be an
M.D. or may also be a psychologist with graduate studies
and internships preparing him to provide therapy for
disturbed patients. The psychotherapist who is not an
M.D. would treat mental illness more as a functional
(psychological) disorder than as having an organic or
physical (pathological) cause. A psychoanalyst is a
psychotherapist who has had further training in analysing
patients by use of dream analysis and other techniques,
especially free association. Free association is a
Freudian therapy which encourages the patient, who is
often relaxed on the traditional office couch, to freely
report one thought after another as they come to mind. A
psychoanalyst typically follows many theories, therapies,
and techniques which were first introduced by Freud.

Sigmund Freud: A Man of Ideas

Freud was not only the most influential thinker in
early psychology and also the father of psychoanalysis,
but his influence remains in modern life. The ideas which
Freud pioneered show up in terms like "repression" and
"Oedipus complex". His thoughts are captured in modern
drama, novels, movies, social relationships, criminal
studies, but mostly in helping the mentally ill.

The great doctor was born in 1856 and lived most of his life in Vienna. He died in London in 1939, one year after he left his Nazi-dominated homeland. His university training was in medicine, particularly neurology, thus explaining his medical model and biological assumptions for the psychoanalytic school of psychology which he established (Jones, 1953). His studies in Paris under Charcot interested Freud in hypnosis as a means to remove various nervous disorders. Later he abandoned hypnosis for the free association technique which is a basic procedure in psychoanalysis. He observed how patients would generally talk about their childhood conflicts and their sexual experiences. "Talking out" these repressed thoughts in psychoanalysis provided the patient a catharsis -- an opportunity to reveal hidden stresses. Freud was convinced that there was great therapeutic value in being able to relive true emotions and simultaneously purge away their stress.

After each long day of analysing patients, Freud would write well into the night about his thoughts and findings. Although his research was narrowly confined to his few patients, most of whom were suffering from neurosis, he concluded that neurosis originated in childhood and that the basis of most neuroses (plural) was sexual.

Obviously Freud placed much significance on neurosis, which he defined as a faulty way of resolving a conflict between a person's drives (urges and impulses) and the desire to keep these drives repressed and not reaching the conscious level. In other words, a neurosis is a slight mental or emotional disorder in a person who cannot consciously cope with an inner difficulty. For example, a person may harbor a deep hostility toward someone or toward some authority, but is not able to admit this fact consciously. As a result, these painful thoughts are repressed. Consequently the person may assume a very timid personality, or develop vague aches and pains, or tend to suffer from anxiety, or acquire one of any number of other possible neurotic symptoms which are due to this inner conflict. More will be said about neurosis later.

Besides neurosis, Freud also stressed the importance of sex. He lived during the Victorian era when sex was not freely discussed. People felt pressured by society to avoid the subject of sex and almost act as if it did not exist. Small wonder then that sexual drives were repressed into the unconscious of many neurotics who were psychoanalysed by Freud. He regarded such repression as unhealthy, and he then formulated a theory which said that man has two basic instinctual drives or wishes: the

life instinct, which he labeled after the Greek goddess of
love, _Eros_, and the death instinct, named after the Greek
concept _Thanatos_. The life instinct includes the drives
of hunger, thirst, and especially sex. The death instinct
includes hate, self-destruction, and aggression. Freud
spent much of his later years developing these theories,
but he seemed to concentrate mostly on the sexual drives
and did not fully complete his writings on the other
instincts. Therefore his critics have sharp accused
Freud of being preoccupied with man's sexual impulses.
(In Chapter IV you will read how Freud theorized that
sexual life begins, not at puberty, but at birth.) The
sexual instinct was at first called by Freud the _libido_,
and society (including parents) often dictates that a per-
son repress this force. Thus a change in personality can
occur, and in more extreme cases a neurosis may result
from denying this phase of the pleasure principle.

Sometimes a repressed memory or wish tries to come
up again out of the unconscious. Freud theorized that
this phenomenon is what causes dreams. In a relaxed state,
such as sleeping or undergoing analysis, something of the
past can more easily become conscious again. Another way
that repressed material comes to the surface is in a slip
of the tongue -- a Freudian slip. Sometimes these slips
can be embarrassing, as in the case of a girl dating a boy

and, in a relaxed moment, she accidently calls him by the
name of her former boyfriend. Or a well meaning male
college student approaches a lovely female classmate to
discuss the lecture they both just attended and he has
every intention of saying, "I'd like to speak with you."
but the word "sleep" slips out instead of "speak".

Freud's own life showed symptoms of neurotic
behavior. He had confused father relations, suffered from
feelings of anxiety and depression, was a compulsive cigar
smoker (twenty cigars a day), and complained about poor
digestion, constipation, and heart palpitations. He was
also nervous about travel. He came to the United States
only once, and he always traveled with some companion. In
later life his youngest daughter, Anna, (who is now a
famous psychoanalyist) went with her father. The great
reader of the mind never learned to read a train time-
table. But however many symptoms of neurosis he actually
had, he was nevertheless a physician who indeed healed
himself. Perhaps it was due to his own confused childhood
and his other weaknesses that he was better able to under-
stand the neuroses evidenced by his patients. All in all,
Freud lived a long and productive professional, family,
and social life.

<u>Freud's Theory of Personality</u>

Many famous psychologists have developed their own theories of personality. Freud's elaborate theory is perhaps the best known, at least certain aspects of it. His total theory was constantly changing in his own writings and the result today is complicated and somewhat ambiguous.

Basis to his theory (and remember, a theory is not a proven fact) is that the psyche is divided into the conscious and the unconscious. (Psyche: the mind or principle of life) Within this total framework is man's personality. Personality is made up of three fictitious "parts" which Freud termed "id", "ego", and "superego".

The id part of one's personality is entirely unconscious and contains the libido. Therefore the id is irrational and is the source of our unconscious, animalistic, and primitive instincts and urges which demand gratification.

The ego is our contact with reality and our rational check on the id. It is the "executive" which mediates between the id and the real world. While the pleasure principle operates in the id, the reality principle is the task of the ego. The ego is nearly all conscious and develops as we mature in experience and reason.

The superego, partly unconscious, is the

"conscience" of our personality according to Freud. It is shaped by social values and moral codes we have absorbed from childhood. The superego also exerts influence on the ego by making judgments between good and evil. If the superego is obeyed, self-esteem is felt; if it is disobeyed, feeling of guilt occurs.

It may now be easier to understand that a neurosis builds up when harmony is lacking among the id, ego, and superego. For example, a neurosis may develop if the id is constantly restrained, or if someone has a weak ego structure (poor contact with reality), or if the superego is too severe because of overly strenuous childhood socialization (Bruce, 1966).

Freud's Major Contributions

Before examining other psychologists of the psychoanalytic school, a brief summary can be made of some important insights Freud gave to psychology.

His major contribution can be summed up as "ideas". Freud left behind probably more revolutionary ideas about the nature of human psychology than anyone else for centuries (McClelland, 1957). He can be criticised for not being more scientific and also for not being more precise in his theories, but any criticism pales in the light of the total impact of thought he did contribute.

Freud made mankind sit up and take notice of the unconscious aspect of our human make-up. He pointed out that mental illness was not a point on a measuring line, below which a person slipped, but that there are degrees of mental illness occuring all along a continuum from very severe to normal. (In Chapter III it will be seen that some recent psychologists extend that continuum beyond "normal" toward extremely healthy personalities.) Freud found ways to extract data from dreams. In contrast to behaviorists, he was more interested in theories of dreaming than in theories of learning. Freud shocked the world and angered many by his emphasis on sex and other unconscious drives, but he never relented, even if it meant losing some of his promising disciples.

Alfred Adler

One follower Freud did lose because of differing opinions was Alfred Adler (1870-1937). Adler's theory of personality is not based so much on life and death instincts or other Freudian starting points as it is on our feelings of inferiority and inadequacy. Adler went beyond Freud by stating that our most important aspects of personality are a striving for superiority and for self-realization. He believed that the longing for sexual gratification was less intense than the longing for self-realization.

The famous concept of "inferiority complex' is a result of Adler's teaching that some childhood feelings of weakness and of helplessness lead to a sense of inferiority. If this inferiority becomes severe, it is called a complex. Inferior feelings are apt to occur quite naturally in any children who compare themselves to adults or even to their peers. But Adler singled out as more probable candidates for inferior feelings those children who have real or even imagined organic problems, or who are females, or members of some minority group.

To overcome feelings of inferiority some people may use _compensation_ to develop a strong personal quality. Some typical examples of compensation are: the frail boy who cannot become an athlete so he compensates by con- centrating on being a scholar; or the unattractive girl who develops a very attractive friendliness. Compensation does not always develop admirable qualities in persons. A classic example of poor compensation is Napoleon. Speculation has it that Napoleon compensated for his small physical stature by becoming powerful in the control of people. He tried to prove his superiority by dominating persons and even nations. Sometimes people, like Napoleon, try to _overcompensate_ for their inferior qualities and the results are unfortunate. With regard to the unattractive girl mentioned above, she might try to

improve her poor looks by applying several layers of heavy
make-up. But the effect would be overdone and her
appearance would be even less attractive. Sometimes,
however, overcompensating our weakness does work. Teddy
Roosevelt was a weakling as a boy, but by disciplined
exercise and training he built himself up physically to be
the vigorous leader of the famous Rough Riders.

Designers of clothing are well aware of selling
garments which can compensate for the customers' physical
shortcomings. Vertical stripes compensate for plumpness,
padding compensates for thinness, elevator shoes compensate
for shortness, and so forth. This is one of many examples
how principles of psychology are applied to our everyday
living. Colors, shapes, and various materials each have
varying environmental effects on us, often in subcon-
scious ways.

Adler's influence is still felt today in our
society. He founded many child-guidance clinics, some of
which are still active. He talked and wrote about a
person's individual style of life, and today people who
may not be aware of Adler, are nonetheless aware of the
term "life style". His theoretical system, called
Individual Psychology (Adler, 1927) is concerned with
understanding, preventing, and treating mental disorders,
and is recently enjoying a rebirth in some psychological
circles.

Carl Jung

The other great man who split from Freud and then made his own unique contributions to the psychoanalytic school was Carl Jung (1875-1962). He said the libido was more than a sex drive. The libido is an all-encompassing life force. Jung also taught that each of us has a collective unconscious which contains memory-traces of all mankind's past. For example, he believed that each person possesses some kind of primitive memory image of "father", "mother", "God", "king", etc. This theory and several other concepts which Jung presented to the world of psychology are complicated and not easy to understand. His interests led him to write about human involvement in such matters as religion, metaphysics, and symbols.

To comprehend Jung's works requires much patient and penetrating study. However, his most "popular" teaching, the notion of extroversion and introversion, is easier to grasp and has entered into our everyday conversation. Jung in his earlier writing posed the supposition that some people tend outwardly toward others and are more socially oriented (extroverts): while others appear more withdrawn into themselves, especially in times of stress (introverts) (Jung, 1933). Naturally, most people are neither extreme extroverts nor extreme introverts, but fall somewhere in the middle area between the two and can be called ambiverts.

Both Adler and Jung present important theories of the psychoanalytic school which modify the teachings of Freud. They also paved the way for others who maintain some basic Freudian concepts but lay stress on our social environment and our interpersonal relations. These newer "rebels" of the Freudian school are called neo-Freudians.

Neo-Freudians

Three famous names are usually singled out to represent the neo-Freudians: Erich Fromm, Karen Horney, and Harry Stack Sullivan.

Erich Fromm is well know among college students who have read his **Art of Loving** (Fromm, 1956). Fromm further states in other writings that man's problem is not sex, but isolation. We have become isolated from one another and from nature, and therefore we feel lonely. This loneliness is not found in other species of animals -- only in man. How is our dilemma solved? Man can either unite himself in love with others, or he can find security by submitting to authority or conforming to society (Hall and Lindzey, 1957).

Karen Horney, like Fromm, came to the United States from her native Germany. She disagreed with Freud's teaching in many areas. For example, Horney denied that aggression is inborn. Rather aggression is simply a means which we use to protect our security. Another disagreement

is in the field of feminine psychology which should make her a sort of "patron saint" for today's women liberationists. Horney stated that women are not innately jealous of the male anatomy, nor do they feel a genital inferiority to males. In also rejecting Freud's theories of the id, ego, and superego, Horney developed her primary concept -- basic anxiety. She claimed that human personality arises from social, not merely biological, influences. In growing up, a child tries to avoid the anxiety which can come from his social contacts, especially from parents, so that he will not feel isolated or helpless in a "hostile" world. The various methods a child uses to avoid his anxieties will determine, to a large degree, the kind of personality character he develops.

Harry Stack Sullivan was the real champion for a marriage between psychiatry and social psychology. He claimed that man's personality is developed largely by interpersonal relations with people in his life. Our learning, our physiological functioning, and much else in our behavior results from our experiences with others as a member of a certain social setting (Sullivan, 1947).

The wide range of interests which concerned neo-Freudians moved their attention into subjects such as sociology, philosophy, religion, and man's unique place in the complex modern world. They form a bridge from Freud's

revolutionary theories across to the humanistic and
existential thoughts of the "third force" psychologists to
be seen in the next chapter. But before crossing that
bridge, it is logical that a brief presentation be made
here of the psychoanalytic view of mental illness which is
a chief concern of the psychiatrists and psychologists of
this second force.

Mental Illness

In past centuries mentally disturbed people were
considered outcasts, or at best misfits. They were un-
fortunately referred to as idiots, lunatics, and as being
possessed by the devil. The inhumanity shown to them by
their fellow man was shocking and often cruel, especially
during the 15th and 16th Centuries. Fortunately in this
century the mental health movement has made huge progress
in professional care and humane kindness for the mentally
disturbed. (The term "insane" is properly a legal de-
signation, and not a psychological or psychiatric
catagory.) Medication, individual and group therapy,
behavioral techniques (see Chapter One), counseling (see
Chapter Three), and many other techniques have
rehabilitated thousands of suffering person each year. Per
capita in-patient treatment in hospitals is decreasing
regularly due to better professional care and a more

enlightened general public. But more research, education, and public acceptance is needed in the fight against all forms of mental illness.

Today in our country about one out of ten persons have a serious emotional or mental problem sometime during their lifetime which requires professional help. One out of twenty have at least a mild form of neurosis. How do these problems occur, and what are their symptoms? Answers to these questions are as lengthy as they are varied, but one way to approach these questions can be found in the psychoanalytic school of thought.

There is no clearly defined point which distinguishes normal from abnormal behavior. Generally speaking, abnormal behavior prevents a person from functioning adequately in his day to day living. Mental illness which causes abnormal behavior can be caused organically and/or psychologically. Organic or physical causes can range from genetic flaws to brain deterioration caused by injury, disease (e.g. syphilis), toxic poisoning, old age, etc. The psychological causes and symptoms of mental or emotional disturbances are also varied, and although not wholly understood, can be commented on briefly. Three general catagories of psychological abnormality can be distinguished: neurosis, character disorders, and psychosis. (Classification of the

following abnormalities from Coleman, 1964).

Preludes to a Neurosis

As mentioned earlier, a neurosis can be described as a mild mental or emotional disorder preventing a person from adequately coping with some difficulty. This difficulty usually stems from some frustration, resulting in stress. Freud said the stress was caused by an inner conflict between the ego and the id. Adler said the difficulty came from the person's goal of superiority being in conflict with his painful experience of inferiority. Other psychologist offer other explanations to describe the difficulties which bring on a neurosis. Nevertheless, it is generally agreed that whatever the situation, a frustration and its resulting stress is the cause of the problem.

Frustrations. A frustration is any obstacle to some goal a person has. Three possible kinds of frustrations are: (1) **personal:** for example, a person having some physical handicap, being shy, or lacking skills for good performance; (2) **environmental frustrations:** for example, poor living conditions, wars, floods, having to work alongside peculiar people; (3) **conflict frustrations:** which force us to make one choice between two or more alternatives: for example, (a) deciding between two things

you would like to do but being limited to only one choice, such as finishing college or getting married (approach-approach conflict): or (b) making a choice which has two consequences, like wanting to eat and not wanting to gain weight, or wanting to see a doctor for medical care, but not wanting to see the doctor because of fearing his advice (approach-avoidance conflict): or (c) choosing between two undesirable alternatives, like not wanting to study but also not wanting to fail (avoidance-avoidance conflict).

Defense mechanisms. Whatever the frustration, if it continues persistently, a certain amount of stress builds up. Some degree of stress can be good to properly motivate a person. But excessive stress can be harmful if a person cannot normally cope with it. When stress builds up, a person may unconsciously call on some mechanism to defend against the discomfort. These defense mechanisms protect our self-esteem and defend us against excessive anxiety. (anxiety: an apprehension or uneasiness connected with some vague fear.) Some classic defense mechanisms are:

1. Fantasy or daydreams which can gratify our frustrated desires to achieve something. They also remove us mentally from some unpleasant situation like a boring classroom, a routine job, or an unhappy home.

2. <u>Regression</u> is an uncontrolled longing for the safe past due to a conflict in the present. Regression may take the form of acting out some former behavior such as crying like a child, baby talk, prolonged thumb-sucking, or having a fist fight. Mild forms of regression are homesickness or, in the aged, taking comfort in memories of the past.

3. <u>Repression</u>, mentioned earlier, is perhaps the most common mechanism and is contained within most other defense mechanisms. It is sort of allowing unpleasant things (like going to the dentist) to slip out of our consciousness so that we are relieved of fears and anxieties. Repression is different from mere forgetting, and usually occurs when the person is faced with some conflict he would like to escape. Repression, like other defenses, does not resolve the conflict even though it may partially relieve the anxiety of the present moment.

4. <u>Projection</u> is not only repressing our own uncomfortable thoughts or actions, but putting them (projecting them) on others. The student who cheats not only denies the deed, but says that someone else has been cheating. The unfaithful husband proclaims his innocence, and then accuses his wife of infidelity. Remember how you used projection when you were a child and got caught in a

fight? More than likely you projected by saying, "It's not my fault. He started it!"

5. __Rationalization__ is a favorite defense mechanism of college students because it requires a certain amount of intelligence. Rationalization is defined as devising seemingly logical explanations to justify one's thoughts or actions. It is usually based on a false premise, but is not quite lying. For example, a student who feels frustration about attending an early morning class may logically (?) conclude that he should really stay in bed to avoid getting a headache which he feels might occur. Besides he was up late last night and deserves a good rest to protect his health. If one deals too much in rationalization, he could be leading an unrealistic life with serious consequences.

6. __Displacement__ is another form of defense mechanism. If an employee has aggressive feelings toward his boss, he may displace or scapegoat his anger onto his wife by becoming angry, hitting her, sulking, or in any number of other aggressive actions. She in turn doesn't want to retaliate against her stronger husband so she yells at the children, who in turn kick the dog, who chases the cat, etc.

There are several other defense mechanisms used to

reduce stress due to frustrations. A limited use of them may be harmless, but if they are used in excess, they fail to solve the basic conflicts we experience. They usually are directed only at a symptom (e.g. the present anxiety) and not at the real problem and so the main conflict continues.

Kinds of Neuroses

Very often a person's defense mechanisms are ineffective or they break down under continued stress. When a mechanism fails to defend against the tide of anxiety caused by some prolonged frustration, the person is flooded with anxiety. The emotional tension of this anxiety is basic to every kind of neurosis. In fact, some psychologists regard a neurosis as a backup defense mechanism, giving the anxiety-filled person another avenue of escape from his emotional and mental distress.

When the person is still unable to halt the onrush of anxiety, he may suffer from one kind of neurosis called anxiety reaction. This most common neurosis accounts for thirty to forty percent of all psychoneurotic disorders. Sometimes the episodes of anxiety are so acute and persistent that the person has an anxiety attack and needs to get away from his environment perhaps even to a hospital.

Generally neurotics do not need hospitalization. Modern chemical medication (e.g. tranquilizers or anti-

depressants) often provide sufficient relief so a person can continue everyday activities. The reader should be cautioned against identifying with anxiety reaction or any of the following neuroses because the real, fullblown neurotic also experiences some of the following symptoms: restlessness, mild nausea, insomnia, constant tension, inability to concentrate, feelings of impending doom or catastrophe, or a tendency to become introverted, sensitive, suspicious, or even guilty.

Some relief for the neurotic may come from adapting certain physical symptoms like a paralysis, blindness, or other excessive bodily reactions. This type of neurosis is called <u>conversion reaction</u> (formerly labeled hysteria).

Other neurotics find relief from their anxieties by developing <u>obsessions</u> and/or <u>compulsions</u>. An obsession is a persistent <u>thought</u> which the person does not want, such as the continuous thought of stabbing your roommate during the night. A compulsion is an <u>action</u> like washing one's hands fifty times a day. Lesser obsessions such as the song of some radio commercial running persistently through your mind is not necessarily neurotic. Nor are mild compulsions a sign of neurosis, like dressing in a specified order every day, or not walking on the cracks of sidewalks. Such rituals or stereotypes are not

necessarily neurotic -- just kind of funny and senseless.

<u>Phobias</u> can also be neurotic if they are excessive. Most of us have some average phobias (fears) which are normal, such as a fear of snakes, of falling, of disease, etc. But the person with a neurotic phobia fears such things even when the object or event is not present. Moreover, they may experience other symptoms including headaches, back pains, inferiority, and a general worry about "cracking up". More women and young people acquire phobic neurosis than men. This may be due to past social-ization and conditioning which says that males should be brave and not show fear.

<u>Asthenic reactions</u> or neurasthenia is yet another neurosis. It is characterized by chronic mental and phy-sical fatigue and an assortment of vague aches and pains. People who have neurasthenia seem to appreciate others showing concern for them, especially doctors. Concern at least satisfies some of their need for attention.

<u>Depression</u> in extreme forms become neurotic. Al-though most of us are somewhat depressed from time to time, the neurotic reaction of sadness and dejection is more severe and longer lasting -- sometimes for weeks or even months. People who are neurotically depressed can accomplish everyday tasks, but with difficulty.

Treatment for these people ranges from anti-depressant drugs and short-term psychotherapy to electroconvulsive shock for severe cases. Thanks to improved medical drugs, shock treatment is used less today than a few years ago. Usually a depressed person will recover spontaneously.

Dissociative reactions are the most dramatic and bizarre of the various neuroses. They make good television and movie material, but actually they occur quite rarely, accounting for less than five percent of all neuroses. In extreme forms, repression causes a person to block off his or her contact with unpleasant surroundings and thus create a state of amnesia, or even multiple personality. The latter has been dramatized in the story of Dr. Jekyll and Mr. Hyde and in the true life account of "The Three Faces of Eve". In multiple personality cases the person develops an additional personality system and he or she alternates between the two (or more) life styles. Multiple personality is not to be confused with "split personality", as some people call schizophrenia, which is really a split from reality and is a psychosis -- not a neurosis.

It is obvious that a neurosis can assume many different forms and symptoms. Seven reactions have been listed here, but a combination of two or more reactions is not uncommon. Whatever reaction(s) a neurotic assumes,

the person can usually avoid hospitalization and can continue daily living, though with distress. It is not easy for someone else to live with a neurotic, but both the friend and the neurotic can profit from further study of the subject and also consulting a psychologist or psychiatrist.

Character Disorders

Neither a neurosis nor a psychosis, a character disorder is a personality maladjustment. Usually no organic pathology is present nor does the person show much distress.

If just one symptom of a personality disorder is present, the person passes through daily life as virtually "normal". Such special symptoms include: nail biting, stuttering, tics (a tic is a persistent intermittent muscle twitch or spasm, e.g. blinking eyes, clearing throat, etc.) and enuresis (bed wetting). The behaviorist school would recommend removing special symptoms by some form of behavior modification (see Chapter One). The psychoanalytic school would say that behavior modification eliminates only the external symptom and does not solve the deeper problem which may be a need to release anxiety, a disturbed family background, emotional immaturity, repressed tensions, or any number of other causes. Therefore the psychoanalytic school would include psychotherapy

with any treatment in an effort to detect the underlying dynamic of the disorder.

A more dangerous character disorder is the result of environmental living where accepted social values are disregarded. Gangsters, racketeers, and other criminal types make up the disorder known as dyssocial reaction. Many psychologists and psychiatrists work with criminologists and penologists to study the causes and cures of serious juvenile and adult delinquency.

The psychopath is a rare person who can slickly con others out of some possession or into some deal with ease. The psychopath lacks proper ethical and moral development. His antisocial ways are characterized by the unprincipled businessman or lawyer, quack doctor, high-pressure evangelist, crooked politician, or imposter. They are clever, quite charming, intelligent, have no real loyalties (except to their own interest), egocentric, and expert at manipulating the truth. Psychopathic people lack guilt, profit little from past mistakes, and falsely impress or exploit others. Success in changing their ways is small. Even a well meaning therapist can be sometimes outwitted by a very shrewd psychopath.

The final group of character disorders is deviant sexual behavior. Some people have inadequate sexual development and therefore resort to deviant methods of

obtaining sexual gratification. Such people usually are undersexed -- not oversexed and are often underdeveloped socially.

Some deviant sexual practices are: rape (the most dangerous sexual offence), incest, pedophilia (a young person is the sex object for an older person -- usually a man), beastiality (an animal is the sex object), exhibitionism, voyeurism ("peeping Tom"), fetishism (deriving sexual gratification from some object, e.g. an article of clothing, or part of the body), sadism, and masochism.

Some lists of sexual deviations include prostitution and homosexuality. However, one could argue that prostitution is also a business venture, and that homosexuality is recently being viewed in more enlightened ways, and thus not considered with the repugnant connotation of "deviant".

Psychosis

On the extreme end of the abnormal continuum are the psychoses. A psychotic person is characterized as having one or more of the following symptoms:

1. Hallucinations: hearing, seeing, or smelling things that are not present.

2. Delusions: a strong belief contrary to reality. For example, the stereotyped mental patient who has

delusions of grandeur that he is Napoleon, or the de-

lusion of being persecuted, poisoned, followed, etc.

3. Emotional distortions: blunted or flat

emotional responses or exagerated emotions (e.g. gloom,

fear, elation).

A psychotic is not a neurotic who got worse, even

though some psychotic and neurotic symptoms have similar

appearances (e.g. depression, anxiety, fear). A psychosis

often comes on quickly and usually requires hospitalization

A psychotic patient has extended severe episodes of ab-

normality, sometimes lasting for years or for life. A

psychotic is generally out of touch with reality and

thereby may actually be relieved of suffering, whereas a

neurotic suffers within his real-life situation.

Psychotic reactions which are not simply organic

are generally classified in four catagories.

1. Schizophrenic reactions: This is the largest

catagory of psychotic patients and includes several sub-

types. Schizophrenia is characterized by inability to

concentrate on a single idea or thought, by confusion in

speech and behavior, and a tendency to retreat from

reality.

2. Paranoid reaction: the paranoid has delusions

which are usually of persecution and grandeur, but other-

wise his personality structure seems to function quite

well. In other words, if you accept the patients premise
of his being the President of the United States, all else
he does seems rather logical.

3. **Affective reactions:** sometimes these reactions
are called manic-depression. The patient may behave in
high excitement (manic state) or in low gloom (depressive
state). The patient may swing between a short high and a
longer low, but he may also remain in a depressed state
rather continually, or even have periods of normalcy.

4. **Involutional psychotic reactions:** these re-
actions are sometimes similar to the manic-depressive re-
actions, but they appear later in life with less occurance
of spontaneous recovery. First admissions of these
patients to mental hospitals finds the average age for
women at fifty-three, and for men at fifty-seven. Symptoms
include restlessness, spells of weeping, worry over the
past, and having no hope for the future.

The preceding pages of abnormal psychology contain
only a few descriptive highlights of various abnormal per-
sonalities. In actual practice many of the labels used in
this chapter are discarded by the professionals because a
label tends to stereotype a person. But some nomenclature
must naturally be used in textbooks for descriptive
purposes.

Abnormal psychology is by no means the sole domain

of just the psychoanalytic school. Psychologists of all
schools concern themselves with abnormal behavior, but
many of the above terms and classifications are broadly
associated with Freudian concepts. Psychoanalysts of
today are not only treating thousands of mentally ill
patients, but they are also involved in sophisticated
clinical research of neuroses, character disorders, and
psychoses.

Therapy Techniques

Having already discussed the technique of psycho-
analysis introduced by Freud, it is only necessary here to
recapitulate two underlying assumptions of psychoanalytic
therapy. First, the psychoanalyst focuses on the uncon-
scious process of the patient. The surface symptoms serve
only to disclose some of the inner conflicts. Secondly,
psychoanalysts see therapy as reconstructing or rebuilding
the patient's personality, not merely removing a symptom
or changing an attitude (Millon, 1969). Reconstruction of
personality is more thorough than patch-work or the "band-
aide" approach to therapy.

Some psychoanalysts, especially those who favor
free association, will stress the importance of exploring
infant and childhood experiences with the patient. The
analyst's role in therapy is quite passive, permitting the
patient a more active part in talking out conflicts.

Other therapists, particularly those who emphasize the present reality rather than past memories, will take a more active role by helping the patient to face current reality in a rational way.

In addition to the deep therapy described above (either using a couch, or face to face dialog), other types of helping patients are used by the psychoanalytic school.

Hypnotherapy is a procedure using hypnosis by words or induced by drugs (narcotherapy). Although it is not widely used, therapists who do employ hypnosis believe that the patient in a relaxed state can readily uncover repressed memories and emotions which may be blocking the patient's functioning. Posthypnotic suggestions may also provide the patient with the needed impetus to carry out more adequate behaviors.

Play therapy is used with young children. Many toys (like dolls of family members) are placed in a room with the child who is free to use them. The therapist observes the child at a distance or through a special one-way glass. Play therapy can be diagnostic in that the child's behavior may disclose certain feelings the child does not verbalize. Play therapy may also give the child a chance to express pent-up emotions (e.g. hitting the

daddy doll). Other therapists may stay in the room with
the child, and thereby allow the child to develop a
healthy relationship with some adult. Psychodrama or
acting out situations and feelings with other participants
has similar results for older children and adults.

Art therapy has corresponding goals to play
therapy, and it can also be used with adult patients.
Making drawings and other artistic expressions may reveal
hidden insights to the patient himself as well as to the
therapist. Art therapy can also release tensions and pro-
vide a non-verbal way of expression.

In psychoanalytic practice the therapist will
generally observe the situation and "play it by ear" with-
out too many preconceived plots or decisions. In this way
he is continuously diagnosing, allowing catharsis, and
helping to reconstruct the root personality problems of
the patient.

Education and the Psycho-
analytic School

Treating and researching patients is of more con-
cern to the psychoanalyst than are educational practices.
The behaviorists and third force psychologists, though in
differing ways, have more interest and direct involvement
in current education than does the psychoanalytic force.
Few psychoanalytic learning theories have been developed

since the time of Freud, and few psychoanalysts today are involved in general education. Their teaching in colleges and universities is concentrated in the psychology and psychiatry classrooms.

However, there still is some spill-over of psycho-analytic theories and attitudes into other phases of education. John Dewey is often wrongly blamed for the practice of permissiveness and the emphasis of life adjustment in our schools. But these trends were actually offshoots of Freudian influence. Teachers and parents were advised to allow the child full expression of his instinctual drives. They were warned not to curtail or deny a child's expression, for fear his psyche would become frustrated and a neurosis might develop in later life.

Freud's notion of man's basic animalistic and aggressive nature may have led many a teacher and administrator to be more concerned with discipline practices than with academic instruction. If a school child is seen as having a primitive nature or even as basically evil, the teacher's attitude and approach will certainly be different than if the child is seen as a machine-like learner or as an actualizing person.

Finally, if a student is determined by instincts and his thinking is influenced by inner unconscious drives, then an educator will take these possibilities into

consideration when preparing classes, presenting instructional material, and in overall student evaluation.

Criticisms of Psychoanalytic Therapy

Few, if any professionals, would question the goals which are sought in psychoanalytic therapy. So it is not the goals which are subject to criticism, but rather the theories, techniques, and feasibility of the therapy.

1. From Freud onward, psychoanalytic psychologists and psychiatrists have been criticized for failure to produce ample scientific evidence for their theories which can be objectively researched. For example, how does one prove (or disprove) the stated theories of the id, ego, and superego?

2. Claims of their "cures" for mentally ill patients are challenged on the fact that many non-treated patients seem to recover spontaneously in the same amount of time as their treated patients.

3. The length of time for psychoanalysis and other therapies of this school are very long. Often sessions for treatment are scheduled three or four times a week over a period of several years, and thus become very costly.

4. Psychoanalytic treatment is objectionable to some because of its involved pursuits. Prolonged probings

of the unconscious, dredging up past memories, mechanisms, and motivations appear wasteful and are not attacking the problem directly.

5. As in other areas of psychology, there is the danger of the "amateur psychologist" -- the college student, or adult who has read a few books on Freud and then feels able to "psyche out" others. Freud's writings on fascinating subjects such as sex, dream interpretation, and the unconscious provide for the non-professional just that little bit of knowledge which can be a very dangerous thing (as well as annoying and unnerving for family and friends who are "analyzed").

The Future of the Psycho- analytic School

Predictions are never easy and at best should be made on the basis of present evidence. Over the past decade or so there has been a marked decrease in professional journal articles dealing with the psychoanalytic way. The current emphasis in psychology on laboratory research and observable scientific data has made this second force of psychology pale by comparison to behaviorism. Moreover, some psychologists of this second force seem to be drifting into the sphere of the third force. Because the therapy of the psychoanalyst is lengthy, costly, and not too impressive in statistical results,

there may be a waning of demand for their services. To borrow a business phrase, they could be pricing themselves right out of the market.

There will always be an interest in the contributions of this school from the standpoints of its historical greatness, its sheer fascination, and its contributions to literature and the arts, as well as its value in helping many people. But as a force in the future years of psychology, this writer would have to predict that it will give up even more ground to behaviorism and to third force psychologies.

BIBLIOGRAPHY

Adler, A. The practice and theory of individual psychology
New York: Harcourt, 1927.

Bruce, P. Three forces in psychology and their ethical
and educational implications. The Educational Forum.
1966, 30, 257-285.

Coleman, J.C. Abnormal psychology and modern life (3rd ed)
Chicago: Scott, Foresman, 1964.

Fromm, E. The art of living. New York: Bantam Books, 1956

Hall, C.S. and Lindzey, G. Theories of personality.
New York: Wiley, 1957.

Jones, E. The life and work of Sigmund Freud, Vol. I.
New York: Basic Books, 1953.

Jung, C.G. Psychological types. New York: Harcourt, 1933.

McClelland, D.C. Freud and Hull: Pioneers in scientific
psychology. American Scientist. 1957, 45, 101-113.

Millon, T. Modern psychopathology. Philadelphia:
Saunders, 1969.

Sullivan, H.S. Conceptions of modern psychiatry.
Washington, D.C.: William Alanson White Psychiatric
Foundation, 1947.

CHAPTER III

THIRD FORCE PSYCHOLOGIES

During the decade of the 1960's some psychologists who were neither behavioristic (first force) nor psychoanalytic (second force) began to refer to their professional approach as the "third force". This newest force contains a variety of thinking and beliefs which go beyond the first two forces of psychology. Because there is such a variety of thinking in the third force, the title of this chapter includes the plural word, "Psychologies". One could say that the third force psychologies are different variations of a single theme -- and this main theme is the humanness of man. In fact, the expression "Humanistic Psychology" is often regarded as synonomous with the label of "Third Force".

For the sake of convenience, and because no more systematic definition of the third force can be found, this chapter will use the humanistic theories of psychology as a starting point. Once this approach is understood, the reader will easily see how other third force concepts of existential and perceptual (phenomenological) viewpoints are incorporated into the overall third way of

psychology.

Some psychologists would argue that if there is indeed a third force in psychology, it is something other than what is proposed here. Humanistic or existential or phenomenological approaches do not satisfy for them the rigid scientific criteria they demand for psychology. Some of these psychologists would support the cause for "cognitive psychology" or for "biophysical theories" or perhaps some other school to be considered as a third force. As this chapter continues, evidence will be given to affirm the decision for concentrating attention on this humanistically related school of thought. However, so that the student may also be exposed to cognitive as well as biophysical concepts, these approaches will also be briefly summerized separately even though they are clearly distinct from this chapter's main humanistic thrust.

Humanistic Viewpoint of Man

As its name implies, humanistic psychology places emphasis on man's distinctly human qualities. It is a new orientation to psychology rather than a new psychology (Severin, 1965). Humanistic psychology should not be confused with the "humanism" which usually appears in the arts -- nor should humanistic psychology be divorced from the aims of humanism. Man's behavior cannot be completely

studied if he is seen only in terms of physics or chemistry, or in terms of his animal instincts. Man must be seen as being capable of loving as well as thinking; as having freedom of choice and not merely being determined; as being mentally healthy and not just avoiding neurosis; as active and not only reactive; as being creative as well as conditioned; as growth oriented and not merely tied to the past; as a total human being more than a sum of his several parts.

Humanistic psychologists therefore oppose the behavioristic tendency to see man as a mechanistic object to be scientifically manipulated. They also reject many Freudian presuppositions about man, especially that man's animal nature and biological functions determine him and incline man more toward evil than good.

Man's nature is basically good, and he can become even better if he is free to develop his higher human qualities and needs like love, creativity, and personal growth. These and other human capacities are not easily defined on the cognitive (thinking) level, nor are they readily subjected to laboratory and clinical research. Therefore third force psychologists believe it is now time to also explore man's nature on the affective (feeling) level and to do whatever scientific investigation in this domain is possible with available research methods. For

example, everyone admits that the quality of human love exists. But few would agree on some universal definition of love, and be far less able to objectively observe it or scientifically measure and control it. Perhaps love defies definition, observation, measurement, and control. But love does challenge us daily to better understand and practice it. Consequently there seems to be little doubt that psychologists can long refrain from exploring love and many other human qualities which are vital, fascinating, and provocative to all thinking and feeling humans. Such is the task which has been undertaken by humanistic psychologists.

Definition of Humanistic Psychology

The American Association for Humanistic Psychology in 1963 defined its role in the following article of association (Severin, 1965, p.xv):

> Humanistic psychology is primarily an orientation toward the whole of psychology rather than a distinct area or school. It stands for respect for the worth of persons, respect for differences of approach, open-mindedness as to acceptable methods, and interest in exploration of new aspects of human behavior. As a "third force" in contemporary psychology it is concerned with topics having little place in existing theories and systems: e.g., love, creativity, self, growth, organism, basic need-gratification, self-actualization, higher values, being, becoming, spontaneity, play, humor, affection, naturalness, warmth, ego-trancendence, objectivity, autonomy, responsibility, meaning, fair-play, transcendental experience, peak experience, courage, and related concepts.

As was mentioned in the previous chapter, some
neo-Freudians, especially Fromm and Horney, were bridge
builders between the psychoanalytic second force and the
new third force. They viewed man's nature as being
basically social and cultural instead of just biological
and instinctual. Even some writings of Adler and Jung
have prepared the way to a more humanistic study of man.
Recent and current third force leaders like Maslow, Rogers,
and May will be discussed shortly.

Determinism. Humanistic psychologists of the third
force agree that man is determined by his freely made
choices. Man can choose only when he is aware of his per-
sonal self. Therefore much emphasis is placed on self-
awareness. Inner evaluation of his unique personness or
selfness results from: remembering past experiences, the
ability to organize thinking and concepts, decision making,
purposive behavior, having wishes and goals, the cultural
progress of mankind, and many other signs of man's self-
determinism. Being aware of one's individual self permits
a person the freedom to choose. The theologian Paul
Tillich has said that we are never more human than at the
moment of decision. When a person makes a choice, he is
then responsible for the decision he has made. Man there-
fore feels accountable (responsible) for his choices,
rather than always feeling enslaved (determined) by forces

beyond his control. There is no doubt that such outside forces do control a great deal of our actions: for example, the environmental forces of parents on children, government on citizens, culture on progress, etc. But despite outside forces, we possess an inner self which can freely make choices. This democratic outlook for healthy persons is not true for the severe neurotic or for the psychotic personality whose selfness is controlled or distorted by extreme anxiety. Such people have a compulsion to behave in some particular way, have little or no feelings of responsibility, and are not really free.

Humanistic psychologists therefore place importance on our free will and our potential for decision making. Man can choose to marry or remain single, to study or not study, to work for peace or to encourage hostility. There is no question that our environment does influence our free choices, but it does not entirely determine our decision making. Even in Skinner's utopian Waldon II it seems reasonable to presume that some authority figure has to freely make some choices for the community.

Third force psychologists do not deny the fact of determinism in our world. They only object to a total commitment to deterministic thinking (Temerlin, 1963). Determinism is surely present in chemical, biological, and physical sciences, which explains why psychologists of

other schools who base their systems on a scientific or
biological model naturally adhere to determinism.
Psychology has become so much a <u>science</u> that it may have
restricted itself from taking the risks to explore man's
uniquely human qualities. Perhaps it is presumed safer to
remain within a deterministic scientific framework (a very
popular American framework) than to explore creatively
man's total potential for free will. The noted American
psychologist Gordon Allport (1955) stated that a student
may look through a hundred successive American psychology
books and find no mention of "will" or "freedom". No
doubt with the advent of the third force such a bleak
statement may soon become obsolete.

An involved argument in favor of man's free will
and purposive behavior cannot be fully presented here.
The reader, however, is encouraged to 'determine freely'
what personal beliefs are held. Some will conclude that
we indeed have free will, or at least the potential of
freely chosing. Others will conclude that man is deter-
mined, or at best that any semblance of freedom man might
have is illusory and this illusion of freedom is itself a
myth which is determined by environmental conditions.
This free will vs. determinism decision is just one of
many examples showing how one's personal values and beliefs
can influence the approaches and directions one follows in

the study of psychology. It again points up the need that everyone has to know just what he or she actually does believe and hold as values.

Motivation. A humanistic theory of motivation was probably best presented by Abraham Maslow (1954). He said that man has several psychological needs (motivations) which can be classified under five distinct headings. These needs are in a hierarchy or ladder beginning with the lowest or most basic needs which must first be satisfied before man can be fulfilled by his higher needs.

1. Physiological needs. These include the biological necessities of food, air, proper temperature, etc.

2. Safety needs. Our physical organism must be protected against the dangers of the environment. Furthermore we must feel secure in our surroundings.

3. Love and Attention. This is the need to share some close relationship with another person. During early years of life there is more emphasis on receiving than on giving love and attention.

4. Esteem needs. These involve the need for self-respect, the esteem of others, and the need to feel useful and worthwhile.

5. Needs for Self-actualization. These include our desire for self-fulfillment, reaching our highest potential in life, achieving our goals, and being humanly

responsive to others. (More will be said about self-actualization later.)

An interesting speculation for the reader would be to consider where he or she is on this hierarchical ladder in terms of having certain needs met and satisfied. Some unfortunate human beings in the world must spend most of their time concentrating on the first and second needs simply in order to exist. Others, children and adults alike, are searching out ways to be loved and to receive attention on the third rung of Maslow's ladder. It should not be difficult to think of fellow students or members of your family who are very lonely and have a need for love -- maybe yours. Furthermore, in our country notice is taken of certain people who seem to have a high need for esteem -- perhaps even by acquiring a facade from the 'status' or 'prestige' connected with lots of money, a new car, the latest style, etc.

People are always motivated. According to the positive view of man which most humanistic psychologist hold, man is searching for what is good for him in order to become an even more fully functioning person. Why then do some people seem to turn out bad -- seeking out crime as a way of life, turning to hard drugs, or encouraging wars? Perhaps because some essential needs are denied them and they then seek inappropriate ways to achieve needs.

Another quick but not complete answer to this question might be in the way these people look at (perceive) their needs and goals. Their perceptions are unrealistic, tainted, or not in conformity with the general good of society. But they are nevertheless motivated toward what they perceive (maybe selfishly and mistakenly) is the best for them at this given moment. The way we look at things often influences our motivation. This is a key concept of the perceptual psychologists of the third force to be treated shortly.

Nature of Man

Third force psychologists have much to say about the nature of man because they view his inner nature (if it is free to develop in positive ways) as the impetus which can guide his life to be more healthy, productive, and happy. This inner nature of man is not always strong and headed in the direction we would like. Occasionally weak, man's nature can be overcome by habit or cultural pressure. Or, as just mentioned above, certain needs may be denied or may be misled by poor perceptions and attitudes.

But generally speaking, man's inner nature is constantly unfolding and hopefully growing in healthy directions toward self-actualization. With this belief, humanistic psychologists regard man's nature as basically

good and growth oriented. By growth oriented they mean that man ought to become what he is capable of being. Hopefully our life is a continuing process of becoming more who we are by allowing our potentials to develop. In other words, as Maslow (1957) puts it, each person's task is to become the best himself. Joe Doakes must not try to be like Abraham Lincoln, Martin Luther King, a movie star, or any other model or hero. He must just become the best Joe Doakes in the world. This is not idealistic. It is realistic -- he can do it. Here he has no competition.

Our growth process is possible because we are not helplessly determined by outside forces. We are not just passive reactors to various external stimuli. We have our own inner stimulus that makes us an active and autonomous mover, chooser, and center of our own life.

Maslow and other third force people have challenged the whole science of psychology to start including new areas of interest and research in order to better focus on man's inner nature and healthy growth potential. This kind of interest must be added to already existing studies of observable behavior and the unhealthy aspects of man's personality where the first and second forces respectively seem to concentrate. Human improvement requires a better understanding of human nature, and perhaps psychologists of the past simply have not come up with sufficient under-

standing about people. One suggestion made by Maslow is that psychology should more frequently turn its attention to the studies of philosophy, sciences, aesthetics, and particularly values and ethics. Psychologists should not be content to work with just a part of a person, but with the whole human being -- thus the urgent need to incorporate into psychology a philosophy of human nature.

A major shortcoming of other psychologies which is pointed out by the third force is the pessimistic, negative, and limited concept they have of man's growth potential -- the full height to which humans can attain. By concentrating on man's limitations and his ills, psychology has failed to explore many of his virtues, aspirations, and ultimate potential for peace and happiness.

Clearly the third force people desire to expand the horizons of psychology in order to come to a fuller understanding of man's nature and his growth potential. These horizons are already being expanded in various directions by different psychologists whose endeavors have been in more or less specialized areas of interest. By now looking at these areas, it may be possible to grasp several different facets of the sprawling third force. Each of these areas has been associated with certain psychologists and psychiatrists who are collectively con-

sidered humanistic, but individually represent a distinct theory or philosophy which has uniquely contributed to the total impact of the third force.

The Healthy Personality (Abraham Maslow)

While the psychoanalytic school concentrates on abnormal psychology and the mentally ill person, the third force, led by Abraham Maslow (1908-1970), has shifted attention to the healthy personality. Maslow's earlier professional work was in the field of abnormal psychology until he began studying healthy people. He decided that if psychologists continued studying only sick, crippled, neurotic people exclusively, they would produce a crippled psychology (Hall and Lindzey, 1957). Therefore he began a study of many people who had realized their potentials to the fullest. These he called self-actualizing persons. There are not many such people; less than one percent of the adult population by his criteria. Consequently Maslow delved into history to examine such personages as Lincoln, Jefferson, Thoreau, and Beethoven. He also studied others who were living at the time, like Eleanor Roosevelt and Albert Einstein. Other subjects were some of his personal friends and college students. As a result of his research he was able to arrive at a list of about fifteen characteristics which distinguished mentally healthy persons from the general population.

<u>Qualities of self-actualization</u>. Some of the characteristic features of the healthy, self-actualizing person are:

They perceive reality better than average people.

They can accept themselves, and even like themselves (positive self-concept). They also accept others, and the realities of human nature.

They have a great deal of spontaneity.

They are not problems to themselves and consequently can devote attention to a task, duty, or mission outside themselves.

They have a need of privacy and possess a high degree of autonomy and independence.

They appreciate people and things in a fresh, nonstatic way. They enjoy just being alive.

They experience profound and deeply emotional interpersonal relationships, but usually only to a very few people.

Their values and attitudes are democratic.

Most of them have had deep mystical or spiritual experiences, though not necessarily religious.

They have a sense of humor which is philosophical rather than hostile.

They resist conformity and express creativity.

A person does not become self-actualized all at

once. In fact, a healthy personality is continuously in the process of self-actualizing. It never really ends. This process begins when someone can experience fully (with total absorption and concentration) his work, or friend, or some important moment.

Peak experiences. Occasionally a rare and precious moment occurs when someone has what Maslow calls a peak experience -- a transient discovery that you are "one with" another or some object, like a mountain view or a flower. These are moments of ecstasy which cannot be bought, cannot be guaranteed, and cannot even be sought (Maslow, 1967). They just happen, and probably many people are unaware of peak experiences they may have had. But we can prepare for them by setting up conditions so a peak experience might occur. This is possible only when one knows his potentialities -- a result of discovering what one is.

It was Maslow who popularized the term "third force", and it was Maslow who pointed out the advantages of studying the healthy personality where the inner nature wills to be healthy, seeks identity, desires to grow, and experiences the pressure of self-actualization. But Maslow was not alone in developing the third force. Other psychologists have shared essentially the same goals. One of these is Carl Rogers whose writings and counseling have

helped many persons to the realization of actually be-coming healthy personalities.

Individual and Group Counseling (Carl Rogers)

Carl Rogers (1902-) along with Maslow have in-fluenced the third force movement in this country by their optimistic faith in man's ability to become a more fully functioning person. Their theories attempt to help people answer such vital questions as "Who am I?" "Where am I going?" "What is my purpose in life?" But Rogers offered the world more than theories and research on how persons grow. He actually has helped people become more healthy and capable by his contributions to the profession of counseling.

Becoming a person. First, a short look at his beliefs about man's potential (Rogers, 1961). A person who is not impeded by his defenses, fears, and rigidity can constantly be in the state of becoming more completely a happy and real person -- one who is independent, flexible, realistic, and thinking.

How does one live in order to become such a person? First of all, a person must maintain an increasing openness to experience. This is the opposite of being defensive, always on guard or closed, and being distrustful. The experiences to which we should be open and sensitive are

those stimuli which come from the environment (e.g. form, colors, sounds, etc.) or from within ourselves (e.g. past memories, sensations of fear or pleasure, etc.). The person who really "lives" these experiences has a keen awareness of self and the real world. Such a person fully lives each moment of life, and enables the process of change -- not being static. Such a person who is flexible and changing in positive ways is in the process of "becoming".

Furthermore, a person who is striving to be fully functioning will experience affectional relationships, will trust and like himself, and will have the feeling that man is basically good. What about the large number of people who cannot reach this kind of life style on their own? Many of them can be helped in a counseling relationship.

Counseling. Rogers (1951) pioneered and developed a counseling interaction called Client Centered Therapy to help others in a warm and accepting manner so that they may become truly their best possible selves. Over the past two decades, large segments of the counseling profession have been revolutionized by Roger's counseling theories and practices. "Client centered" implies that the client (counselee), if relaxed and free in a one-to-one personal interaction with the counselor, will become more himself and more aware of certain personal things. For

example, the client will freely and securely explore unknown and dangerous feelings within himself; he will become acquainted with past experiences which may have been denied awareness because they were too threatening (similar goals of Freud's psychotherapy), and he finds his behavior changing in constructive ways in accordance with his newly experienced self. During and after counseling, hopefully the client will approach the realization that he need no longer fear certain aspects of his life, but that he can accept them, live with them if necessary, and even profit from experiencing them. All this change comes in an atmosphere of basic trust, honesty, and acceptance between two people -- the client and the counselor.

Intensive group experience. Helping others is not confined to a counseling room for Rogers. He and many other counselors have expanded the process of helping people by becoming facilitators of groups. A facilitator is a kind of leader (without being too directive), trained in counseling and psychology, who functions within a group to help all members reach a greater potential. Intensive groups are called by various labels: sensitivity, encounter, self-awareness, and so forth. One kind of voluntary group is formed by people who do not require psychotherapy, but who simply desire to become more attuned, sensitive, and aware of their own inner selves

and the feelings and communication of others. Business
and professional groups often encourage their staffs to
engage in such groups. Another type of group is a therapy
group for people who require professional help such as
neurotics, or drug addicts (this group is called synanon),
or people suffering from any emotional disturbance.

The settings of groups has been in universities,
penitentiaries, churches, and resorts -- wherever persons
can gather for a few hours each week, or perhaps for a
marathon gathering which may last all through the night or
most of a weekend. Obviously much diversity can exist
within a group and also among different groups. But
Rogers (1967), who has facilitated groups for a quarter of
a century, concludes that some common elements can be
appraised in most every intensive basic encounter group.
These processes include:

Past feelings are described.

Negative feelings are able to be expressed.

Group members show a natural capacity to help each
other.

Varying degrees of self-acceptance occur.

A person's "real" self emerges as his facade is
removed.

A person learns how others honestly view him.

Closeness to each other within the group often

results in a helping relationship outside the group sessions.

Although a person may feel free to try out new and more honest behavior within a group, there is no guarantee that he will not fall back into his former ways after the group is terminated. Group encounters do not work magic. They involve hard work and often bring out intensive feelings. A skilled and professional facilitator is a prerequisite, and these men frown upon "fly by night" non-professional leadership. Not every person will profit from a group experience, just as not every person will grow in a counseling situation, but Carl Rogers and other third force psychologists have added a stimulating new dimension for helping many troubled people.

Gestalt therapy. Gestalt means configuration or the whole form of a thing. Gestalt psychology is on very good terms with the third force because it holds that the total experience is different from, and greater than, the sum of the parts in it. In learning, for example, a person learns some task as a meaningful whole rather than piece by piece.

The name "Gestalt" however, has lately been associated in this country more with therapy than with a learning theory. Mainly responsible for this shift in emphasis was Frederick "Fritz" Perls, a former Freudian

who developed the technique of Gestalt Therapy. He rejected both the Freudian and behavioristic methods of therapy as well as modern day "turner-onners" -- those technicians who turn on groups to some instant cure or joy or sensory-awareness, and who have nothing to do with humanism.

Gestalt Therapy is based on the concept that the world and every organism in it maintains itself. The only law which is constant is the forming of gestalts -- wholes, completeness (Perls, 1969). This self-maintenance is possible especially in our psychological life if we are wholly aware of ourselves. Therefore awareness on our part, by and of itself, can be curative.

As we grow older and mature, we transcend from environmental support to self-support. Perls suggests that there is little advantage to being adjusted to our society, because it is a sick, neurotic society. But if a person is adjusted and centered in one's self, he can let the neurotic world pass in a parade in front of him while he maintains his inner center and awareness. Achieving this center, being grounded in one's self, is just about the highest state a person can achieve. The Gestalt therapist is one who only serves as a sounding board for the client who is thus forced to find his own way, discover his own potential, and realize he can really help

himself. The therapist's main technique is to establish
a continuum of awareness in the patient, which allows him
to keep in contact with the present "now". Therefore the
aim of Gestalt Therapy is being in touch with the obvious.

The various methods of group Gestalt Therapy are
too involved to adequately present here, but the latest
book published by Perls (1969) a year prior to his death,
contained these introductory words: "I give you the
Gestalt prayer, maybe as a direction . . ."

I do my thing, and you do your thing.

I am not in this world to live up to your expectations

And you are not in this world to live up to mine.

You are you and I am I,

And if by chance we find each other, it's beautiful.

If not, it can't be helped.

(p. 4)

Phenomenological Psychology (Arthur Combs)

Both Rogers and Perls have made frequent refer-
ences to phenomenological or perceptual psychology. In
fact, the whole of the third force has been enriched by
phenomenological theories. These theories, if one would
study back far enough, are ultimately based upon the
philosophy of phenomenology which studies man's primary
experiences. In other words, a person's experience of
some event (some phenomenon) becomes reality for that

person, despite what the actual event itself might have been. For example, the phenomenon of an optical illusion of a water hole in the desert seems real to a thirsty person who is lost in the desert rather than the actual reality of mere sand and sun with no water at all. Because he perceives a water hole at a distance, his behavior will change and he will run to the mirage anticipating a drink and being cooled, only to be faced with the stark reality of just more sand.

Phenomenology is closely related to existential philosophy and they both have made inroads into third force psychology. Terms which indicate the direction in which their assumptions are leading psychology are: becoming, creativity, growth, and self-actualization (Van Kaam, 1958). These terms have just been seen in the preceding pages, the existential (and phenomenological) philosophical contributions to psychology will shortly be mentioned. But for now, it is well to look at the application of one such contribution which is called perceptual (or sometimes "personal") psychology.

Perhaps the best spokesman for perceptual psychology in our country is Arthur Combs, who along with his co-author, Donald Snygg, has awakened the world of psychology to a different frame of reference for understanding human behavior. Combs and Snygg (1959) have a

basic postulate which states that all human behavior,
without exception, is determined by the way a person
perceives his perceptual field. This perceptual field,
sometimes called phenomenal field, or the individual's
life space (Lewin, 1936), or private world, etc. is one's
reality. The water hole was reality, not a mirage, for
the thirsty person in the desert and therefore his be-
havior of running to it was determined by this "reality"
in his perceptual field. In short, we behave as we
perceive.

The careful reader has probably picked out the
word "determined" above, and is now thinking, "Aha, there
is determinism within third force thinking!" Combs truly
means what he says, but he also says that the "self"
(the phenomenal self) has primacy over the perceptual
field. The phenomenal self is how we perceive ourselves
in a given situation. It is the individual's organized
ways and pattern (Gestalt) of regarding "me". The per-
ceptual field includes all our perceptions of self in-
cluding, and in relation to, things quite outside us, e.g.
the desert. In this sense, the self is actually our
determiner because it is our basic frame of reference
(central core) around which the rest of things (percep-
tual field) are organized.

The way in which this inner phenomenal self per-

ceives things determines the way the person responds. For
example, two people taking off in a jet plane may have
completely different perceptions. One may perceive the
take-off as dangerous, and thus will respond with fear.
The other person perceives the take-off as safe and even
beautiful and will have the behavioral response of de-
light. Other examples of perceptions determining our
behavior happen all the time. One person may perceive
large sums of money as his life's goal; another perceives
it as a symbol of capitalistic greed. An older person
may perceive the young man as a potential comrade and
friend and thereby act in an accepting manner. One
student reading this chapter is turned on and keeps
reading; another is tuned out and struggles to stay awake.
And so we go through life, behaving in accordance with how
things are perceived.

The phenomenal self is the most vital thing to a
person because it is himself. Therefore a person not
only seeks to maintain self, but also to enhance self in
order to have the adequacy to cope with his ever changing
world. In fact, Combs and Snygg define man's basic need
as the need for adequacy so he can deal in capable ways
with life now and in the future. (Note the similarity to
Maslow's healthy self-actualizing person and to Rogers'
idea of becoming.)

This need for adequacy, which may be differently felt by different individuals, affects our perception even to the point that we see what we need to see. An example is a study done by Davis (1939) in which she permitted young children to select any foods they wanted from a large assortment. As time passed, the children actually were selecting the correct foods they needed to maintain an adequate diet. The need for adequacy affected their perception. Another study showed that children from wealthy homes perceive coins (like a half a dollar) as being smaller than they actually are, whereas poor children see them as larger because they perceive the coins as having great importance in maintaining adequacy in their lives. Perceptual psychologist conduct many kinds of laboratory experiments to demonstrate how our perceptions determine our behavior. For instance, specially designed earphones and goggles which distort hearing and vision are worn to show how we depend upon these senses and also show how our senses can adapt to new perceptions so that we can maintain our adequacy.

Because perceptual psychologists regard adequacy as man's most basic need, it is fitting here to list those elements which maintain and enhance an adequate personality. A person who has achieved a high degree of adequacy is one who:

Sees himself in essentially positive ways -- has a good self-concept.

Sees self as likeable, wanted, able, worthy.

Is capable of accepting self and others.

Can identify with others -- has feelings of one-ness with people.

Is open to experience and acceptance.

Has a rich and available perceptual field, e.g. is well informed, and involved in differing human relations such as business and recreation and other diverse interest.

These elements of an adequate personality are various ways of perceiving one's self (Combs, 1962). If not present, they can be taught. A good educator or a good counselor, who can detect another's perceptions, may be able to help that person change his perceptions so that his behavior might likewise change to thus become a more adequate person.

Existential Psychology (Rollo May)

Most of what has been said so far in this chapter finds a philosophical basis in European existentialists like Kierkegard, Jaspers, Marcel, Heiddegger, Sartre, and Frankl. These philosophers have provided a view of man which coincides with the psychology of the third force and has thus been adopted by several of these psychologists. In fact, some third force psychologists refer to them-

selves as existential psychologists. One such man in this country is Rollo May, who has the unique background of being a clinical psychologist, a student of psychoanalysis under Adler, and a student at Union Theological Seminary where he went to ask the "ultimate questions" about human persons.

A few thoughts on existentialism (also mostly true of phenomenology) are appropriate at this point. Existentialism for May (1961a) means centering upon the existing person; it sees the importance of the human being as he is emerging and becoming. Existential concepts are anti-deterministic. Sartre (1957) claims that man is nothing else but what he makes of himself; man is free, man is freedom.

Existentialists view man as restless, desiring both security and freedom. To counter his feelings of alienation, man seeks a meaning for existence. Existence (fully being alive) can be worthwhile by making commitments and by enhancing our life wherever possible along the way. Certain primary values become a part of one's life -- some worth dying for. The person who is really aware of his existence is one who grows, assumes responsibilities (has accountability) and tries to search for meaning, he encounters the tragic trio of suffering, guilt, and death (Allport, 1961). Man also encounters the trio of freedom,

will, and love. Love in our times has often become con-
fused with sex which as become a poor substitute for per-
sons who are searching for authentic love (May, 1969).

The history of psychology is filled with instances
of its having grown out of philosophies. Every scientific
method, says May (1961b), rests upon philosophical pre-
suppositions. The above existential concepts are readily
seen to be incorporated into third force theories already
mentioned in this chapter -- Maslow's self-actualizing
person, Rogers' fully functioning person, and Comb's
adequate personality. Existential philosophy has also
found its way into various third force endeavors, but
perhaps most notably is evidenced in counseling practices.
It is difficult to distinguish by label the various
counseling techniques used by different third force
counselors. For example, the client-centered counselor
who follows the theories of Rogers, and the existential
therapists who follows the theories of May, are talking
much the same language when they discuss man, the coun-
seling relationship, and the process of becoming. The
language is generally existential, but not a pessimistic
variety (Arbuckle, 1965). A brief overview of third force
counseling or therapy will be seen after the following
section.

Two Other Schools: Cognitive
and Biophysical

As mentioned in the beginning of this chapter, there are two non-humanistic psychologies which are not really a part of the first or second force either. Cognitive psychology and the biophysical theories are each considered by some psychologists to deserve the status of a distinct "third approach". To insure their inclusion at least somewhere in these first three chapters, a digression shall now be made to point out their respective principles. The brief space alloted to them in no way reflects an effort to play them down. On the contrary, the very fact of including them points up their importance as significant contributors to an overall understanding of psychology today.

Cognitive psychology. Centuries ago many people believed that images or faint copies of external objects (e.g. of trees, stars, and paintings) entered the mind directly. Learning and memory therefore used to be explained in a way similar to 'instant photos' we get today from some cameras. Naturally this theory of direct images printed in our mind misses a vital mediating process. (In fact, even a photo needs the mediating process of being developed.)

Whatever we have learned about reality has been

mediated by our sense organs (eyes, ears, skin, etc.) and also by complex systems which interpret and reinterpret the information received by our senses (Neisser, 1966). These systems are called cognitive systems and they interrelate with the behavior of our muscles and glands. An example of a cognitive system is visual cognition, which involves bringing the outside world inside us, not like an "instant snapshot", but through patterns of the retina of our eyes which are mediated in the brain, then interpreted, remembered, and thought about.

Cognitive psychology (the psychology of knowing) is therefore concerned about all the processes by which sensory information is received, transformed, elaborated, reduced, retained, recalled, and thought about. Even perceptions which do not come immediately from the senses, like hallucinations and images, are subject matter for the cognitive psychologist, is concerned with the broad overview of human activity. But the starting point for the cognitive school is sensory input rather than the motives, needs, and instincts of the psychoanalytic school, or the observable variables (without any inner images, ideas, or other cognitive transformations) of the radical behaviorists. Moreover, the cognitive psychologist believes that learning is more than the S-R formula. Learning involves a complicated mediating process.

The reader may now have the feeling that the cognitive psychologist's concern about humans parallels the way technicians are merely preoccupied with the process of a computer. Such a viewpoint certainly sells short the valuable contributions of these psychologists. But to stay for a moment with the analogy of the computer, a better understanding is had if cognitive psychologists are viewed as having an intense interest not just in the mechanics of the "hardware", but especially in the programming and analysis of the information within the "human computor". Another analogy may further clarify the deeper concerns of the cognitive psychologist. He is not interested merely in the telephone line, but more so in the various inputs at one end, the actual messages transmitted, and the reception of the information along with its retention, interpretations, and possible alternative uses of the information.

All analogies limp, and are therefore never adequate explanations. To use analogies of computers and telephone lines to explain the interests of cognitive psychologists may lead one to forget that these men and women are professionally (and genuinely) interest in the cognitive behavior of the human person -- not just the human machine. Throughout the years, these psychologists have researched such vital human behavior as memory span,

reaction time, recognition, focal attention, visual memory, dreaming, description of speech, linguistics, grammar, and several other cognitive and higher mental processes of great value to man.

Biophysical Theories. Another distinct approach to dealing with man's behavior is biophysical or, bio-behavioral science as it is sometimes called. These include heredity theories, constitutional (body shape) theories, biochemical theories, and neurophysiological (neural and physical dysfuntions) theories. There is no question that overt behavior is controled by the central nervous system, including the brain. Following the physiology model, psychological events are studied by bio-physical psychologists generally from the standpoint of man's neural events. In simplest terms, these theories pretty well limit psychology to studying the action of the brain.

These various approaches are quite new in the overall science of human behavior. Their theories are nonetheless impressive because of the scientific models used, but much of the theory remains unsupported by thorough experimental evidence. For example, a neuro-physiological theory suggests that various forms of psychopathology (mental illness) are located in the limbic system and in reticular formation. These two regions

(neural) seems to activiate motivational and emotional responses (Millon, 1969). Very little is yet known about the exact functions of these systems, but substantial evidence is being gathered by Olds (1969), Delgado (1969), and others supporting the theory that the hypothalamus, amygdala, and septal regions of the limbic system exert some control over emotions. An electrical stimulation in a certain region of a monkey's brain will cause his actions to slow down or speed up. Human schizophrenic patients have also (but rarely) been stimulated to determine more evidence about these psychotics and their possible rehabilitation.

Psychologists of all persuasions are eagerly awaiting firm results from some promising research of the biophysiologists. In the meantime, psychologists in the various other schools keep up their own work and research, unwilling to just sit back and wait for the biochemist to come.

Humanistic Education

Following the brief interlude above, a return is now made to the third force. Chapters One and Two contained behavioristic and psychoanalytic influences on the education scene, and now attention is turned to the humanistic-perceptual-existential viewpoints of education.

The starting point here is not so much a learning theory, as it is a belief in man. Before the learning process begins, both the student and the teacher have beliefs about themselves and about each other. If the student sees himself as growing, able, open to experiences, and many other third force concepts stressed in this chapter, then he will become a _learner_ rather than merely someone who is taught. If the teacher perceives the student and also himself in similar ways, he too is then part of the learning experience and not an authority figure standing apart (or above) from his students. He enters into the learning situation of the student; he enters into the student.

The humanistic teacher will believe his students _can_ learn, grow, and become more adequate. His faith in his students and his creative freedom to break away from restrictive teaching models of the past will permit him to become a facilitator of human change and growth more than just an imparter of knowledge.

These are days when students are crying out for meaningfulness in education, and when they are seeking answers to life's deepest questions. Their formal education should answer these needs. Learning must be more than accumulating facts (and good grades). It must deal with the discovery process of the total person; his

choices, creativity, goals, values, feelings, and spirit -
- not just his intellectual processes. Thus humanistic
learning is not preoccupied with the statistical norms for
the average student. Rather it looks toward the fullest
potential that man can become, and the individual dif-
ferences which can enrich the whole learning atmosphere.

The ideal atmosphere for learning will provide:
freedom from threat, mutual acceptance between student and
teacher, and an understanding of limits (Combs and Snygg,
1959). This latter point of limits means that neither the
student nor the teacher will exploit or manipulate the
other. Limits make a definition of relationship possible,
and also provide stable frames of reference. Limits
should be clear, reasonable, and not so restrictive that
growth is inhibited in any way. Thus both permissiveness
and coercion in the classroom are replaced with respect
for the rights and "selfness" of the other.

Counseling Assumptions and Practices

Throughout this chapter assumptions of the third
force regard for man have been presented. The foundation
for counseling, like teaching, is the positive regard for
man. The counselor is not an advice-giver. He does not
do something to a client, and is therefore usually not
called a therapist, as in the medical model, although
therapeutic results do occur. The distinction between

counseling and therapy is often made, but some counseling psychologists maintain there is no essential differences between them (Paterson, 1966).

The humanistic counselor is a person who enters into a helping relationship with another human being to facilitate his client's discovery of his own problems and his own solutions toward becoming more adequate and fully functioning. The counselor therefore is one who is skilled at freeing another to become his best self. This is accomplished after rapport (A feeling of comfort and trust) has been established, and while the client's thoughts and feelings are being explored.

Third force concepts have been succintly drawn together by Dr. Ernest Duley in his six attitudes or conditions for counseling. Dr. Richard Bear, an existential psychologist at the University of Northern Colorado, interprets Duley's concept as follows:

1. **Unrestricted communication.** Communication between client and counselor is unrestricted when the counselor does not reinforce what he wants to hear, and when he himself remains free to say what he feels.

2. **Acceptance.** The counselor accepts the client without condemning or condoning what he says. The counselor neither loses his own values nor does he impose them on his client. Acceptance is rarely easy to develop

whether in counseling or in everyday life situations.

3. **Warmth.** Everyone knows what a warm person is, but few adequate definitions can be found. Rogers calls this an unconditional self-regard. Warmth is the opposite of being mechanical. A person allows it to happen with others when he enjoys his own humanness.

4. **Sensitivity.** This is the willingness to respond (not just reflect or react) to people. A good counselor will rely on his feelings despite a certain risk of becoming overly involved. The frequent cries for help from a client are heard best by the sensitive counselor.

5. **Understanding.** This is not only an intellectual understanding of the client, nor is it "playing God". A counselor who has experienced very human feelings himself (e.g. fear, guilt, joy, etc.) can then better understand the feelings of the client. Rogers' term of "empathy" is perhaps a combination of sensitivity and understanding.

6. **Spontaneity.** The counselor gives of **himself** -- not a technique nor a facade. This involves honesty and trusting one's own feelings within the counseling relationship. Too many budding young counselors mistakenly believe they should just be a passive mirror for the client. No truly human relationship is possible for any length of time without spontaneous interaction.

The above six human qualities of a counseling situation need not exlude friends or other "helpers" from contributing toward the rehabilitation of some client. The age of the paraprofessional is arriving quickly. The paraprofessional (as in medicine or social work) is one who is trained to aid the professional. He does not have an advanced university degree, but he has been thoroughly taught basic fundamentals and specialized skills for the profession in which he serves. In counseling, the "para-counselor" could be a teacher, doctor, clergyman, parent, or some other layman. Such a trained person could assist the professional counselor in therapeutic ways by supplying support, acceptance, reassurance, love, and respect for the client. In this way therapy need not be confined to the counselors office, but could be spread to many other areas in the client's life (Maslow, 1957).

Criticisms of Third Force Psychologies

This new approach to psychology which is making its presence felt alongside the "big two" schools is bound to receive critical reactions.

1. The terminology (e.g. "becoming", "growth", etc.) and the goals of the third force are too vague or perhaps too "sweet". Because much of their teaching is based on philosophy, its humanistic concerns are not proper to psychology.

2. Related to the above is the criticism of being non-scientific. Third force results are hard to research because they are hard to objectively observe. The emphasis on human feelings seems to detract from a scientific, intellectual position.

3. The counseling methods cannot easily be taught, seem to move too slowly, and do not rely greatly on objective data from the past or from psychological testing.

4. The results of counseling are not spectacular or dramatic. Extremely disturbed people (e.g. full-blown neurotics and especially psychotics) profit little from humanistic-existential techniques.

5. A final "criticism" is often proposed by third force psychologists themselves: the ultimate goals are never reached -- one never really arrives at ultimate self-actualization, full functioning, adequacy, or becoming a perfect healthy personality.

The Future -- A Fourth Force?

The cycles of man's history seem to call forth an occasional burst of concern for the deeper qualities of the human person. Historically mankind has profited from the Golden Age of the Greeks, the dawning of Christianity, and the Renaissance. Lesser waves (or ripples) of humanistic concern can be found at times in governments, labor, law, the hard sciences, and in other public arenas

where men move. Perhaps now the times and conditions of the still young science of psychology are ripe for a wave of humanistic concern to add a new fresh dimension to this enterprise which is already committed to the study of man. The decades of the 1950's and 1960's called out for something different in many public areas. Perhaps the advent of the third force was a timely answer to such a call in the science of psychology.

During the ten or twenty years the third force has been budding and growing into an identifiable school of psychology, it has grown in stature and influence. Prospects for its continued growth seem favorable. Three of the four men singled out in this chapter for special consideration, Rogers, Combs, and May, are currently still active in research, teaching and writing. Many younger men and women are not only humanistic practitioners but are assuming leadership roles in clinics, colleges, and counseling centers where their productivity can be expanded.

The fifth criticism mentioned above has prompted several third force thinkers to consider new and psychologically unexplored areas to be part of their work. Is it too soon to call this new interest a fourth force? Led again by Abraham Maslow, before his recent death, third force psychologists (including Sidney Jourard, Anthony

Sutich, and Victor Frankl) felt a need to explore those intrinsic and ultimate human values which transcend current humanistic concerns. Thus the name Transpersonal Psychology was adopted by them in 1968. A definition of transpersonal (fourth force) psychology rendered by Sutich (1969) explains that it is interested in those ultimate human capacities and potentialities which have no systematic place in the first three forces of psychology. Transpersonal psychology is concerned with scientific study and implementation of such matters as: ultimate values, becoming, unitive consciousness, ecstacy, mystical experience, awe, being, essence, bliss, wonder, ultimate meaning, transcendence of self, cosmic awareness, spirit, oneness, maximal interpersonal encounter, sacralization of everyday life, transcendental phenomena, cosmic self-humor and playfullness, maximal sensory awareness, and related activities, experiences, and concepts.

These studies can be in individual or group interpretations and accepted as naturalistic, theistic, supernaturalistic, or any other designated classification. Therefore their concerns seem to be "transhuman" activities from drives to religious experience. To say their goals are ambitious is perhaps an understatement, but this seems to be an age where the ambitious is accomplished.

BIBLIOGRAPHY

Allport, G.W. Becoming: Basic considerations for a philosophy of personality. New Haven, Conn.: Yale, 1955.

Allport, G.W. Pattern and growth in personality. New York: Holt, Rinehart & Winston, 1961.

Arbuckle, D.S. Counseling: Philosophy, theory, and practice. Boston: Allyn & Bacon, 1965.

Combs, A.W. and Snygg, D. Individual behavior. New York: Harper & Row, 1959.

Combs, A.W. A perceptual view of the adequate personality. In Perceiving Behaving Becoming: a new focus for education. Yearbook 1962. Association for Supervision and Curriculum Development, a department of the National Education Association: Washington, D.C.

Davis, C.M. Results of the self-selection of diets by young children. Canadian Medical Association Journal, 1939, 41, 257-261.

Delgado, J.M.R. Physical control of the mind. New York: Harper & Row, 1969.

Hall, C.S. and Lindzey, G. Theories of personality. New York: Wiley, 1957.

Lewin, K. Principles of topological psychology. New York: McGraw, 1936.

Maslow, A.H. Motivation and personality. New York: Harper, 1954.

Maslow, A.H. A philosophy of psychology: The need for a mature science of human nature. Main Currents in Modern Thought. 1957, 13, 27-32.

Maslow, A.H. Self Actualization and beyond. In J.F.T. Bugental (Ed.) Challenges of humanistic psychology. New York: 1967.

May, R. Existential psychology. New York: Random House, 1961a.

May, R. Existence. New York: Basic Books, 1961b.

May R. Love and will. New York: W.W. Norton, 1969.

Millon, T. Modern psychopathology. Philadelphia: Saunders, 1969.

Neisser, V. Cognitive psychology. New York: Appleton-Century-Crofts, 1967.

Olds, J. The central nervous system and the reinforcement of behavior. American Psychologist, 1969, 24, 114-132

Patterson, C.H. Theories of counseling and psychotherapy. New York: Harper & Row, 1966.

Perls, F.S. Gestalt therapy verbatim. Lafayette, California: Real People Press, 1969.

Rogers, C.R. Client-centered therapy: its current practice, implications, and theory. Boston: Houghton Mifflin, 1961.

Rogers, C.R. On becoming a person. Boston: Houghton Mifflin, 1961.

Rogers, C.R. The process of the basic encounter group. In J.F.T. Bugental (Ed.), Challenges of humanistic psychology. New York: McGraw-Hill, 1967.

Severin, F.T. Humanistic viewpoints in psychology. New York: McGraw-Hill, 1965.

Sutich, A.J. Some considerations regarding transpersonal psychology. The Journal of Transpersonal Psychology, 1968, 1, 1-9.

Temerline, M.K. On choice and responsibility in a humanistic psychotherapy. Journal of Humanistic Psychology, 1963, 3, 35-48.

Van Kaam, A.L. Assumptions in psychology. Journal of Individual Psychology, 1958, 14, 22-28.

CHAPTER IV

DEVELOPMENTAL PSYCHOLOGY

The branch of psychology which studies human growth and maturation is called developmental psychology. Physical growth as well as psychological changes are studied from the time of one's conception until death -- from the womb to the tomb. This chapter will cover the areas of physical development through childhood, the development of our personality, and the way each of the three major schools of psychology view human development. Adolescence and adulthood will be the subject of the following chapter.

Physical Development

Genetics

Before looking at the various age levels studied in developmental psychology, a brief review can be made of a few facts about genetics. (Genetics: the branch of biology concerned with the mechanics of heredity.)

A person's hereditary characteristics are determined by the 23 chromosomes received from his father and the 23 chromosomes from his mother. Each of these 46

chromosomes in the fertilized egg (zygote) contains thousands of tiny genes which are the carriers of human traits. Genes are either dominant or recessive. Since genes form into pairs, the trait produced in the offspring will result from either the dominant gene of the pair or from two recessive genes which have united. A recessive gene cannot produce its trait unless it is paired with another recessive gene just like it. Examples of such recessive traits are blue eyes, tight ear lobes, and a tongue which cannot curl up at the edges. If a dominant gene and a recessive gene unite, the dominant gene will determine the characteristic of the trait.

Genetic inheritance is caused by a chemical substance called deoxyribonucleic acid (DNA), strands of molecules forming the chromosomes. Genetic scientists are currently involved in exciting work with DNA. They feel that if these strands of DNA are "unzipped", we will discover the secrets of the genetic code which determines our physical characteristics, such as hair texture, brain characteristics, and bone structure. Recent news and photo magazines, which are often more speculative than laboratory scientists, have even proposed a possible manipulation of the DNA code to produce "super babies" in the future. (The prospect of teaching students of overwhelming superior intelligence is a terrifying thought to

some educators who already feel sufficiently challenged today.)

Another chemical substance of life is ribonucleic acid (RNA) which assists DNA. A recent hypothesis states that one function of RNA molecules is to carry memory. Fascinating studies give evidence that RNA extracted from a smart laboratory rat (a rat that has learned to run a maze) can be injected into a normal rat who then runs the maze without having to tediously "learn" the complicated maze pathways. (The imaginative reader is now perhaps speculating between the choice of sitting through a boring lecture or being injected with some of the professor's RNA.)

Determination of Sex. Genes in one particular set of chromosomes determine whether the offspring will be male or female. Each member of the pair of the mother's chromosomes is called X. Ome member of the father's chromosomes is X and is paired with a smaller Y chromosome. When a sperm carrying a Y joins with an ovum, the result is XY, and a male zygote is formed. When a sperm carrying an X joins with an ovum, the result is XX and a daughter is conceived. Therefore it is the father's chromosomes which determines the sex of the child. In every 200 births about 106 are male babies. Why a majority of males births? More than one explanation could be proposed, but

the longer life expectancy of the female and the strain of work and war on males seem to make such an arrangement practical. (Young unmarried women often find the statistical preponderance of males difficult to believe.)

Many people still believe that a child inherits more physical characteristics from the parent of the same sex. This is a false notion because exactly one half of the chromosomes in a fertilized egg are from the mother and the other half are from the father. An exception to this statement, however, is used to explain mongolism (Down's Syndrome), a type of mental retardation in which about 95 percent of mongoloids have been found to have 47 chromosomes. (Millon, 1969) Research is also underway to support the "super male" theory which holds that some men seem to possess an extra Y chromosome. Certain criminologists are even tempted to trace excessive cruelty in some men to an XYY makeup such as the case of the Boston Strangler.

But generally one is safe in presuming that physical characteristics are supplied equally by both mother and father. However, some dominant physical characteristics are linked to sex like colorblindness which appears mostly in males. In females color-blindness is recessive, and daughters of a color blind father are usually only carriers of the X chromosomes containing

genes for color-blindness. Hemophilia (bleeder's disease) is another sex-linked disorder appearing mostly in males.

   Heredity and Environment. Having reviewed the way persons are programmed by heredity, our discussion of physical development must be balanced by also recalling the importance of environment. Environment includes all the influences on our maturation which are not genetic. Obviously a child cannot inherit characteristics which his parents have acquired like a mother's musical ability or a father's nasty disposition. But some family characteristic may "rub-off" a bit on the child and become an environmental factor in his development.

   Food and diet are the most obvious environmental factors in development, but other environmental conditions can play a big part in our development. Childhood environmental factors of home life, such as exercise, and nervous tensions can help or hinder a person's development. Later when the psychological development of a child is discussed we will see quite clearly the importance of other environmental factors such as playmates, discipline, and social influences.

   Years ago a favorite argument often raged over which factor was more important, heredity or environment -- the nature versus nurture argument. To ask which is

more important is to ask the wrong question. The sensible question to ask, especially in psychology, is how do heredity and environment interact with each other. The relationship between nature and nurture and their influences upon one another is our concern, not which one is more important. For example, if heredity provides a small body sixe for a man (as in the case of Napoleon), can he adjust adequately in his society, or will he feel a need to over-compensate for his size by inappropriate means. Throughout the rest of this chapter you may note ways of how heredity and environment can work together for a truly healthy personality.

Maturation

Heredity never ceases to be a factor in a person's growing up within his environment. Heredity provides us with the potential for our future behavior and learning. Heredity also sets fixed limits as we mature within our environment. Maturation is, therefore, the orderly growth process of an organism governed by both heredity and environment.

Prenatal Maturation. Maturation of the human being begins immediately after conception. The period between conception and birth is known as prenatal development and is the most rapid period of growth in a human's

lifespan. The prenatal period can be catagorized in three stages: germinal, embryonic, and fetal.

The germinal stage of development begins as a single cell (zygote) which was formed by the union of the paternal gamete (sperm) and the maternal gamete (ovum). During the two weeks comprising the germinal period, the zygote grows into a hollow sphere of cells measuring about one fifth of an inch in diameter.

The embryonic stage is the second prenatal period of development, and lasts through the eighth week of pregnancy. During these six weeks the embryo gives evidence of the baby's emerging inner organ system. The heart has begun to beat and the baby's head is clearly distinct from the body and is about as large as the body. By the eigth week the embryo is 1 1/4 to 2 inches long and is easily recognizable as human.

The fetal period of development lasts from the end of the embryonic period to birth. In this period the baby, properly called the fetus, develops to the point where it can easily survive outside the womb.

During the prenatal period the behavior of the unborn child displays remarkable similarities to the behavior of a newly born baby. For example, as early as the tenth week of pregnancy the fetus makes sucking movements with his lips. His feet, if stimulated, will show a

response known as the Babinski reflex -- the big toe extends upward and outward and the other toes spread out like a fan. About midway in pregnancy, usually a relatively comfortable period for the mother, the fetus begins to grow body hair and also makes noticeable movements. In the fifth month the mother can feel these quickening movements from the fetus which are at first quite soft but later in pregnancy become rather solid kicks. About the sixth month another person's hand placed against the mother can begin to feel the baby's little movements. During the final few weeks the arms, legs, and head of the fetus may become very active but the movements are comparatively slow and not at regular intervals.

Some unfavorable conditions can affect prenatal development. Besides the physical effects which could be caused by the mother's excess of drugs, poisons, and radiation or an abnormal diet and blood conditions, the fetus may also be affected adversely by chemical changes produced in the mother due to a dramatic emotional disturbance she might experience. Thankfully proper prenatal care and better informed expectant mothers are steadily increasing the chance for a healthy and pleasant birth process.

Birth

After approximately nine months within his (or her) mother's womb, the child is now ready to leave the soft, protective, warm environment he has known and enter an entirely different world. Otto Rank has called this disruptive change of environment the birth trauma. (Trauma: a German word used in psychiatry implying an emotional shock.) Not only will the baby's physical condition change, but he will begin to learn new behaviors. He will also enter into a society with people other than his mother. A humorist once mused about the convenience of prenatal living alone -- unless, of course, the baby had a wombmate.

Convenience does remain as part of the life style for the new-born (neonate). Nearly all infant needs are satisfied by nurse or mother. While much of the day is spent sleeping, the neonate does have various discomforts which must be cared for such as hunger, being wet or soiled, and feeling too warm or too cold. Since the infant cannot care for himself, the first months after birth are sometimes called the caretaker period.

While the infant's physical needs are being met by a caretaker, the neonate himself is adjusting to his new environment by learning to use his senses and his muscles. The outstanding Swiss psychologist in child development,

Jean Piaget, refers to the child's first two years of cognitive development as sensory-motor learning because the child's senses and motor movements are the predominant learning developments during these early months. (Piaget, 1954)

<u>Sensory functions of the Infant.</u> Although individual neonates have varying sensory capacities at birth, newborns respond to loud sound by the startle pattern known as the Moro response -- extending his arms and legs and then hugging himself, often accompanied by crying. Even before birth the fetus will sometimes respond to loud sounds. Some newborn babies will frequently turn their heads in the direction of certain sounds which indicates a fairly well developed sense of hearing at birth.

The sense of sight becomes apparent after a day or two when the newborn seems to be able to discriminate between lights of different brightness. There also seems to be evidence that the neonate will sometimes follow a moving object with his eyes, but his eye muscles need much strengthening. Although he cannot see objects clearly at a distance, some observers believe that within a few days of birth the baby can distinguish colored from black and white objects held close. He will also look longer at patterned figures than at undefined or unfigured sights.

Shortly after birth the neonate will be sensitive to taste and smell and also show a response to changes in temperature. Thus a baby may refuse milk of the wrong temperature. Pain is vaguely felt by the neonate right after birth but pain does not seem to become normally intense until several days later. Therefore a circumcision during the first week after birth does not require an anesthetic. A little sugar fed to the baby boy is enough to distract him during this minor operation.

Motor Functions of the Infant. Motor functions are the bodily movements and motions we make. A one day old baby can make general movements of his body and can manage some specific reflexive responses like a yawn, frown, hiccough, or sneeze. A baby cannot voluntarily use his hands for grasping objects until about five or six months, although parents are often amazed at the strength of an infant's reflexive grasp like hanging on to a blanket or even holding his whole body up with one hand grasping a bar above his head.

The most obvious motor development of the infant is his locomotion. It's a great day for both the baby and parents when the new baby can take his first steps alone. But many stages lead up to this moment. All babies do not reach each stage at the exact time, but there is an orderly

progression of development in all babies. Some babies can walk at nine months; others are not walking until twenty months or later. Motor development depends upon several variable factors like health, readiness, and motivation.

Locomotion and posture of infants generally proceeds in an orderly sequence from the general to specific movements. Fifty percent of infants by the age of:

3 months, can roll over;

6 months, can sit without support and stand holding onto furniture;

9 months, can walk holding onto furniture;

12 months, can stand alone. (Frankenburg and Dodds, 1967)

Since only fifty percent of American infants master the above tasks by stated month, it must be remembered that some babies may be months behind the average. A good example is walking. The average age for the baby's first steps alone is during the twelfth month, shortly after he has achieved standing alone. But some babies walk at seven or eight months, while others haven't mastered walking until twenty months of age. Parents of early maturing children should not believe their offspring are geniuses; nor should parents of late maturing children necessarily fear retardation.

Developing Communication Skills

During the first two years of life when the infant is learning sensory-motor skills, he is a busy little person. Probably he is so preoccupied learning about his environment and the tasks his body can perform that learning a verbal language just has to wait until he has mastered the more basic sensory and motor skills, especially locomotion. But certainly the infant has been communicating all these months. Each various style of crying means something unique to the perceptive parent. For example a cry can say, "I am hungry", or "I am tired", "I am not feeling well", "I want attention", and so on. (Incidentally, actual tears do not accompany crying until about the seventh month.) Even different smiles can be interpreted in the infant's process of communication. Not every smile is saying, "I am content." In the early months after birth the infant will often display a wry smile just before burping. From the second month to about the sixth month a social smile appears in response to nearly every human face.

Games also are a way of communicating. Beginning as early as the second month a baby enjoys an adult "talking to him". Some babies at this age even try to make vocal sound in return. As this kind of adult-baby "conversation" progresses throughout the months, a sense

of understanding and real communication builds. In the
third month a baby will play the game of reaching out for
an object and will also get pleasure from mild rough-
housing. (Stone and Church, 1968) The baby is becoming
more social. He will smile when a parent pretends to be
angry, but he will scream if he senses real anger. After
three months of age the baby looses its prenatal look and
takes on a more individualized body shape and unique per-
sonality. The baby's communication from this point on is
probably more voluntary than his previous impulsive quasi-
communicating. An example of voluntary communication is
found in the case of a three month old who is now starting
to sleep through the night without feedings. He now knows
that bedtime means the end of being active and having
companionship, and he will cry in short bursts of dismay
hoping for the return of the parent. Parents may have to
exercise real restraint for a few nights not to return to
a crying baby, or else they will reinforce his demanding
behavior.

Around four months of age many babies enjoy being
thrilled with the expression "Boo" accompanied by an
occasional tickle. Of course no game should ever really
scare an infant, but if he knows it is a fun game and if
it doesn't go on too long, the baby may give out with his
first real laugh which replaces his usual smile or gurgle.

By six months the baby's vocalizations are becoming more distinct. He not only coos and gurgles, but now starts babbling -- a fore-runner to real words. Also at six months the baby will begin imitating some of his parents gestures. He will also join in family laughter even though he understands nothing of the joke. It's his way of communicating his presence. Later on several other games are helpful to develop communication: dropping things from the high chair to be retrieved by the parent, handing toys back and forth, bathtub games, "this little Piggy", and other games which just "happen" between a child and loving parents.

Near the end of his first year the baby has graduated to more complex games like pat-a-cake. After a phase of imitating words spoken to him, the baby soon begins to understand the meaning of various words. Comprehension of words is the first phase of actually learning a language. One study indicated that an average baby can understand 3 words at one year of age, 22 words at eighteen months, 272 words at age two, and 2,000 words at age five.

The other phase of dealing with a language is of course to actually speak the words. Expressing one's self in words begins months later than comprehension. Between the age of one year and eighteen months the textbook baby

is actually speaking between two and six different words. After that he puts a couple words together like "Get ball", "Where milk?" By age two he is using phrases and very simple sentences. As the months pass, more sophisticated phrases and word groupings are used, so that by four years of age a child is speaking sentences which are grammatically acceptable.

Preschool Years

The preschool years between two and four find the child maturing physically, socially, and mentally. He is past the sensory-motor stage of development and now increasingly learns control and coordination of his body. Socially he meets friends from outside his family circle. He is also maturing mentally. However, he is still egocentric in his frame of reference for thinking and therefore somewhat unable to take another's viewpoint.

Social development is seen in the conversation of children which is often like their play. Until about age two or two-and-a-half their play has been alone or solitary and so has been much of their speech. Then as begin the preschool years, they enter a phase of parallel play -- side by side, enjoying the presence of another, but not really sharing. Their talking is also side by side, not real communication. After parallel play is a period of associative play where all the children are

engaged in the same type of play, but they are still doing their playing separate from others. For example, each child is separately playing with his own trucks or her own dolls but not really co-operating in each other's experience. Their conversation is likewise often associated with a similar subject but no real inter-communication is evident.

After age three children have cooperative play, e.g. playing house together, but even here the adult will notice childrens' conversation is what Piaget calls dual or collective monologue. They take turns talking, like taking turns playing, and they are often even talking about the same subject, but their conversation, like their play, does not flow in an orderly fashion. (Maybe this is not necessarily unique to young children.)

During the last part of preschool years and reaching to age seven, the child's cognitive development is noted regarding classes and number concepts. He can see some relationships between classes of objects and between numbers. According to Piaget (1954) the child of this age also develops the sense of conversation regarding mass, weight, and volume. For example, a five year old will know that a mass of something, like clay, is not changed when its shape is changed. Or a six year old knows that the total weight of several objects will be the

same (conserved) regardless of how they are packaged together. Finally a seven year old has learned conversation of volume; namely liquids do not change volume when they are poured into a container of a different size or shape. During these years he begins school and his whole world is expanding.

Later Childhood

The child is now beginning his later childhood or what is called the middle years (approximately age six to twelve). During these years between preschool and adolescence, the child continues his physical, social, and cognitive development.

Physical Development. The child is getting used to his body which has now slowed its growth. His head, which had been too large for his body, now seems to appear more proportionate. He has lost much of his baby fat, and his body is becoming more co-ordinated for tasks like riding a bicycle and learning more complicated games or sports.

Social Development. Socially children in their middle years are drawn in to clusters of their same sex. The middle years are sometimes called the "gang age" because of close peer associations formed in informal neighborhood and school clusters as well as in organized

groups like scouting and church clubs. Peer values often seem more important than parental values and often peer secrets are kept from parents.

Cognitive Development. The mental or cognitive traits of later childhood are described by Piaget as concrete operations and are distinguished from the preoperational thought period which lasted from age two to seven. The child is now able to use some logical (concrete) operations and to classify or organize objects into heirarchies. He can use some logic and reason about space, size, numbers, and time. He is becoming less egocentric in his thought patterns. Usually not until adolescence is a person capable of what Piaget terms the period of formal operations (age eleven to fifteen). During this final period the adolescent is doing more sophisticated abstract thinking, conceptualizing, and hypothesis testing.

Practical Applications for Parents

As the baby grows into childhood, parents and teachers can either help or hinder his physical maturation as well as his psychological development. The well informed modern parent will not be satisfied with merely the knowledge of childhood diseases and proper nutritional health care. Even good baby books such as Dr. Spock's

<u>Baby and Child Care</u> go beyond that level of raising a child. Parents will also want to be concerned with the child's mental health, his self-concept, and his being loved in new and more suitable ways.

Good <u>heredity</u> is not enough for good development. The <u>environment</u> in which a child grows must be a contributing factor to his physical and psychological maturing. For example, several studies have shown the importance of an enriched environment for a child: namely an environment that challenges his capacities and expands his life style. Enriching a child's environment begins when he is an infant in the crib. Such things as placing hanging mobiles over his crib will expose him to movement, design, and color, and will provide exercise for his eye muscles. Mobiles can be easily homemade and changed from time to time.

The sensory capacity of sound is developed by the child hearing a variety of sounds including music with good rhythm. The warm voices of parents are especially important for a child to hear. From parents' voices the child learns vocal sounds, but more important, he senses security and feels loved.

The infant's sense of touch can also be enriched. He should touch and be touched. Not only should he touch different material, but he should be touched with various

materials like soft towels and especially with loving hands and faces. When parents are cooing, talking, or singing to an infant, they can also stimulate the infant's sense of touch and motion by stroking, rubbing, and even gentle pinching as well as by moving his arms and legs.

Expensive toys are of little value to an infant who doesn't yet know what the toys symbolize or how they operate. Simple things like fabrics or a large wooden or plastic block do as well to enrich an infant's environment. The objects presented to him should be large because his sight is not quite developed, his fingers are not yet co-ordinated to hold tiny things, and also because the infant has a way of examining objects in his mouth which leads to choking if the object is small enough to fit into his mouth. At about six months of age the infant will discover his feet. They too go into his mouth for inspection and when he bites down on his new-found possession he abruptly learns that those feet are really a part of his own body. (An unfortunate carry-over of this experience is that some of us grown-ups seem to persist in the "foot-in-the-mouth" syndrome.)

As the baby leaves the crib, his environment grows. He sees new sights and feels new objects. Certainly a play pen is practical for the busy mother, but it can be moved to different areas so the baby can be

exposed to new adventures, e.g. the various smells and activities that happen in the kitchen. The baby should also have times to be free from a play pen. An oilcloth covering the carpet allows him to move around with a minimum amount of effort. During the baby's early life it is the parents' responsibility to see that electrical outlets in the wall are covered. These outlets attract the little fingers of an exploring baby. Fragile objects should be placed high enough not to be knocked down. Such precautions by parents are far better than constantly trying to train a baby not to touch. Later on he can be shown the importance of "Don't touch!"

Playing games with a child of any age serves many good purposes. Games are ways of learning visual and auditory skills and they help develop an infant's memory. Playing with the child is his invitation to feel close to family activities. Games show him lessons of safety, co-operation, and competitiveness. Incidentally, it is not a good practice to continually "fix" a game so a child wins. He must learn that life is not always easy and that he will not always have his own way. (Besides, early winning at games is often mentioned as a cause leading to later compulsive gambling.)

The most necessary environmental enrichment is people. In these days of the small 'apartment size'

family the child needs more than parents, a brother or sister, and a limited number of playmates. Grandparents and other relatives give the child an extended family and also a perspective of age. Friends of the parents show a child another slice of society. Some very close friends even become an "Uncle Greg" or "Aunt Susan" and very adequately become surrogate relatives for the baby of a small family. However, a child is not always ready to have people forced upon him. A three month old baby will often be very reserved around strangers and a six month old baby frequently shows a real fear of strangers -- a kind of "stranger anxiety". Later in life children are sometimes shy and hesitant to meet new people. Trying to look at the complex world through the eyes of a child helps us to better understand their many apprehensions. One of the many arts in raising a child is to balance his sociability at the same time he is being cautioned to avoid strangers who could lure him away for harmful purposes.

Readiness. An important practical fact for parents to understand about children is summed up in the word readiness. Readiness implies that stage in the baby or child when he is set to undertake a new task. A good example is toilet training. To force training too early

does little or no good and may likewise lead to parents'
frustrations which the baby may pick up as signs of
parental rejection. The physical ability must be ready,
e.g. control of the bladder and sphincter muscle, and the
ability to sit on the toilet. Moreover, the child must
also be ready to understand the meaning of certain in-
structions which accompany toilet training. Some mothers
boast that their babies are trained at six months or
earlier. Since some babies have a regular schedule of
defecation, the mother may capitalize on this regularity
and be alert for signs of the baby's discomfort and then
rush him to the bathroom. Such early "training" only
means the mother, not the baby, is trained. Usually bowel
control precedes bladder control and these come after a
baby can walk. Also daytime control precedes nighttime
control, and a mother just has to wait out the time
necessary for the baby to become ready. Timing is very
important to know when to begin efforts to train a child.

The same principle of readiness applies to nearly
everything a child learns: for example, holding a spoon
or glass, walking, or roller skating. Some children be-
come ready for tasks sooner than others for several rea-
sons including the presence of other children, inner
motivations, and parental efforts. But premature efforts
from parents may do more harm than good. The best guide-

line is still -- <u>readiness.</u>

Remember:

1. Maturation for all children follows a uniform pattern, but some children mature later than others in certain tasks.

2. Less training is usually required if the child has matured to the state of readiness.

3. Allow a young child to concentrate on working out one problem at a time. Too much input at one time can be confusing and will frustrate his output.

4. Give the child times and opportunities to make mistakes. (Sometimes children learn better from past mistakes than we do.)

5. Don't judge children's efforts or results by your own standards. They are not miniature adults.

6. Stimulate their imagination and creativity instead of solving all their problems for them

<u>Love.</u> Needless to say, the most important practical thing we can do for our children is to give them love -- and then more love. If the environment in which a child grows is a love-filled atmosphere, the child will feel the security, acceptance, and affection he needs to maintain and enhance his self-concept. Only then can the child grow up to become an adequate and fully functioning person. Much of what will follow on the next pages will

be an adjunct to giving love and to teaching your future child to also be loving. But perhaps the best way to inform your child about love is to fill his life with your love -- being assured that love is more often caught than taught!

Development of Personality

Up to this point discussion has been mostly about the _physical_ (and some mental) aspects of human maturation. It is now time to consider the child's _personality_ development. Certainly a person's physical maturation and his personality development usually go hand-in-hand and have direct interdependent relationships as we have already indicated. But for the purpose of better understanding how a person grows and changes totally, a separate treatment of personality development is covered in this section.

Personality can be described as a combination of behavior patterns or characteristics in a person which makes up _who he is._ Since any discussion of personality can cover a broad range of topics, discussion here will be limited to topics which are of practical value to parents or future parents.

All of our _physical_ characteristics are genetically inherited from our parents. But many of our

personality characteristics also come from our parents or guardians because they are the most influential persons during the first years of our lives.

Prenatal Influences on Personality

It has already been mentioned that prenatal pathology such as a mother's poor nutrition, toxic intake, and radiation can affect the baby physically. (Pathology: The study of disease and of impaired mental and physical functions including causes, processes, developments, and consequences.) But students often ask whether psychological (e.g. emotional) disturbances in the pregnant mother can affect the baby. A quick answer to this question is that more study and research is necessary before absolute prenatal cause and effect relationships can be established. There is some evidence that an emotional trauma of the mother during pregnancy can produce a chemical reaction releasing secretions into her blood stream which reach the embryo or fetus through the fluid interchange between mother and infant. Speculation is mostly centered on the biological results to the infant rather than any emotional carryover. For example, an emotional disturbance during the embryonic period can cause infants to be born with a cleft palate.

At this time the most assurance which can be given of psychological influences on the personality

of the unborn child is that most "old wives' tales" are worthless. Absolutely no evidence supports former claims that a pregnant mother listening to classical music will give birth to a musically talented child; or that a mother who witnesses lightning strike nearby will produce a nervous offspring or a child with a white streak in his hair.

Children and Their Emotions

Emotional development is more clearly observable after the child is born. Just as the child develops physically from the general to the specific, so too his emotions follow a similar general to specific pattern. The neonate shows only a general emotional response of **excitement.** It may be many months or even years before the child learns to be specific enough in his emotions to concentrate his emotion of fear, for example, toward a specific type of snake or a certain barking dog in his neighborhood. By three months of age the infant manifests clearly the emotion of distress. But it is months later before his distress differentiates into anger, distrust, and specific fears. Likewise delight, which is evident at three months, later specifies into affection or elation.

Not until much later does a child learn to control

his emotions of jealousy, elation, and anger. (Perhaps
some of us never adopt an adequate control for some
emotions.) Studies have shown that middle and upper class
children learn more emotional control than lower economic
class children but may experience more anxiety as a
result. Delayed gratification often is typical of the
middle class American: e.g. eating dessert after the meal
rather than before, or saving money rather than spending
it for immediate gratification. Regardless of the socio-
economic class, one can easily see the advantage of
children having a good adult model who can show both:
a) how to control certain undesirable emotional outbursts
and, b) how to freely express his feelings and not keep
emotions forever bottles up inside.

Since the emotion of fear is usually learned, a
child can "catch" fear of lightning and thunder from a
fearful parent. How much healthier it would be for the
same parent to point out what causes the thunder to be
loud and the lightning to flash and then invite the child
to realistically face the experience of a thunderstorm.
Other emotions like anger, hostility, and aggression are
handled by the wise parent who can be understanding and
realize that children of other parents also express such
emotions. If the parent can allow the child to communi-
cate his feelings and then explore with him the meaning

involved as well as the consequences of such behavior, the child's personality will be helped. A serious mistake made by parents is to reinforce undesirable behavior, such as a child's temper tantrum and pouting, by consistantly giving in to the child. Once children discover they can manipulate a parent with emotional flare-ups, they are in the process of learning faulty personality behavior which could last a lifetime.

An interesting sidelight to this discussion is the strong opinion among many psychologists that the emotions of parents also should be expressed around children. If children do not see healthy signs of affection and joy in the home, they are being deprived of learning how to show these feelings of warmth. On the other hand, if parents, due to compulsive self-control, refuse to show anger or irritation at any time in front of their children the parents are not being normal. Parents with pent up anger may also carry around resentment and guilt inside themselves which can sap a lot of energy out of any parent. In other words, giving a spanking may do more emotional good to the parent than its corrective worth to the child.

Discipline

It is far better to help a child gain self-control by showing love than it is to attempt to extinguish bad behavior by using force or fear. But even love imposes

limits and carries demands.

It is no secret that child and adolescent alike will test the limits and demands placed on them to find just where their boundaries of freedom are. Yet when they misbehave they are often really seeking out limits imposed by parents and they want to know how meaningful such limits are. If any doubt exists about boundaries, the child will usually put them to a test. Children not only need guidelines of discipline, but they welcome such guidelines in the long run as will be mentioned again in the next chapter.

Parents should agree between themselves about the use of the following discipline practices:

1. <u>Positive sanctions</u> for the child include expressions of love, rewards, and praise. Behaviorists have concluded that correct responses from the child which are positively reinforced by the parent establish stronger bonds of learning than using negative reinforcement or punishment to extinguish inappropriate behavior. Nor should children be raised with the idea that good behavior always brings rewards. Hopefully, they will accept the fact of life that family living includes cooperation and voluntary good behavior without always expecting a payoff.

2. <u>Negative sanctions</u> are also part of disciplinary

practices. These include withdrawing privileges and the
use of punishment. The Biblical advice of sparing the
rod and spoiling the child still holds much truth today.
But reason should rule over might. To use force without
a previous (or at least subsequent) explanation could do
much to increase the parent-child communication gap.

3. Reasoning is a third discipline practice. An
older child's behavior can often be directed by reasoning
with him. Reasoning is effective if both parent and
child develop the knack of being an active listener to the
other. Without understanding each other's feelings,
motives, and purposes, the parent and child might just as
well be living in two different homes — or worlds. Only
by active listening can reasoning be effective to direct
behavior. A wise parent can expand reasoning to include
the use of models (e.g. an older brother or the boy down
the street). A child's behavior can often be directed by
models the parent points out — but only to a point. The
overuse of models can have a very deflating effect on a
child's self-concept.

Whatever the moment calls for, parents (and
teachers alike) should administer discipline with fair-
ness, firmness, and consistency.

Perceptions of the Child

A young infant perceives his small world as a

fleeting kaleidoscopic picture. To him there is no stability nor frame of reference. Gradually as time passes, the infant begins to discover the reality of the world through perceptions which recur and take on some stability. He begins to make connections. Objects which are out of sight are no longer out of mind as they used to be for him during his first six or seven months.

Although most of us cannot remember many events in our life which occured before we were four years old, we now can try to recapture how we may have _felt_ as a baby. Only by trying to imagine a baby's feelings can we hope to understand the perceptual world of a child. Adults seem like giants to a baby, and punishment (without a court trial) may loom as a constant possibility. (Dimick and Huff, 1970) Before two years of age a child consciously exercises little or no freedom. His food and clothes are selected for him and his schedule of eating and sleeping are imposed. He is told to perform for guests -- then again told to be quiet when guests are present. Even after two years of age the child's freedom is still impaired, but now he can say "No", be disobedient, have temper tantrums, or even run away from home to show his displeasure with the local giants. He may or may not feel free when it is time to enter school. For some children school may be just another prison away from home.

(No doubt some of our present college students may agree with the psychiatrist, William Glasser, who poignantly remarked that our society has two institutions where time is the main factor in being released: prisons and schools)

A child's perceptive awareness of his own body is quite advanced by the end of infancy. But his self-concept undergoes much growth and many changes the rest of his life. The way a person perceives himself and his environment will influence, to a great extent, his manner of behaving throughout life. (Combs and Snygg, 1959) Therefore adequate and wholesome perceptions are very important to the child.

Certainly the child's perceptions are highly correlated with the type of care he gets from his mother. If he acquires good perceptions of himself and his world from his mother's care or from others who care for him, his total personality will reflect these perceptions. On the other hand, poor care from mothers or others can result in inadequate perceptions and thus cause children to have a personality riddled by anxieties. We have already mentioned stranger anxiety experienced in infancy. This may be caused because the child's perceptions have acquired expectations of what a familiar face (like his mother's) should look like. If a strange face appears, his perceptual expectation is abruptly altered. He under-

goes uncertainty and consequently experiences anxiety.

Beginning around ten months of age another kind of anxiety occurs in many children. It is called _sepa-ration anxiety_ because it happens when the child sees his mother leave him or when he perceives himself as being all alone for a long while. The child has learned to depend upon his mother for nearly everything, and the sudden feeling of her absence is threatening, he becomes anxious, and may cry in distress.

Throughout childhood other anxieties result from any number of frustrations or disruptions in the order of his life. Anxieties, although unpleasant, are unavoidable and often necessary in the long run. Concerned parents, armed with this understanding of anxiety, will do two things: a) avoid traumatic perceptual changes for the child and b) expose the child from time to time to a variety of less extreme changes such as short travels or excursions. He will then not lead an overly sheltered childhood, and his perceptual field will be expanded sufficiently to cope with minor changes.

The Child's Socialization

No two children are alike. Each one has his or her own individual personality. A mother who is thought-ful and aware of her children is the first person to understand the unique personality of each child. She will

vary her modes of caring for and relating with each child as their interpersonal relationship develops. Thus the child's socialization begins.

Maternal Influence. Harry Stack Sullivan and other psychologists point out the importance of the inter-personal relationship which exists between mother and child. A "give and take relationship" between mother and child lead Sullivan (1953) to hypothesize that a mothers anxiety can rub off onto the child she is caring for as was implied above. But to go one step further, the "Mother" can be anyone caring for the child: an abrupt father, a nurse who is more a baby technician than a gentle caretaker, or an older brother or sister who may become impatient with the child. If these substitute mothers by their poor interpersonal relations with the child increase his anxieties, his socialization process may ultimately be impeded.

From Sullivan's viewpoint, mothering involves much tenderness, which in turn provides security for the child. A healthy communication can be carried on be-tween mother and child during their many moments together, e.g. feeding, bathing, and changing diapers. If we can assume with Sullivan that the emotional state of the mother does affect the child (although few studies have been made to empirically prove this assumption), we might

have a plausible explanation why some babies are more
socially serene while children of another mother may be
more fussy. (Jersild, 1968)

But there is another side of this story of the
mother-child interpersonal relationship -- changes in the
mother's own personality. If we remember that a child's
personality is uniquely his own and not necessarily the
exact imprint of his mother's personality, then it is fair
to assume he will also influence the personality of his
mother to some degree. We are talking here of a more
subtle transformation a child may make on his mother
rather than the sudden annoyances a mother displays when
her child misbehaves. It is true that a woman's basic
socialization process is changed when she first becomes a
mother. But it is also true that the mother's social-
ization is subject to further ongoing changes because her
own personality is continuously affected by the person-
ality of her child or children.

The Dangers of Separation. The child's process of
socialization can be impaired by separation from his
parents. There are numerous studies showing the import-
ance of his not being isolated or separated from loving
ties. Socialization does not take place in a vacuum, nor
does it take place adequately where human love is minimal.
Babies need loving care almost to the degree they need

oxygen and proper nutrition. Gentleness and affection are even needed for lower animals like the laboratory monkeys used by Harlow (1958, 1962) to demonstrate this point. Harlow and his wife raised some baby rhesus monkeys separate from their mothers and reported that some actually died. Those who survived were not normal. They grew up as "neurotic" monkeys. Some could not have a normal sex life, and those who did have babies did not care for their offspring.

Similar dramatic results are true also for human infants who are motherless during the early critical years of their personality development. Spitz (1945) made a study of children separated from their mothers. His study, which has been criticized but has also found many supporters, was carried out in two institutions. The first was a nursery for babies of mothers in jail who were allowed to take care of their own babies. The other institution, a foundling home, had more adequate facilities in terms of location, food, and medical care. But the foundling home had only ten nurses to provide care and love for eighty-eight infants. (Perhaps one of the most important functions of a nurse is to hold and cuddle infants.) The importance of early mothering was seen in the different outcomes of the two sets of infants. Children with their mothers in the prison nursery

developed normally. Those in the foundling home with little or no mothering had drastic consequences. After two years, 37 percent had died, and those who survived were later extremely deficient -- some not learning to speak, walk, or feed themselves.

Not only is some kind of physical mothering vital in the first years of a child's life, but also necessary are the qualities of love which must accompany that mothering. Qualities of love include the whole spectrum from warm affection to proper discipline. If parental love is lacking, a child may suffer in many ways. A growing phenomenon in our country is the battered child syndrome. This frightening spectacle occurs when one or both parents cruelly beat their child -- sometimes to death. One speculation to explain why parents beat their children is that the parents' own childhood was deprived of many important qualities of love.

The Child's Father. In the very early life of an infant, the role of the mother is usually stressed, as we have done here, because she is the child's most constant companion and caretaker. But in the past decade many child psychologists have rethought the importance of the father's role with his growing children. Sociologists as well might tell us that fathers today are assuming a different philosophy toward their children than the text-

book father of former generations. Today's fathers often find themselves in the role of caretaker for their children during the hours when wives are liberated from the domestic scene. A father who cheerfully accepts the task of changing diapers and otherwise is a "significant other" for his child will certainly develop close father-child ties.

One aspect of the father-child relationship is identification. The term identification has more than one meaning in psychology and psychiatry, but here it means a child's imitation of, and close affiliation with, heroes (hopefully including parents), sharing in their attributes and learning how to be like them as the child develops social roles. Obviously the presence of a father is very important to a son, as is the presence of a mother to a daughter. The son will learn his masculine role through identifying with a father who is truly masculine. However, the term masculine should never be confined to mere physical prowess, but should include manly qualities of compassion, warmth, and acceptance. A father who is secure in his male role and who is in every sense a gentleman will be a healthy model with whom his sons can identify as their personality is developing. Young women selecting a marriage partner might well consider what kind of father her future husband will be.

Not only will a son's personality be affected by his father, but a daughter's personality is also influenced by her father. For most daughters the first man in her life is her father and to a large degree she learns how to relate with other males if she has experienced good interpersonal relating with her father. The father's communications with her, like holding her as a baby, talking with her, and generally treating her like a feminine person will doubtlessly help develop her self-concept and her total female personality.

Where the father of a young family is absent through death or divorce, it seems reasonable that some male model should be present for the development of the children's personalities. Surrogate fathers often are grandfathers, uncles, a next door neighbor, a teacher, or volunteers from the local Big Brothers organization.

The Ongoing Nature of Socialization

Exploration. As the baby grows into a child, patterns of socializing he learned earlier will be expanded to contribute to his personality development. For example, the baby whose home provided an enriched environment in which he could explore may, as an older child, continue this trait of exploring his bigger environment. Curiosity and adventure are favorable corollaries in an

exploring child. While safety and discretion are important lessons a child must learn in his process of exploration and discovery of life, an overprotective mother could unwisely thwart life's challenges which confront her child. Instead of insisting on absolute neatness, cleanliness, and quiet, a confident parent can encourage spontaneity, independence, and other exploratory behavior which will enhance a child's self-reliance.

Negativism. Socialization is not always smooth sailing for either child or parent. If rough seas make an experienced sailor, then stressful periods of development help the child's personality grow. An example is the period of negativism. The negative stage in development is roughly between eighteen months and three years of age. During this time the "No!" is frequently used. Refusal to be toilet trained is an example of negativism. Symptoms of the negative child are screaming, biting, and pouting. The child is trying out his independence after having been dependent as an infant. A skillful and understanding parent can help the child through the negative stage so he learns to balance his independence with the give and take life of the family and society.

Sibling Rivalry. During this same period the toddler will begin to appreciate sibling relations.

(Siblings: children of the same family.) But this stage of development also marks the beginnings of sibling rivalry -- the competition, jealousy, and warfare between brothers and sisters. A frequent rivalry exists, for instance, between a two-and-a-half year old and the newly born baby just home from the hospital who now seems to get all the attention he once had. Parents who are sensitive to the older sibling's jealousy will attempt to convert rivalry into relationship. Such attempts do not always succeed in eliminating jealousy, but parents can encourage the toddler to share familial feeling for the newcomer, and wise parents will continue to show much affection for the older child. Not infrequently will an older sibling regress into former behavior patterns to regain parental affection. Examples of this regression are whining, infantile baby talk, and a return to bed-wetting. Anything will be tried to get back into the spotlight again.

Sibling rivalry can occur at any age level, as anyone knows who has a brother or sister. Bitter sibling competition, jealousy, or any feeling of inadequacy are not pleasant sensations but they may prove in the long run to be a necessary learning experience in the socialization process as one's personality develops.

<u>Annoyance</u>. If the child and parents have resolved the negative stage mentioned above, there is a stretch of relative tranquility in the child's temper and temperament. However, peace does not last long. At about age six a second negative period emerges which is sometimes called the "stage of annoyance". Symptoms of the child's annoyance are displayed in his being bossy, impulsive, and indecisive. He is adjusting to his growing body, freedom away from home, and school life. Sometimes he feels over his head in new experiences, and he will often cover this feeling up with a know-it-all attitude. Emotionally he is easily upset. Around this period nightmares in children occur most frequently.

But all is not stormy for the child during this stage of development. The child is learning cognitively, he is doing creative thinking, and overall he is coping with the world around him in the important ongoing process of his socialization.

A Child's Value System

Part of adjusting to society (or even helping to adjust society) depends on our system of values or our beliefs. More will be said about this in the following chapter on adolescence, but here we can briefly mention the child's introduction to values. The first conscious awareness a child has of values is probably when he

assumes responsibility for right and wrong behavior. The process of doing right and wrong acts is dependent upon what we call conscience. Freud put the development of conscience at about age three. Conscience tells us what values and beliefs we hold, and conscience develops as the person grows in age and maturity. But where does the child first learn his values and his own limited set of beliefs? They begin from others who successively influence him: parents, glamorous people, attractive adults who are around him, and peers. Certain composites of attractive people also are influential; for example the typical boy scout, the professional ball player, or the story book airline hostess. But the most influential contributors of values and beliefs to a child are parents.

Parents instill values in their children either directly or indirectly. For example, if religion is an important value for the parents, they will directly instill religion on the fully conscious level by teaching their beliefs to the children and by having their children share in some meaningful religious experience or service. On the other hand, these same parents will also indirectly convey their own religious values to children by their behavior -- living out their internal convictions. In so doing, the parents may not be making any conscious effort to impart a religious attitude but this value is

being transmitted through actions which often speak louder than words.

Any other value or virtue, such as honesty, obedience, or modesty, can be imparted in a similar way. Take the example of courage. Parents do not simply sit down with their son and explain courage just before he enters the armed forces, but rather he has somehow absorbed certain qualities of courage which his parents and others have directly or indirectly given to him from his early childhood.

Two Theories of Personality Development

Different aspects have been seen of how one's personality develops from conception through childhood. These early years are considered the most formative for developing the various traits of behavior which make up our personality. A personality is never frozen tight after a given period -- it always is subject to change and growth throughout life. But most psychologists agree that a definite pattern of behavior is firmly established during infancy and early childhood.

This book mentions various theories of personality, but at this point two theories can be briefly discussed showing how personality develops especially in our formative years. These theories of Freud and Erikson

both belong to the psychoanalytic school which places much emphasis on a person's early years and his unconscious struggle to reduce tensions. It is well to keep in mind that these theories are just that -- theories. The general principles established by Freud's theory especially are hard to prove empirically; nor can they be written off as pure myth.

<u>Freud's Psychosexual Development Theory</u>. Freud hypothesized that the one psychologically important motive in our development is sexual in origin, encompassing the idea of procreation and life itself, not just a physical act. From his earlier writings five stages can be identified through which a child passes in his psychosexual development.

The earliest developmental period Freud presents is the <u>oral stage</u> occuring during the infant's first year. In this period sexual pleasure (in the very broad sense) is gratified through the oral or mouth region. According to Freud, if the infant is deprived from sucking and other oral activities he will develop an oral fixation which in later life is characterized by the oral syndrome; namely excessive oral behavior, greediness, and passive dependency. (It would be unwise and quite unnerving for the reader who is just beginning the study of psychology to

make any speculations or judgments about your acquaint-
ances who like to smoke, kiss, or gossip a lot. Similar
cautions hold true of the following stages as well -- for
obvious reasons.)

The anal stage during a child's second and third
years often arises in connection with harsh toilet
training. If training is too strict, causing anxiety in
the child, the anal syndrome may appear in later years
identified by compulsive behavior and excessive self
control or conformity.

The phallic stage between ages three and five
follows the oral and anal stages if they have been re-
solved normally. In this third stage the child's plea-
sure comes through fantasy and "romantic" feelings to-
ward the parent of the opposite sex. Freud labeled such
feelings the Oedipus complex to describe a boy's attrac-
tion to his mother and his jealousy toward his father. In
the Greek tragedy King Oedipus unwittingly married his
mother. (Girls' excessive attachment to their fathers is
called the Electra complex.) During this crucial period
of development, the super ego arises and a person's con-
science is begun. Resolving the Oedipus complex occurs
when the son can comfortably identify with his father,
and the daughter with her mother.

Following the phallic stage is a relatively quiet

sexual period called <u>latency</u>, the period where sexual impulses have been repressed through resolving the Oedipus complex. It is a period of physical activities and separation of the sexes into like-sexed groups.

Latency lasts until adolescence when the fifth and final period, the <u>genital stage</u>, is initiated by the onset of puberty. True heterosexuality is the foundation of the genital stage and the child, emotionally emancipated from his parents, acquires healthy adult sexual feelings.

Freud has been severely criticized by even his own disciples for his overemphasis on sex. But the point to be made here about Freud's theory is that our personality is well adjusted in later life if we have successfully passed through various childhood experiences.

<u>Erikson's Psychosocial Stages</u>. Erik Erikson (1963), a current psychoanalyst, presents another way of viewing personality development. Social development and periods of conflict, not sexuality, form the cornerstone of Erikson's stages. But, like Freud's stages, a person who successfully works through each of Erikson's eight life crisis periods as he matures can possess a healthy and well developed personality.

In the following chart on page 165 the psychological conflict or crisis mentioned in each stage is

successfully resolved if the first alternative in the second column is mastered. Then the favorable characteristics listed in the last column will become evident, often through the significant relations (third column) the person has. For example, in infancy, it is hoped that the infant will acquire trust feelings from his mother to displace any possible mistrust. With his basic needs met the infant will then have the feelings of goodness.

The Three Schools

Erikson's stages lead naturally into the next chapter which deals with adolescents and adults. To conclude this discussion of the child's physical and psychological development we can look briefly at the ways the three major schools of psychology might regard this part of developmental psychology.

Behavioristic Viewpoint. For the behaviorists, physical growth is of course observable and can be measured. Psychological growth is also subject to empirical research in terms of a person's external behavior. Verification of how adequately a person adjusts in life is obtained by observing his behavior and comparing it to what is considered desirable or optimum. We are determined by our environment and we are thus limited, but at times even the environment can be manipulated to help a

STAGE	PSYCHOLOGICAL CRISIS	SIGNIFICANT RELATIONS	FAVORABLE CHARACTERISTICS
I. Infancy (First year)	Trust vs. mistrust	Mother	Feelings of inner goodness
II. Early Childhood Age (2-3)	Autonomy vs. doubt and shame	Parental persons	Consistant discipline, but with free choices
III. Play Age (3-6)	Initiative vs. guilt	Basic family	Direction and purpose; adult confidence in him.
IV. School Age (6 to puberty)	Industry vs. inferiority	Neighborhood; school	Learning intellectual and social skills
V. Adolescence	Identity vs. self-diffusion	Peer groups; leader models	Healthy self-esteem; seeing role & life goals
VI. Young Adulthood	Intimacy vs. isolation	Friends; love partner	Finding one's self in affiliation and love
VII. Adulthood	Generativity vs. self-absorption	Fellow workers; own household	Creative life work for growth of others
VIII. Later Life	Integrity vs. despair	Mankind	Self-confidence; wisdom, continuity with mankind

Source: Modified from Erikson, 1963.

Table 1

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of his child rather than vice versa as we see too often
in many homes today where children are spoiled. Skinner
also contributed greatly to childrens' formal learning by
introducing teaching machines for programmed learning.

<u>Psychoanalytic Viewpoints.</u> In the latter part of
this chapter we presented Freud's and Erikson's stages of
development as two representatives of the psychoanalytic
approach to understand developmental psychology. They,
like most psychoanalytic people, place much importance
upon early successful parent-child relations. Other
psychoanalysts vary their theories of development from the
general theme that man is always seeking to avoid tensions
and conflicts which to some extent determine one's be-
havior and personality. For example, Adler claimed we
spend much of our life compensating for our feelings of
inferiority. Our personality develops as we strive for
superiority. Adler also points out the importance of our
interpersonal relations which can contribute or detract
from our personality growth.

Jung said our personality is affected by symbols
of life and by various memory traces of mankind's past
(see Chapter II). Jung also claimed that some person-
alities are introverted from an early age onwards while
others develop throughout life into more outgoing or ex-
troverted patterns. Adult personality characteristics

can therefore be traced to early childhood patterns.

The neo-Freudian, Karen Horney, stated that as a child grows up he or she tries to avoid anxiety which often comes from one's parents. This early anxiety is a feeling of isolation or helplessness in a hostile world. How a child resolves these feelings determines and shapes the nature of his personality in adulthood.

The great contribution of the psychoanalytic school to developmental psychology is, of course, pointing out our unconscious behavior throughout life and also pointing out our constant efforts (and failures) to cope with the real world around us as we develop physically and psychologically.

The Third Force Viewpoints. Earlier it was stated that the perceptions of a child are important in determining not only his behavior but also his inner concepts. Perceptual psychologists of the third force therefore see the need of children being presented with an enriched environment where new perceptions can be established. Parents and other adults can help children form honest and healthy perceptions. As a result, the child will develop the healthy self-concept of an adequate personality. This means that he will see himself in positive ways, will be able to accept himself and others, and perceive himself as closely identified with others. (Combs and Snygg, 1959)

Because many psychologists who ascribe to an existential philosophy are growth oriented, they place great importance on children having experiences of exploration, discovery, and expanding conscious awareness. Our consciousness becomes our determination. A person's free will, more than the psychoanalysts' innate drives or the behaviorists' environmental factors, determine our action as we become free from parental care and peer restrictions. A further existential concept is transcendence -- the inclination to exist for more than just the mundane now. The "eternal now" (including man's ultimate meaning and destiny) raises one's sights and goals to give him further direction in life and thus his development takes on ever new dimensions as he grows.

Humanistic psychologists in general urge that children be exposed to persons who have positive and healthy personalities themselves. Rich interpersonal relationships with parents, peers, and elders are part of the psychological growth process for a child's development. Love for and from others is a vital part of his self-growth.

The goal of a child's personality development will hopefully be self-actualization (see Maslow, Chapter III). If the child's physiological and safety needs are met when he is young, and he has a childhood where significant

others share love with him, and if self-esteem is part
of his life, then the child may well be on his way to
freely strive for the goal of being a truly self-act-
ualizing person.

BIBLIOGRAPHY

Combs, A. and Snygg, A., Individual behavior. New York: Harper and Row, 1959.

Dimick, K. and Huff, V., Child counseling. Dubuque, Iowa: Wm. C. Brown, 1970.

Erikson, E.H., Childhood and society. (2nd ed.) New York: Norton, 1963.

Frankenburg, W.K., and Dodds, J.B., The Denver developmental screening test. Journal of Pediatrics, 1967, 71: 181-191.

Harlow, H.F. and Harlow, M.K., Social deprivation in monkeys. Scientific American, 1962, 207, No. 5, 136-146.

Jersild, A.T., Child psychology (6th ed.) Englewood Cliffs, N.J.: 1968.

Millon, T., Modern psychopathology. Philadelphia: W.B. Saunders, 1969.

Piaget, J., The construction of reality in the child. New York: Basic Books, 1954.

Spitz, R.A., Hospitalism: an inquiry into the genesis of psychiatric conditions in early childhood. Psychoanalytic Study of the Child, 1945, 1, 53-74.

Stone, L.J. and Church, J., Childhood and adolescence: A psychology of the growing person. (2nd ed.) New York: Random House, 1968.

Sullivan, H.S., The interpersonal theory of psychiatry. New York: Norton, 1953.

CHAPTER V

DEVELOPMENTAL PSYCHOLOGY: ADOLESCENCE THROUGH OLD AGE

The preceding chapter explored the physical and psychological development of the individual from the prenatal period through childhood. The remainder of a person's life is not just a tapering off period or merely a long span of years when one's body and personality are continuously adjusting to the environment during the process of growing old. Post-childhood years are also a series of developmental periods wherein growth and change (maturation) are dynamic and dramatic. Adolescence and adulthood cover the largest number of years in a person's life, and it would be erroneous to think that development is not constantly going on physically, socially, emotionally, and in many other ways.

Adolescence

The most obvious and eventful period of development after childhood is adolescence, the period between childhood and adulthood. Everyone seems to know who the adolescent is, but opinions vary on what adolescence is.

A policeman may have a different view of adolescence than a medical doctor. A juvenile judge may see adolescence differently than a parent. Even the psychologist may not regard adolescence the same way as the actual adolescent. A partial explanation for this inability to arrive at an adequate definition is because adolescence is more than one thing. It is a period of time, and it is also a style of life. It is a subculture, and it is a frame of mind. Adolescence is no one thing. To further add to the difficulty once "adolescence" is put into the strait jacket of a definition, a couple years later that definition is nearly obsolete.

For the sake of some clarity and direction, adolescence here will be described from two points of view: first from the physical aspects, and second from the psychological aspects. The physical considerations will be more brief than the psychological because they are somewhat more stable and thus easier to pinpoint.

The Physical Aspects of Adolescence

Some definitions given by Stone and Church (1968) may be followed to understand three important terms within the period between childhood and adulthood.

Pubescence. The period of about two years prior to puberty is called pubescence. During this prepubertal

span there is a noticable spurt in physical growth which is quite dramatic when compared to the immediate preceding years of latent growth during late childhood. Body and facial proportions change. For example, the nose may appear somewhat large until the rest of the face "catches up". The primary and secondary sex traits begin activity during this period, but these traits mature more fully in puberty.

Puberty. The period in life when sexual maturing becomes evident is called puberty. Two main sexual characteristics which occur during puberty: (1) the primary sex characteristics which are activities of the reproductive organs, and (2) the secondary sex characteristics which include the appearance of pubic hair, breast development in girls, and facial hair and deeper voice changes in boys. The primary sex characteristics of a girl's first menstrual flow (menarche) marks her arrival at puberty, as does the appearance of live sperm cells in urine of boys.

Scientific research has pointed out that the menarche may better be considered as the midpoint of puberty for a girl. A girl's menstruation at first may be quite slight and irregular for some months. In fact, a period of "sterility" (no ovulation) may exist for six

months or longer after menarche." Boys may have erotic sensation accompanied by an erection of the penis prior to pubertal maturation," but ejaculation of the semen may not occur." When it does occur, sometimes during sleep in a nocturnal emission ("wet dream")," then puberty has been reached.

The actual age at which these events occur differs widely for various youngsters, with boys generally lagging behind girls a year or two. Usually the age of twelve is cited as the age of puberty for girls, and fourteen is designated for boys. Hurlock (1967) claims at the present time about 50 percent of American girls are sexually mature enough to produce sex cells at about age 13 for middle and upper socioeconomic groups, and at about 13.5 for lower groups (who's health and diets may not be the best)." Boys mature about a year later than girls at an average age of 14.5 years. The other 50 percent of youngsters are either "early maturers" or "late maturers" and are about equally distributed on either side of the average age." The most marked differences noticed between the two sexes occur between the ages of 12 and 14 years because then there are more mature girls than boys." These differences are not only observed in the larger physical bodies of girls (the only developmental period when girls' size is larger than boys'), but also in their psycho-

logical maturity which will be discussed later.

Adolescence. The third term to understand, along with pubescence and puberty, is adolescence. As stated earlier, "adolescence" can have many meanings, but in terms of <u>physical</u> development it includes the span of years beginning with the prepubertal growth spurt and continues until full physical (and psychological) maturity -- whenever that may be. Within the total number of years of adolescence, two periods can be distinguished. <u>Early</u> adolescence is from the beginning of pubescence until about a year after puberty. <u>Late</u> adolescence is the rest of the time up to adulthood. The legal age for adulthood may be twenty-one years, but physical and especially psychological adulthood varies greatly from person to person, and "full physical maturity" is ambiguous and difficult to define.

The glands. Physical growth during adolescence involves the obvious increase in size and strength of muscles and bones and development of neural patterns. Moreover, various glands in the body play a very important role in adolescent changes and growth. The <u>pituitary</u> gland ("master gland") is especially important because it produces hormones which trigger off other glands responsible for adolescent development. Of these other glands

the _adrenal_ glands regulate sexual characteristics. When certain adrenal hormones begin to secrete prior to puberty they influence the secondary sex characteristics of body hair distribution and the lowering of the voice. Both boys and girls experience a lower tone of voice but, of course, more so in boys. Overactivity of the adrenal hormone can result in _virilism_ which is accentuated masculine characteristics like a very deep voice or a heavy growth of beard. Unfortunately this condition sometimes appears in women, and the extreme case is the "bearded lady" in the carnival. Adrenal hormones also contribute to the appearance of pimples in both boys and girls.

The _gonads_ are also endocrine (ductless) glands which secrete hormones into the bloodstream in increased amounts when sexual maturation begins. The female gonads are the ovaries, while the male gonads are called the testes. As the ovaries develop during adolescence, they begin to dispense ova (eggs) at the average rate of one ovum every twenty-eight days. As the testes develop, they produce the male sex cells called spermatozoa (sperm or seeds) which are periodically released or ejaculated in large numbers. In sexual intercourse the male semen (about a teaspoonful of fluid) will contain upward of 350 million spermatozoa. The gonads work in a reciprocal way with the pituitary gland. First, the pituitary stimulates

the gonads: the gonads in turn react on the pituitary
gland so that it will further reduce the growth hormones.
Thus the time for physical growth is finished when the
period of adolescence is completed.

Earlier maturation. During the years of physical
adolescence, a person's height increases about twenty-five
percent, and weight nearly doubles. But there is a
noticeable trend today for even earlier maturing and for
more increased maturational levels than in previous years.
Two generations ago a fifteen year old boy was about two
inches shorter and ten pounds lighter than his modern
counterpart. Girls were about half and inch shorter, but
conversely, today's girls between seventeen and nineteen
years of age are about three pounds lighter than their
grandmothers were at the same age. This fact may reflect
changes both in diet and in concepts of beauty (Stone and
Church, 1968).

Earlier maturing is shown in studies by Tanner
(1970), who claims that menstruation, for example, is
occuring four to five years earlier today than in 1830,
and there are signs that the trend in earlier maturing will
continue. Good health and better nutrition seem to con-
tribute to earlier maturation.

At the same time that people are maturing earlier,

they seem to be entering into adult roles at a later age than young people formerly did in our Western society. Years ago young people worked in fields and mines and factories alongside their parents. There wasn't much of a transition period from childhood activities to adult responsibilities. Today, after the enactment of child labor laws and mandatory school attendance until a certain age, young people, while maturing sooner, are delayed longer from entering into adult tasks. Added to this long period is the further delay that comes with more years in college and/or the military service which further prevents the independence necessary to assume typical adult responsibilities.

The offshoot of these two variables -- (1) earlier maturing and (2) later entrance into 'adult roles' -- is the phenomenon of a longer period of adolescence. Generations ago the period of adolescence was much shorter, and in some cultures outside the Western world, the concept of adolescence is practically non-existent. It is this relatively new phenomenon of the longer period of adolescence, with its own peculiar life style of being neither child nor adult, which contributes to psychological aspects meriting our consideration.

The Psychological Aspects of Adolescence

Everyone can recall his or her own adolescent

years and the feelings experienced — sometimes marvelous,
sometimes dreadful. Similar feelings may occur at all
stages of one's life, but because of our country the stage
of adolescence has assumed its own definite period of life,
some psychological traits seem to be more proper to the
teen years than to any other stage of a person's develop-
ment. A few of the unique psychological aspects can now
be pointed out briefly.

Emotional and social adjustment. Because the
adolescent is undergoing dramatic physical changes, he
also is likely to experience parallel emotional fluxu-
ations. Some young people in their teen years escape any
noticeable emotional changes as they remain fairly well
adjusted to their parents, peers, and culture all through
adolescence. Perhaps at times too much fussing is made
about these years of "storm and stress" because the vast
majority of people pass through them and emerge in quite
good condition; a little more experienced, more mature,
and often much wiser.

However, during the actual days and years of
adolescence, a storm may rage within many young persons.
If he makes poor judgments (and his lack of mature wisdom
may often lead him to such improper choices), he may then
receive negative 'feedback' from parents, teachers, or
even from his peers. This unwelcome feedback, combined

with his own knowledge of having made a mistake, can cause him to become quite depressed. Overtly he then appears sullen, moody, or at best reserved. As consequent behaviors he can choose from the options of being more cautious and retiring, or he may launch out to prove his point by becoming obstinate, overbearing, and inconsiderate. If either of these behaviors seems to work well, he may decide (consciously or unconsciously) to maintain such a behavioral posture for some time. In other words, he may develop a personality pattern with which he can cope adequately with his critical society and with his own hurt feelings.

Parents and teachers can be helpful by providing some honest positive feedback to the adolescent when the occasion merits it. No one wants a steady diet of negativism from others. If the opportunity seldom arises for "glowing reports" from parents and teachers, at least they can maintain a good sense of humor about the young person, trying to laugh with him -- not at him.

Much emotional stress in the teen-age person is alleviated by identifying with his own age group. Conformity to peer groups (e.g. in a school club or on a team or at the nearby 'hangout') is a big step forward to being accepted by others. Their conformity through opinions, activities, speech, or dress prompts Horrocks (1969) to

conclude that young people are essentially <u>conservative</u> where their own age-mates are concerned. Such conservatism is not apparent to teachers and parents who view their conformity as a radical (sometimes threatening) departure from adult standards.

The more the adolescent mingles with his peer group, the more important peers become in his life, and less apparent is the importance of other groups like school, church, or even family. Secrets are shared and confidences are best kept wherever a person feels strong loyalties. A younger child may feel close loyalties to his parents, and an adult may feel them with a marriage partner, but the adolescent often experiences greater loyalties with his peers than with anyone else.

Motives and needs. Since the adolescent is 'forced' to survive in his $15 billion subculture (which now spans over more years than ever before in our history), he will naturally be <u>motivated</u> toward his own peer group and their shared goals as just stated. Along with this motivation is the movement 'away from' (emancipation) absolute adult authority and parental restrictions. In his efforts to become emancipated he will periodically, but persistently, test the limits of adult authority. Junior and senior high school teachers experience this limit testing daily from students. The successful teacher, in

terms of discipline, will understand the motivational dynamics of the students and will allow the needed freedom for their growth, while at the same time making it clear where the limits are. These limits must be reasonable -- firm, yet fair, and occasionally flexible. Not only does classroom order require such limits for the learning process to be assured, but students themselves feel an inner need for some limits. Very often, the reason students do go to extremes in their classroom behavior (or at home) is simply to find out and make sure what their limits actually are. Once the limits are known, the adolescent feels secure and, if he is a reasonable person, he will then enjoy his freedom within those limits and even desire to conform to many standards set down by those in authority.

Feeling secure is one of many _needs_ for the adolescent. A whole book could be written on their many other psychological needs. In addition to the universal needs (for all of us) presented by Maslow (see Chapter III) and the specific needs from the psychoanalytic school (see Chapter II), there are other needs which seem most necessary during the age of adolescence. Anyone wishing to work most effectively with adolescents is told by Bhojraj (1961) to try to understand their needs. Earlier Murray (1938) elaborated on this point by saying that no one can get along without having some notion of another's

"motivational force" -- needs, instincts, drives, impulses, urges, inclinations, and desires. Such a motivational force is indeed active in the average adolescent.

The additional needs of adolescents to be mentioned here are by no means an exhaustive list, but rather they form a typical list for young people. These needs come from a recent study by Horrocks (1969) and Weinberg involving 654 boys and girls from ages 12 through 20. Their most enduring needs during adolescence were found to be:

1. The need to conform to the behavior, values, and standards of some individuals or groups (parents, teachers, peers).

2. The need to receive unqualified and deep expressions of affection.

3. The need to work hard and to attain worthy goals.

Identity crisis. A further need for the adolescent is a striving for identity -- the secure sense of knowing one's self. Recalling Erikson's psychosocial stages from the preceding chapter, adolescence is the stage when a person is faced with the main psychological crisis of arriving at a personal identity instead of having one's self be so diffused as to lose one's inner self and meaning. In finding his identity the adolescent will feel and act in tune with himself, his capacities,

and his opportunities (Erikson, 1963).

Identity is important to the adolescent who has emerged from childhood where he has just learned some skills for integrating with others. In junior and senior high school years adolescents are beset with the physio-logical revolution of their genital maturation and psycho-logical uncertainty of the years ahead (Erikson, 1968). Identity-seeking is observed in their efforts to establish their own social culture wherein they can share mutual feelings of continuity. This continuity must now include sexual maturity, freedom to make some independent de-cisions, and the desire to make something work -- their life.

Sexual development. A definite part of the adolescent's identity is his or her awareness of sexual change and maturation. In sexual development the physical changes and psychological changes are engaged in a race to catch up with each other. Bodily changes in sexual devel-opment can contribute to psychological feelings ranging from embarrassment to security and esteem. An adoles-cent's view of sexuality is to some degree shaped by his or her parents' attitudes toward sex. If affection at home has been hidden, or if sex has been treated as 'dirty' and unmentionable, the child may have grave anxieties whenever his very natural genital feelings begin to

develop.

Parents are often apprehensive about the onset of sexual feelings in their offspring who are approaching adolescent age. They worry about their son's possible promiscuity or their daughter's possible pregnancy. A home where communications are open between children and parents, and where love, affection, and sex are treated with naturalness, is a home which is already teaching sex education and not leaving such instruction up to schools or the children's peers. Some wise parents view their children as having many needs or empty spaces to be filled with such things as hobbies, adventure, learning, games, humor, and companionship. If all these empty holes are filled at needed times during a child's development from an early age, then as the child reaches adolescence, his daily activities will already be occupied and fulfilling. When his natural inclinations about sex finally do arise he will still have his other interests and occupations to be a balance in his life. He will therefore not become overly preoccupied with the onrush of sexual interest. It will fit well into his existing total pattern of daily interests and activities without necessarily becoming his overwhelming obsession.

Education of sexuality. "Sex education" is often a misnomer because its name implies an education about

copulation and reproduction only. A more total view might be had if one would think in terms of "education of total sexuality". The term sexuality has broader concepts than just the biological sex act. It implies that males and females do not just have intercourse in a physical way, but that real male-female relationships consist of intercourse in communications, understanding of inner feelings, and relating in societal male-female roles.

Sexuality (not mere sex) in a male, for example, influences his thinking, emotions, spirituality, self-concept, and numerous interpersonal relations in his daily life. He should be educated to act and react like a male totally, not merely in the marital reproductive act. He can also be made aware that females are different from males in many ways besides in the sex act. He can be educated not only about woman's physiology but also about woman's psychology: her ways of communicating, her subtle feelings, her desire for affection which is different from his desire for 'sex', her loneliness, and her moments of silence. Conversely, the adolescent girl can be educated to the above corresponding male personality characteristic. This is education for total sexuality.

Where can "sexuality" be taught? In the home, where boys observe a loving and considerate father who shows affection to his wife in a hundred small ways, and

where girls learn femininity from their mothers. The home

can be a school where children learn that true love is far

wider than mere sex; where answers are not only given to

every question but where questions are anticipated; where

children see parents kissing and meaning it, communicating

and not just talking, and working at love instead of just

waiting for love to happen. Home is therefore one place

where total sexuality is taught by being lived.

The school is also a place which can give more

than mere "sex education". Movies or slides and talks by

a doctor, clergyman, and married couples are fine, but are

usually limited to just a few hours. Why can't each

teacher be aware that students are more than potential

machines for making babies, or for avoiding venereal dis-

ease? The average junior and senior high school curri-

culum presents countless opportunities to instill healthy

concepts of total sexuality. Schools can certainly pro-

vide a positive education about masculinity and femininity.

Some quick examples are: English literature is filled with

examples of good love and of bad love which can be dis-

cussed in class; history and the social sciences are

filled with men and women who were aware, or less than

aware, of what masculinity and femininity really means;

physical education classes, while concentrating on the

male and female bodies, should not ignore the male and

female psychology.

Total approaches to sexuality in the home, in the school, and also in community organizations can do great service in making adolescents more secure in their own masculinity and femininity and also can allow them to grow in more total self-awareness and in the awareness of each other. A young person who is more fully aware of his or her total sexuality is then more capable of channeling and recycling their forceful biological drives into productive psychological maturing.

Leaving home. In one sense, the adolescent is always in the process of leaving home. Adolescence is the period when a person may feel the need to leave his 'child house' -- the life-style of his first dozen years. He knows he can no longer remain a child, and he knows he needs to soon become an adult. So he sets out for his 'adult house' which is bigger, unfamiliar, and unfurnished -- quite different from his 'child's house'. The journey between these two houses is called "adolescence". It takes time and is often uneasy, unsure and uncomfortable.

On some days the adolescent may courageously set out for his new house deciding to be quite mature. But this maturity is hard to maintain, so he relapses into his former childish ways. He vacillates between adult be-

havior and a child's behavior. He hears parents or other authority figures say on one day, "You're not old enough yet for that." The next day he may hear, "Stop acting like a little kid." In addition to this kind of conflict the adolescent may often feel the ambivalence of both wanting to act "grown-up" (in the adult house), and at the same time "cry like a baby" (in the child house). No wonder an adolescent may feel all 'mixed up' and regard the world as 'crazy'.

Any change of houses requires moving some possessions and leaving others behind (and perhaps obtaining new possessions along the way or upon arrival). The adolescent must decide what childhood behavior, values, and beliefs to leave behind and which new ones to acquire. The adolescent who has been endowed with good attitudes from home and who has a positive self-concept will probably be more self-reliant and make the journey with relative ease. If all goes well, he will see his emancipation from home as both a freedom _from_ something (childhood) and a freedom _to_ something (adulthood). If his parental home was secure and harmonious, he will try to replicate these features in his new home, while at the same time keeping the warm relationship with his parents which he has always enjoyed.

The new breed of adolescents. Every new generation of young people seems to cause comment (both neg-

ative and positive) about their unique characteristics.
Critics of present American adolescents are quick to give reasons why today's youth are so "different". Catching the blame are lax parents, television with its violence, permissive teachers, the automobile, drive-in theaters, easy access to liquor and drugs, large allowances, and professionals from Dr. Freud to Dr. Spock.

On the other hand, defenders of much that young people are doing include notable adults like the anthropoligist Margaret Mead, the very same aforementioned Dr. Spock, and countless other adults and, of course, adolescents themselves. They justify the current "differences" of today's youth from former generations by pointing out: a former generation of adolescents were not all perfect either; this is the first generation where instant communication is possible worldwide (e.g. famous speakers, assassinations, and moon walks are all brought into living rooms instantly by television); certain adult values and tactics are immoral or at best manipulative; juvenile deliquents are not as bad as adult deliquents; adolescents don't start international wars or national depressions, inflations, and unemployment.

One could go on for hours arguing the pros and cons of today's youth and how they got that way. Instead, and by way of summary, it might be more appropriate to

simply look at some characteristics of the new species of the American adolescent as compiled by one developmental psychologist, Elizabeth Hurlock (1966).

1. Peer conformity: following the herd, "Belonging".

2. Preoccupation with status symbols: unique clothes, hair lengths, cars, good times.

3. Irresponsibility: "Let George do it."

4. Anti-work attitude: many adolescents have been "waited on hand and foot" from childhood.

5. Anti-intellectualism: a diploma or degree is just a ticket to an easier job; cheating in school is a symptom.

6. New values: honesty, simplicity, love; "Establishment" values like manners, cleanliness, and virginity can be dupped.

7. Disrespect for older generations: equality is necessary; youths regard their values as more realistic and in tune with the times.

8. Criticism and reform: debunking those in authority; "Our generation will change things."

9. Disregard for rules and laws: this is somewhat true of all generations, but statistics do indicate a rising percapita juvenile delinquency rate.

10. Unrealistic levels of aspiration: adolescence has always been a time for dreaming.

Lest the youthful reader becomes 'turned off' by

the above appraisals of today's adolescents, Hurlock is
quick to point out that these ten points do not apply to
all adolescents across the board, and that parents,
teachers, and our culture can often share the blame (or
success) for these characteristics. This writer person-
ally feels that some of the above characteristics (e.g.
Nos. 3, 4, 5) are a bit too harsh. But then he has no
recent survey at hand to back up his opinions -- just an
innate belief that most adolescents by nature are pretty
good people and will become pretty good adults.

Adulthood

Many of the emotional traumas of adolescence give
way in early adulthood to decision-making which can also
entail conflicts. For example, decisions and choices must
be made about one's vocation, marriage partner, family
size, location and type of residence, changing jobs, etc.
Nevertheless, older people frequently look back on their
early adult years as their happiest period in life. A
former study by Landis (1942) showed that over twice as
many people in an Iowa group chose early adulthood over
childhood and youth as their happiest years. However,
when unmarried persons were surveyed, two thirds of them
chose childhood as being most happy. A natural corollary
of this study leads one to conclude that marriage makes a

difference in one's happiness.

Marriage

A strange contradiction to the above statement is that marriage can also make people unhappy. Estimates run anywhere that from 50 to 80 percent of U.S. marriages are unhappy, and about a third of all marriages are dissolved. A discussion of marriage probably should not begin on such a sour note. Therefore, on the positive side, research has shown that good social adjustments made before marriage by the two partners predicts martial success, especially if they had a happy childhood.

Studies demonstrate that the best predictor of happy marriages lies in one's childhood; i.e. if the parents were happily married, where there was attachment to the parents (and also lack of conflict with parents), and if the opposite-sexed parent was viewed favorably (Burgess and Wallin, 1953). Children who have grown up in happy homes have good marriage models in their parents and have thus gained confidence that marriage can be a success for them also. Other research has generally shown that unhappy childhoods seem to breed unhappy marriages.

Happy marriages seem to be more assured if the couple is not married too young. Bischof (1969) reports that all studies indicate unhappiness in marriage is much more common if the marriage occurs before the age of

twenty. Conversely, there is very little dissatisfaction if the individual marries after the age of thirty. Other factors which contribute to happy marriages are the similarity of educational and socioeconomic background for each partner, and a democratic approach to decision-making and sharing responsibilities (Blood and Wolfe, 1968).

Today's nuclear family. Marriages of today are resulting in families which are vastly different than the extended families of a couple generations ago. The extended family consisted of grandparents to grandchildren living together with other relatives and perhaps even household or farm workers. Extended families have given way to today's nuclear family composed of only the husband and wife and their small number of children. The extended family has been annihilated by mobility, with one-fourth of our population moving every year (Barbeau, 1971). "Home" is literally where you make it, and many children these days feel rootless, unsure of where to call home. Many families are being stripped of their external societal supports like the stability which can be found in a home town community. Perhaps the family is not causing the so-called breakdown of society as much as society is causing a breakdown within the family. Today's communes of "families" may be an effort to restore something stable which has been lost.

Children in today's family can be a financial burden, whereas years ago they were an economic asset because they could contribute to the welfare of the family. Work is no longer the unifying factor it was when children and parents worked side-by-side. Frequently the father commutes a long distance to his job. Neither his children nor wife are quite sure what happens to him all day long. Despite his being away, the husband can still be an influential force in family stability, and particularly in his relationship with his wife.

Generally the husband's _influence_ will be felt in marriage in varying ways. If he is stable, he can greatly help his wife through various marital adjustments. His selection of friends may be more likely to become their mutual friends. But his influence is never more important than when he can provide an atmosphere for _equality_ in the home. Times are past, at least in our country, when the husband is the absolute lord and master of the household. The wise husband today is one who will accept the tenet sponsored by womens' liberation movements which holds for equality in decision-making and shared responsibilities in the home (e.g. both can clean the house and change diapers, etc.). Studies assure that such equalities between partners give better assurance of marital happiness if the man's masculinity is not threatened by such shared res-

ponsibilities.

Love

In the above discussion of marriage the word "love" was not mentioned. In fact, very few research studies in psychology have ventured into a direct appraisal of human love. Therefore, formal findings cannot support (nor disprove) what is now to be said.

Love, like intelligence, self-actualization, and some other human qualities, has many facets. Love is no single thing. It is more than sex, more than romance, more than kindness, and even more than friendship. But love can include all these -- and much more.

The philosophical writings of St. Thomas Aquinas indicate four important qualities of human love showing how a person loves with his total being.

1. Knowledge: One can only "love" in some vague way someone he does not know well. The more one knows another, the more there is to love. A practical application of this is to suggest that prior to marriage people should become very good friends who seek and share knowledge of each other's thoughts, feelings, and values.

2. Will: Love is more than an act of the intellect. An act of the will is also made -- a committment. One may "fall in love", but at some point a decision is made to commit one's self to another in some special way.

3. Emotion: Any close friendship or loving relation-
ship is bound to contain emotions or feelings. Persons
are not computers with no emotionality. Some people may
try to hide their feelings, while others may put on a
facade of phony emotions. But love calls for authentic
feelings freely expressed.

4. Body: Since love involves the whole person, it
also involves physical responses. Some people begin love
in physical ways through attractions and arousals, and
love grows from there. However, a tragic disillusionment
often comes early in a marriage which is based only on
physical likes and compatability without one or more of
the above qualities. Our physical bodies provide the
avenues which lead in and out of our real self. The per-
son who loves well will neither hide his body in Victorian
or Puritanical prudery, nor will he exploit his body (or
another's) as a mere plaything after the fashion of the
extremes in the "Playboy philosophy". Persons are not
things, as was expressed by the famous actress Marilyn
Monroe sometime before taking her own life when she
claimed she was tired of being a "sex symbol" because a
symbol is a thing.

The above four qualities are just a beginning of a
long list of elements which can be included in any des-
cription of love. Love is a union of two persons (in

existential terms, "at-oneness"). A person in love will respect (have reverence for) the other. Honesty (openness) is important and demanded in a loving relationship. Sorrow (even suffering) can be expected to temper love. One should not be surprised to hear that control of one's self is the first law of love (Fromm, 1956). Giving (and also the ability or capacity to receive) should be the aim of working at love and just not letting love "happen". A wise man, who's name is probably lost in history, emphasized the importance of "giving" by these words, "The secret of life is living; the secret of living is loving; and the secret of loving is giving!"

How does one give in a loving relationship, be it with a friend or marriage partner? (An ideal situation is, of course, for a marriage partner to be one's best friend.) Giving is working; and sometimes a married couple will say, "Our marriage simply isn't working." Perhaps the marriage would again work if they would once again give -- time, energy, patience, understanding, tolerance, and other forms of giving such as giving in, forgiving, but not giving up until all these have been exhausted. To bring home the point that love requires hard work, someone once compared love to the word "disease" -- "dis" meaning "no", and "ease" meaning "rest". The reader can probably come up with a list of 100 different ways to

give, and that means 100 different ways of saying, "I love you". Saying the words, "I love you" is one way, and between a male and female, sex might be a second way. That leaves 98 other ways to demonstrate one's love for another.

<u>Uncertainties of love</u>. Although the preceding paragraphs may appear to have a lot of "pat answers", there always remains in any love situation the unknown -- the uncertainties. Young people sometimes ask, "How can I know if I'm in love?" A rather simple answer, yet probably an accurate gage is, "When you no longer have to ask that question!" Others answers to that question can take the form of a self-inventory: Can I be myself with her (him)? Do I accept her as she is? (People rarely, if ever, change another person whom they love -- especially after marriage. The person <u>can</u> change, but only if she or he wants to.) Can I grow in this relationship? Can the other person grow and become better because of me? Do we agree on important things? These considerations may resemble a response from Ann Landers, but even she and her better counterparts often base their replies on fairly solid psychological principles.

Many people have experienced the hurt that accompanies "breaking up". The investment one makes in a love can also have its risks. Once a college senior described "love" to this writer as, "A kick in the teeth." For him

this was an accurate definition because he loved and
trusted a girl who suddenly let him down. He took the
risk of opening himself to this girl. He was vulnerable,
and he got hurt. It would be a personal misfortune, how-
ever, if he decided never to take that risk again with
another person. If he would put up a wall of defense
against being hurt again, it is quite possible that no one
could ever break down that wall to get close to him. He
could become embittered, or at best, live a loveless life
for the rest of his years. The other side of this coin is
the "rebound syndrome" where the hurt person rushes head-
long into another relationship in an effort to surpress
the hurt. Such a hasty maneuver often does not provide
adequate time for a new healthy relationship to grow and
mellow properly.

Another uncertainty of love is expressed in the
question, "Can I love more than one person at a time?"
Ultimately each person will have to answer that question
for himself or herself. The likelihood for an affirmative
answer seems quite probable when one includes parents as
persons who are loved. Within marriage, however, this
same question is likewise asked. A married woman who pro-
mised a faithful love to her husband on their wedding day
now finds herself attracted to another man. She feels
confused and guilt-ridden. She might possibly try to re-

concile her dilemma by: first, accepting realistically the
fact that such a situation is possible; but secondly, that
there are degrees of love and there are degrees of com-
mittment; and thirdly, realizing that not every love needs
to result in romantic behavior. Problems such as this
often require professional guidance, not necessarily found
in the next door neighbor, but rather in a trained psycho-
logist, clergyman, or other marriage counselor.

Finally, an unknown quanity (in married love
especially), is whether the love will grow or diminish.
At the time of marriage, two people often think they know
each other completely -- their moods, likes and dislikes,
weaknesses, and so forth. However, shortly after living
together, some small (or large) surprising characteristics
may appear in the other person. One should not be sur-
prised at this because it can be recalled that an indivi-
dual does not ever know himself perfectly or fully and
does not know exactly what his behavior will be in every
given circumstance. If one does not completely know one's
self, it is fair to assume that some surprises are always
possible from the other person in a love relationship.
Thus the mystery (mystique) of love is assured -- for
better or worse.

At any rate, if all goes well in a marriage (and
it often does not), it can be hesitantly presumed that a

couple should be happier together on their twenty-fifth anniversary than they were on their wedding day. Now they have had twenty-five years to know each other more completely, to discover ways of giving to each other, and to reassure the other of their love. This picture may seem idealistic, and perhaps it is, but for many couples it has become realistic because of one very important element of love still to be mentioned -- communication.

Communication. All the concepts expressed in the last few pages are vital components of the large concept of two people communicating. Communication, as previously mentioned, is more than saying words. Listening is often more essential than talking, and listening involves hearing with more than one's ears. A sigh, a touch, a tear, a frown, a glance, an expression in the other's eyes, or a moment of silence can often reveal more than words alone what is actually happening inside another person. An example of mere talking, without picking up the other's non-verbal cues may help. A man and a woman in an argument may be "speaking" on two entirely different levels. His may be the level of logic which comes out in well chosen precise words. The woman hears the words, but she also "hears" something else -- his manipulations, the ignoring of her emotions, a stupid misunderstanding of what she really said, or any number of other possible

reactions. She then responds -- perhaps on a feeling level, but she tries to put her feelings into words. He again hears only her words, fails to pick up her other expressions, and immediately questions and attacks the apparent lack of logic and pertinence of her words. He fires back his reply, which she in turn somehow converts into feelings. And so it continues -- two people talking words (or shouting, spouting, and pouting), and neither one is really on the other's wave length. They are on two different levels, not actually listening to each other, and therefore communication is impossible. Communication between two people (or even between two groups or two nations) is often more an art than a mere assemblage of words. The art of communication can be learned (often painfully, and sometimes never) only if a person takes time and uses insight to explore what the other person is really saying and also what he himself could possibly be interpreting wrongly.

The Single Person

Much of what has been said above about love and communication is also applicable to the unmarried person. The single person is not necessarily unloved nor certainly is not removed from interpersonal communication. The single state in life can be brought about by choice, by divorce, by never being able to marry, or by being

widowed. About eight percent of adults have never married and this includes more men than women. But the figure of eight percent is quite meaningless unless one knows the proportions of rich and poor, and the different races (Hurlock, 1959).

Being single need not hamper someone from being a self-actualizing person. Perhaps the worst curse to befall someone single is excessive self-pity. Feeling sorry for one's self (and it can happen in marriage too) can thwart self-actualization and throttle any possible remaining joy of living.

The single life is not necessarily a joyless life. Some bachelors (men and women) have chosen to remain single because of a career or the simple desire to exercise more freedom. Jobs, friends, travel, religion, the arts, hobbies, and close family members provide much fulfillment for the unmarried. Not too uncommon is the person truly dedicated to some humane calling or profession where he or she decided that marriage would impede a life's work of service. Such single persons may be looked upon by married people with some suspicion, but on the other hand, they may be the envy of many unhappily married persons (Bischof, 1969).

Adult Values

The preceding chapter stated that individuals

begin forming their value system at an early age when they are influenced by parents and other "attractive" persons. Writings by Jersild (1963) confirm that schools and colleges have a tendency to encourage uniformity more than individuality. He claims (and many agree) that seniors are more alike than freshman, and graduate students are sheep! Ten years after graduation there is little difference between the values of college graduates and others, except that the graduate may be more "human" and accepting of human foibles. There is little evidence to show any great shifts or swings in adult values as they go through life. It might be a strong indictment against parents and society to say they are breeding carbon copies and are rewarding conformity and parroting. Many parental and societal values are good for us, but maybe some values are passed on which are somewhat selfish in origin, aimed at preserving a particular race, religion, social structure, or aimed at perpetuating some personal or group prejudice.

How does the adult change his values? He usually does not. But when he does, it is through introspection -- looking inside himself to decide if he really believes this or that, or if he is simply conforming. To aid this introspection one must rely upon knowledge, but more importantly upon intellectual competence (Friedenberg, 1959).

The values which a person decides to retain and nourish are those that emerge from the introspective question, "Which values would I not want to live without?"

Middle Ages

Much of what has been said in this section on adulthood applies to early adulthood. Some of it can also be applied to middle and old age. But both these later age periods contain a few characteristics which no longer fit the young adult. Middle age is that time in life (about 35-60 years of age) when a person has already committed himself to some occupation and to a way of life. The transition from young adulthood into middle age has been gradual, and many earlier motivations, values, and beliefs are still maintained.

With the awareness of a longer life expectancy than in former years, it is not uncommon recently to see a middle aged man (and his whole family along with him) make a dramatic change in occupation, geographic location, or life-style. For example, a successful car salesman may give up a good business to become a teacher -- something he always wanted to do but never did. He has saved enough money for his children's education, has a house and sufficient insurance, and now wants to get out of the "senseless rat race" to "do his thing". Altruistic ideals may be his motivation, or he may just be bored with his usual

humdrum life and wants a new mountain to climb before he becomes too old.

A woman too, especially in her 40's and early 50's may go through a critical period. Her children are nearly grown up, her physical appearance is aging, and she may place more psychological emphasis on her menopause than is merited physically. The early 40's (approximately 41 to 45) are the most vulnerable years for divorce (along with the first few years of marriage), perhaps because at this age the children are older, and finances may be more available for a costly settlement than they were prior to this time. Even if it is her husband who initiates the divorce, she nevertheless may find herself in a new life-style.

More common characteristics of the middle years, however, are the developmental tasks as presented by Havighurst (1953). "Responsibility" seems to be a key word for the middle aged persons. They are in the process of assuming civic, economic, and social responsibilities. They are also responsible to their adolescent children and to their own aging parents. Since their lives are now more settled, they can relate more personally with their spouse and can develop some adult leisure-time activities while adjusting to the physiological changes which may accompany middle age.

The Aging Adult

A person beyond the age of sixty still has many active years which can be successful both physically and psychologically depending on what has happened in the past. Older men and women have continually made outstanding contributions to the world as well as to their local communities and families. Even though our population is becoming younger, with one-half under the age of twenty-five, people are also living longer due to better care. The U.S. Census Bureau figures show that the number of people over the age of sixty-five has more than doubled in the last half-century.

The senior citizen may often be wrongly regarded as "retired from life" and unable to contribute. This kind of self-fulfilling prophecy can create an atmosphere of neglect, or at least disregard, for the aged. No more than one can lump all teen-agers into a common mold can one likewise regard the aged with some stereotyped prejudice. Each person is an individual, and people are quick to be reminded of that in conversation with older persons. Many of them remain very alert, enjoying a day by day contentment, and want to be included in the activities of younger persons.

The matter of "second childhood" should be mentioned. While certain older people may regress from time

to time, it is unfair to refer to every older person's
frequent reminiscences as being their second childhood.
It is quite natural for anyone's thought to go where there
is comfort and a sense of accomplishment. That is why
younger people often plan ahead and talk about the future.
The older person realizes there is not a great deal of
future remaining, and what future there is may be punctu-
ated with loneliness, social rejection, illness, and
ultimately culminate in death. Instead of dwelling on
such future thoughts, it is quite evident why the older
person chooses to talk about the past where there are
happy memories and personal joys. The underderstanding
listeners, be they friends or grandchildren, will there-
fore not mind hearing a story being re-told for the
twentieth time.

Just as the key word for the middle aged was "re-
sponsibility", the key word for the later maturing person
is "adjustment". Havighurst (1953) writes that the
elderly person must adjust to retirement, reduced income,
decreasing physical health and strength, and to the death
of one's spouse. The elderly person will perhaps also try
to adjust his attitude toward his own forthcoming death, a
fact which many younger persons may avoid. Our efforts to
remain youthful have almost made "death" an obscene word.
Yet death is the surest fact of life, and to avoid ever

considering it is quite unrealistic for any of us.

The older person need not merely adjust to negative things; he is still in the process of establishing interpersonal relations -- perhaps with newly found friends in his own age group. If his health permits, he will continue to meet his social and civic obligations, and he can take comfort in many situations wherever others assure him that he is needed, wanted, and respected.

The Three Schools

The closing remarks of the preceding chapter (Chapter IV) gave an overview of how each major school of psychology regards developmental psychology. What was said there also applies here. All that need be added are some particular applications of each school's thinking to the material presented in this chapter; namely, the adjustments connected with adolescence and adulthood.

Behaviorism. An individual develops throughout his life according to the ways he responds to various stimuli. Many responses learned in childhood carry over into adolescence and throughout adulthood. For example, a fear of snakes or of lightning learned in childhood may persist throughout life unless that fear is extinguished somewhere along the line. Satisfying responses, like making money, making love, or even making trouble, will

also tend to be repeated in every age level according to Thorndike's law of effect. Satisfactorally reaching such goals can form a pattern of living for an individual, and thus determine much of his behavior for life.

Physical and psychological measurement during adolescence is of special interest to behaviorists because young people's glands are actively accounting for growth variables which are easily subject to observation and measurement. The measuring of adolescents and adults by psychological tests (especially intelligence and special ability tests) constitutes a large share of behavioristic work. Tests for adolescents, of course, are mostly given in schools by school psychologists, and tests for employment purposes are given by agencies and industrial psychologists.

Learning theories of behaviorists have been incorporated into the American school system where adolescents complete their formal education. One could speculate whether there is any connection between what happens in our schools and the "new breed" of adolescents; namely, are the youngsters influenced by, or reacting against, this part of the "establishment".

Finally, in the area of marriage, an example can be mentioned of the work done in behavioristic therapy. Recalling the technique of systematic desensitization

(Chapter I), a wife suffering from frigidity can be desensitized to again have normal relations; while a husband who may have been thoughtless or even unfaithful can be conditioned (under certain circumstance) to have better husband behavior. The lasting quality of such therapy is continuously being researched and is not yet universally accepted.

Psychoanalytic school. Adolescence for the Freudian is a period which has been largely determined by past childhood experiences and relationships -- especially with parents. Moreover, the unconscious motivations to reduce tension are high because of now interpersonal relationships (at school, on dates, with adults, and so forth). One outstanding example of the adolescent's need to reduce tension is in the matter of sex. During puberty, and afterwards, the sex drive is very high compared with the period of latency through which the youth has just passed. Sexual peaks (common to the genital period) for males reach a high degree in their late teens and seek a physical outlet. Girls, on the other hand, often feel more need for attention and other forms of physical affection (e.g. being kissed and held or just being treated kindly) than feeling the urge for sexual relations, which boys of this age find so strong. Repressed sexual desires and feelings of guilt are therefore not uncommon during adolescence. Adult

satisfaction of the sex instinct is often achieved, according to Freud, through mature love and productive work in society.

Driven by both biological urges and motivational impulses (Freud), the adolescent seeks identity (Erikson) and the security of being accepted into an adult world. His social and interpersonal relations (Sullivan) are not always easy to attain because of a diffused identity ("Just really, who am I?") Feelings of inferiority (Adler) and other basic anxieties (Horney) provide motivation for the adolescent to resolve these feelings and grow into a "normal" personality. If such anxieties are not resolved, neurotic behavior could result and last throughout adulthood.

New roles are learned (e.g. masculinity, femininity; husband, wife; father, mother) as adulthood is reached. Again, in adulthood, whether young, middle aged, or old, new interpersonal relations are being formed which alter one's own personality to some degree. Adjustments throughout adulthood are not always easy, and sometimes psychoanalysis can help a person resolve a marriage conflict, an intrafamily tension, or the fears connected with growing older, social isolation, and death.

The third force. Humanistic-existential psychologists do not confine one's psychological growth to any

certain periods of life like childhood or adolescence. A person is, of course, influenced by his early life, but not determined by it. At any period of one's development he can "suddenly come alive" or "catch fire" in the discovery of self. Psychological growth, as Rogers, Maslow, and others conceive it, is ideally going on during all phases of one's development from childhood through old age. But this ideal of continual growth is not always realized. Circumstances such as lack of proper insights, unmet needs, confused goals, and inadequate perceptions can slow down a person's growth and his process of "becoming". Once these impeding circumstances are removed or resolved (sometimes through counseling) the person can experience the inner (and outer) freedom necessary to move in more self-actualizing ways. The process of self-actualizing, even if it has been impeded in early adulthood, can become active as an older adult. In fact, Maslow believed that self-actualizing persons are usually older people in age as well as in maturity.

Peak experiences can trigger a burst of self-actualizing behavior. These experiences may be able to convert a rather routine and mundane style of life into a life which has exciting moments of bliss, creativity, love, and other related human behaviors. A peak experience is not limited to any specific age during one's development.

Such a moment can happen to a young married couple holding their newly born son or daughter for the first time; it can happen to a single person who is a volunteer social worker receiving a smile of gratitude from someone just helped; it may occur at a 'recognition dinner' to a person retiring from a life-time job; or an elderly person in a rest home may have a peak experience when visited by a dear friend.

The third force school addresses itself to many concepts mentioned in this chapter: to sexuality (as distinguished from sex), to communication (between individuals or in groups), to needs and values of persons at any age level, to perceptions of the aged, to love, and to death. In the matter of marriage, third force psychologists are helping couples experience healthy and fulfilling relationships with each other and with their children. Conjoint (husband and wife) and family (including children) counseling is done to improve marriages and family relations. Perhaps the day will soon come when many more couples and families will not wait until a crisis hits their lives before coming to a marriage counselor, but may come in for a periodic marriage checkup much as they go annually to a doctor or dentist for a physical checkup. Marriage counseling need not be confined to problems, but, similar to individual counseling, can be used to help healthy marriages become even more healthy.

BIBLIOGRAPHY

Barbeau, C. _The future of the family_. New York: Bruce-Macmillan, 1971.

Bhojraj, S. Adventures of the adolescents. _Journal of Correctional Work_, 1961, 8, 32-36.

Bischof, L.J. _Adult psychology_. New York: Harper and Row, 1969.

Blood, R.O. and Wolfe, D.M. Husbands and wives. In Bell, R. (ed.). _Studies in marriage and the family_. New York: Crowell, 1961.

Burgess, E.W. and Wallin, P. _Engagement and marriage_. Philadelphia: Lippincott, 1953.

Erikson, E.H. _Childhood and society_ (2nd ed.). New York: Norton, 1963.

Erikson, E.H. _Identity youth and crisis_. New York: Norton, 1968.

Friedenberg, E.Z. _The vanishing adolescent_. Boston: Beacon Press, 1959.

Fromm, E. _The art of loving_. New York: Bantam Books, 1956.

Havighurst, R.J. _Human development and education_. New York: Longmans, Green, 1953.

Horrocks, J.E. _The psychology of adolescence_, (3rd ed.) New York: Houghton Mifflin, 1969.

Hurlock, E.B. _Developmental psychology_. (2rd ed.) New York: McGraw-Hill, 1959.

Hurlock, E.B. _Adolescent development_. New York: McGraw-Hill, 1967.

Jersild, A.T. _Psychology of adolescence_. New York: Macmillan, 1963.

Landis, J.T. What is the happiest period of life? School and Society, 1942, 55, 643-645.

Murray, H.A., et. al. Explorations in personality. New York: Oxford University Press, 1938.

Stone, L.J. and Church, J. Childhood and adolescence: A psychology of the growing person. (2nd ed.) New York: Random House, 1968.

Tanner, J.M. Physical growth. In Mussen, P.H. (Ed.), Charmichael's Manual of child psychology (3rd ed.). Vol. I. New York: Wiley, 1970.

CHAPTER VI

PSYCHOLOGICAL TESTING

Psychology is a science. True to its professional status the science of psychology uses several empirical techniques. (Empirical: Relying upon or derived from observation or experiment.) To obtain empirical results it is necessary to do measuring -- and measuring in turn usually requires the use of statistics. In this chapter we will briefly introduce some concepts of measurement, examine basic statistics, and describe some types of psychological tests.

Measurement

The famous German philosopher, Immanuel Kant doubted there could ever be a science of psychology because its raw data could not be empirically observed and measured. It is true that much human behavior cannot easily be measured; consider our feelings, habits, and impulses. However, a lot of our behavior even our mental processes, can be easily observed and measured, and techniques are continuously being improved to study human data. In situations where human beings cannot be easily

or ethically measured, psychologists resort to the use of laboratory animals such as rats and monkeys. Strains of rats and monkeys can be control breeded within a short period of time compared to humans. Besides very few human parents would consent to such breeding manipulations. Moreover lab animals are cheap and can be easily used in experiments such as those which measure effects of hunger and thirst to say nothing of sexual deprivation studies. One can easily imagine a few ethical implications involved if human subjects were used in such experiments.

Animal behavior, however, often corresponds in similar ways to human behavior, e.g. fears, being conditioned, dependency on others. Whether we measure objects, animals, or humans the definition of measurement is rather simple: <u>Measurement consists of rules for assigning numbers to objects in such a way as to represent quantities of attributes</u> (Nunnally, 1970). Measurement, therefore, is concerned with numbers -- it is quantitative. Quantitative about what? Attributes. This may sound like nit-picking, but one doesn't measure a college freshman. Rather his attributes are measured, e.g. his height, weight, IQ, grade point average, and anxiety level. Assigning numbers to a person's various attributes by measurement provides definite advantages. If the rules of measurement are followed the results will be:

1. Objective: another person can observe the results and then know exactly what the measurement implies. He can then repeat the procedure in the same manner if he wishes.

2. Quantified: the results, expressed numerically, can then be used for further analysis.

3. Economical: a) time is saved by following rules of measurement because much of the guesswork is the controlled; b) money is also saved if certain standardized tests are used rather than designing new forms of measurement which require expensive testing for validation.

4. Able to be communicated: a certain "scientific language" facilitates exchange between psychologists dealing in technical research.

Measurement, therefore, provides certain standard procedures which are necessary for most psychological research. Measurement also makes predictions more accurate and makes facts easy to handle. But the psychologist is not only interested in quantification. He is also concerned about the quality of what of who is being measured. When attributes of human subjects are under observation and measurement, the psychologist does not lose sight of the human element -- of human feelings and the social implications. Dealing with the human being in a scientific way is never the same as dealing with mere chemical ele-

ments or properties of physics. With this caution in mind we now turn to the various scales used in measurement.

Scales and Scores. There are four basic measuring scales:

1. Nominal scales: are used when we merely number persons or things as with your student identification number. Let's consider two forgotten friends of bygone years, Jack and Jill. Using a nominal scale we could call Jack, Boy #1 and Jill, Girl #1.

2. Ordinal scales: are used simply to rank individuals in order from lowest to highest depending on what we are measuring, such as judges ranking beauty contestants. Jill might be considered prettier, and on an ordinal scale measuring agility or balancing Jack might rank quite low. (Industrial psychologists are concerned about people like Jack who broke his crown. Such people could be considered accident prone for various unconscious reasons.)

3. Interval scales: are used to show how far apart things or human attributes are. Most psychological test scores are on an interval scale. If a sophisticated test instrument could be constructed to measure a person's motivation to climb hills, the test results might show Jack's score of 60 and Jill's score of 45 to be enlightening. There is no absolute zero when interval scores are used. Even if a fourth grade boy gets zero on a spelling

test one cannot presume that he is unable to spell some words, so it cannot be said that he knew nothing (zero) about spelling. A good example of an interval score is a thermometer. The intervals between each number on a thermometer are equal, but zero temperature does not mean it is always relative to all the degrees above zero and below zero.

4. Ratio scales: are the highest level of measurement because all mathematical operations can be used. Jack and Jill can add, subtract, multiply, and divide the amounts of water they can carry on a good day when they don't mess around on the hill. A ratio scale also has an absolute zero so that after the fall and tumbling of our friends, their pail contained zero amount of water.

In psychological testing scores are assigned to people for their test performance and they can then be ranked in order on a scale, usually an ordinal or interval scale. But one needs to have some knowledge of what a score and a rank really mean when compared with the total population. If Jack and Jill decide to attend college, they will take some college entrance exam. If Jack scores 42 and Jill scores 53 one still does not know much about their possible success in doing college work. Would you advise them to go to college or to keep fetching water from their hill? As their counselor, or advisor, or

parent you would want to know what 42 and 53 <u>really</u> mean.
If you knew that 50 was the average score (as it always is
on a percentile scale) then you would know that 42% of
college applicants scored lower than Jack and that 53%
scored lower than Jill. You would also know that Jack is
a little below and Jill is a little above the average
high school seniors who took this particular test. Some
people might look only at this information and suggest
that Jill go to college and that Jack stay at home and
find another partner to help him carry water. However if
you know more about test interpretation you may conclude
that both Jack and Jill are pretty close to average and
if they choose the right college they might have an aver-
age chance of success, (and might even have enough spare
time to engage in an extra curricular activity such as a
water boy/girl twosome for the football team.)

Centile scores (often called percentile scores)
are used as a handy guideline to observe at a glance a
person's position compared to the group. Three centile
scores are of particular significance; 25th, 50th, and
75th, and they are frequently used in educational aptitude
and achievement tests. These are called Q_1, Q_2, and Q_3
(Q stands for quartile, one fourth of the scores). Jack's
score of 42 in a normal distribution places him in the
2nd quartile, while Jill's score of 53 which is over the

50th centile or median, places her in the 3rd quartile.

In order to make proper interpretations of tests we need to know a lot more than what is said above. Some knowledge of basic statistics is necessary.

Statistics

Statistical techniques are used generally for two purposes: (1) to describe data which has been collected (descriptive statistics), and (2) to make inferences about a group by examining a sample drawn from a larger population (inferential statistics). For a better understanding of what this chapter treats later on we will consider here only a brief outline of descriptive statistics. Those who are interested in more sophisticated levels of various kinds of statistics may later wish to enroll in such courses.

As its name implies, descriptive statistics allow us to describe or make a summary statement about a group of measurements. One can say, for example, that the average height of his favorite professional basketball team is 6'4", or that someone scored above the average on a certain psychology test.

Measures of Central Tendency

Let us begin with the scores of eleven college students made on a psychology exam. First the raw scores

are sorted out in order (rank) from highest to lowest.

Student	Psychology Exam Score
Kirstine	43
Gregory	41
Elizabeth	40
Chris	40
Peter	40
Mary	38
Tom	37
Jack	35
Jill	33
Dick	31
Liz	29
Total (ΣX)	407

One can now say something about these scores in a descriptive way. Teachers and students alike are interested in finding out what the test average is, especially if a curve is used for grading. Actually there are three "averages" used in statistics which measure the central tendency of a group of scores: mean, mode, and median.

1. The mean (M) is simply figured by adding the scores (X) and dividing the total sum of scores (ΣX) by the number of scores (N).

The formula for finding the mean is:

$$M = \frac{\Sigma X}{N}$$

In the example above: $M = \dfrac{407}{11} = M = 37$

Tom's score of 37 is the arithmetical average or the mean.

2. The _mode_ is the score made most frequently by the students. In our example three students made a score of 40 which is the mode.

3. The _median_, the third measure of central tendency, is the middle score which has an equal number of scores above and below it. In our example it is Mary's score of 38.

You may have heard the expression that there are liars, and there are damned liars, and then there are statisticians. It seems that the three measures of central tendency can be used to give us almost any "average" desired, either 37, 38, or 40, but actually the mean, median, and mode are used in very regulated ways and for different purposes in the science of statistics. The only "lies" occur when someone might use the wrong measure of central tendency to describe some particular numerical quanity.

The Normal Curve

The mean, median, and mode can all be the same number if there is a complete distribution of scores on

what is called the normal curve. This curve is symmetrically bell shaped and has been mathematically worked out to cover the distribution for an infinite number of scores determined by "chance" as in dice throwing. The estimated distribution of every person's IQ score on a Wechsler Intelligence test would look like the normal curve in Figure 1, on page 229.

On a normal bell shaped curve all three measures of central tendency are the same. In Figure 1 the mean, mode, and median all are 100 which is considered the normal IQ. Notice that the two ends or tails never quite close, indicating room for extreme low or high scores to fall within the normal curve.

The numbers directly below the IQ scores in Figure 1 are known as standard deviations and they indicate the distance from the mean to tell if the person's score is above or below the mean and how much it is. Thus if Kirstine scores two standard deviations above the mean (+2SD) and if Jill scores one standard deviation below the mean (-1SD) one has a helpful shorthand to know more about their relative standing on a certain test.

The lowest set of numbers under the base line in Figure 1 indicates the percentage of scores expected to fall within each standard deviation on a normal curve. Utilizing all the above information one can predict fairly

precisely within these age groups that differential psychologists can work hand-in-hand with developmental psychologists. Both of these psychologists can thaw out any frozen ignorance or misunderstandings about age groups such as: young people always react quicker than older people; the process of learning stops during the twenties; older people's intellectual capacities slow down so much that they actually regress into a second childhood; or "you can't teach an old dog new tricks." Thanks to differential and developmental studies of age groups many of these kinds of misconceptions can be corrected.

Both cross-sectional and longitudinal studies provide clarifications of age groups, again according to the three psychological areas of intelligence, special abilities, and personality.

Intelligence differences. Cross-sectional studies have turned up evidence that there is no appreciable decline in a person's capacity for general information and vocabulary until about age sixty. However, other mental abilities (e.g. analogies, learning new concepts, etc.) do show a general pattern of decline in effectiveness from early adulthood to old age. This decline is only slight during the middle decades (the 30's, 40's and often 50's) but becomes more marked in a person's later years (Jones and Conrad, 1933). Other cross-sectional tests disclose

accurately that if 10,000 persons are randomly selected
(Random: an equal chance for anyone to be selected from a
wholly representative population.) that 6,826 persons
(34.13% + 34.13%) will fall within +1SD and -1SD and thus
have IQs ranging from 85 to 115 based on a Wechsler test
of intelligence. About 95% of the scores will fall be-
tween plus two and minus two standard deviations.

Measure of Relationship

Many psychological writings, especially those re-
fering to research, will include the term correlation co-
efficient (symbol = r). This term, sometimes just called
correlation, is used to express a relationship between
two traits taken from the same sample. For example, do
people who do well on psychology tests also do well on
English tests? If all or most of them do, it is said that
there is a high correlation or their scores are correlated
positively. If they do much better or much worse on
English tests than in psychology we say there is a low
correlation or their scores are correlated negatively.

Using the group of eleven students mentioned above
as an example, if Kirstine also had the highest score on
an English test, Gregory the second highest and so forth
down the list so that Liz had the lowest English score, it
can be said that the correlation was not only positive,
but perfect, and r would equal +1.00, the highest

correlation possible. If the reverse were true, viz, if
Kirstine had the lowest English score, Gregory second
lowest, all the way to Liz who had the highest English
score, one would say the correlation is perfect again,
but this time is negative and r = -1.00. So correlation
scores can range from -1.00 to +1.00 with zero indicating
no correlation whatsoever; (i.e. as many students scoring
higher on English than psychology and as many scoring
lower.) A moderate correlation like +.50 shows that the
people tend to score about as high in one test trait as
they do in the other, but that there would be many ex-
ceptions to this general trend (Tyler, 1963). An illus-
tration of moderate correlation is that correlations be-
tween the intelligence of children and their parents tend
to range around +.50. From +.50 or +.60 upward to +1.00
indicates that there is a rather high correlation between
the traits which are being compared. A series of studies
of identical twins show that one twin's measurement of
intelligence correlates with the other twin's measurement
between +.87 and +.92, whereas the same study using fra-
ternal twins shows their intelligence measurements cor-
relates between +.52 and +.70 (Nichols, 1965). Both of
these correlations are rather high, but the higher cor-
relations for the identical twins is statistically signi-
ficant or very meaningful especially if a psychologist is

strongly in support of the genetic argument to explain the
level of intelligence. (Remember that identical twins
have the same genetic makeup, having developed from a
single zygote, whereas fraternal twins are dizygotic --
developed from separate fertilized ova.)

Correlations are often used in prediction. For
instance, high scholastic average in high school is a good
predictor of success in college because there is generally
a high correlation between the grade point averages in
high school and college. But when looking at correlations
we must not make the mistake of concluding that one trait
is the cause for the other. Some examples will show the
the fallacy of the "cause and effect" argument. If we
noticed increased student radicalism and also a similar
increase of student enrollment in modern dance classes we
could not conclude that one causes the other even though
their correlation was high. Neither does the increase of
rainfall in Indianapolis affect or cause the simultaneous
birth rate increase in India, or vice versa. Nor was
there necessarily a casual relationship in the high cor-
relation between the increased number of clergymen being
ordained in the 1950's and the reported increase of beer
consumption in this country for that same decade.

Statistics and Computers. A person entering into
the field of psychology must know at least the rudiments

of statistical language to intelligently read texts or to make sense out of research articles in journals of psychology. As the science of psychology relies more and more upon statistics for measuring and interpreting findings, it will undoubtedly also increase the implementation of computers to handle the mass of data being examined. Computers will also make statistical predictions more accurately and quickly than in the past. Predictions in political elections, for example, are becoming more precise because of the marriage between computers and statistics. With less than ten percent of the vote counted on election night computers can often predict the candidate who will win.

Psychology is a fascinating region for exploration by using electronic computers. For example, psychologists researching physiology use computers attached to electrodes implanted in the brain to record nerve activity, calculate the data received about electro-chemical discharges, and immediately show it on the screen of an oscilloscope. We can be sure of more use for computers in several other areas of psychology including the fast and accurate computations of data from mental tests.

The Three Schools

All major approaches to the study of psychology rely upon measurement and statistics. However there are

differences among the three major schools depending on:
a) What behavior is being examined by a particular school,
b) the importance each places on empirical measurement,
and c) the measuring instrument used.

Consider, for example, the third difference, namely the measuring instrument. This is an oversimplification, but the behaviorist might turn toward a measuring apparatus such as the above mentioned oscilloscope or some psychological tests; the psychoanalyst often uses himself as the instrument of measurement, believing his judgment best appraises how the patient is doing; whereas some third force psychologist might well consider the best instrument of measurement to be the subject himself -- his own perceptions, how he feels, and if his goals are being met.

Depending upon their varying points of view, each school will favor different techniques in measurement and statistical methods.

Behaviorists. Psychologists of the first force place more emphasis on empirical measurement than the other two schools. Their research is more punctuated with the use of statistics. Behavioristic leanings toward measurement is understandable from their goals which are to measure observable behavior in terms of muscle movements and glandular secretions. The more they can

measure the more assured they become. Many behaviorists
enjoy the label (and again, be cautioned in the over use
of any labels) of "pure" or experimental psychologist
which implies the scientific model out of which many of
them work. Psychology must be continuously indebted to
the men and women who, in their behaviorist tradition,
supply so much research ranging from the lowest forms of
animal behavior up to man's high faculty of intelligence.

The psychoanalytic school. Freudians have often
been accused of not developing empirical studies to mea-
sure their efforts. Freud himself was a target for such
condemnation from his contemporaries including some of
his close disciples. Even if these accusations are just-
ified, it must be remembered that psychoanalysts typically
do not concentrate on laboratory research because their
main emphasis is on analysis of man's past and his un-
conscious -- difficult subject matter to measure by in-
struments or to statistically design. Several of their
assumptions, e.g. regarding the id, ego, and superego, are
difficult to prove or disprove by objective measurement.
Their goal is therapy more than research. However their
"research" has been of a different sort. They have
pointed out the invaluable evidence of man's unconscious
behavior -- his drives, tensions, wishes, and past influ-
ences which have done so much to enrich clinical psycho-

logy." Historically, psychoanalytically oriented psycho-
logists have presumed upon many hypotheses. (Hypothesis:
a provisional statement or proposition which is tested to
be either confirmed or denied.) It may well be up to
psychologists of today and tomorrow to devise ways to test
and measure psychoanalytical hypotheses which appear un-
supportable to some scientists. In fact, ongoing research
is the cornerstone of any branch of science.

The third force. People of the third force psycho-
logies differ from the older two branches of psychology in
their recent appearance on the scene as a distinct school.
Therefore some lack of empirical evidence may be toler-
ated. But not for long. Psychologists of all persuasions
(including third force psychologist themselves) are
currently beseiging humanistic-existential advocates, and
various others in the third force to back up their policy
statements with objective evidence. Some third force
psychologists are attempting to do just that, especially
by researching areas of perception, attitudes, and edu-
cation. However those psychologists with existential
leanings emphasize the philosophical underpinnings of
their work and, while not disregarding the value of tra-
ditional empirical research, feel that human beings may be
the subject of new and different research forms and styles.
Out-of-the-laboratory studies are already in full progress

by humanistic psychologists who concern themselves with fresh ideas regarding human encounter, cultural factors, human fulfillment, suffering, peace, etc. While all three main schools of psychology aim toward improving the lot of human man, the third force seems often more concerned with the goals and strivings of the "whole man" rather than research and diagnosis of man's part function, past experiences, and responsive behavior. Perhaps we are already witnessing two great traditions of man merging in psychology, namely science and the humanitites, due to the beliefs and contributions of the newer approaches in psychology (Bugental, 1967 and Severin, 1965).

Psychological Tests

The Testing Scene

Every college student in the United States today has probably already taken several psychological tests -- and still may take more in the future. During grade school and high school, tests are given to measure students' intelligence, achievement, or various aptitudes and vocational interests. If a student shows signs of poor emotional adjustment, he may be given a certain personality test or even a battery of psychological tests. (Battery: different tests, usually given as an array or group, used to measure more than one trait of a person.)

Someone entering military service will take one or more psychological tests. Business and industry use testing for placement and promotion of their personnel and for improving working conditions, production, consumer interest (and ultimately profit).

Because ours is a test-minded society, present college students are likely to come into contact with psychological testing later whether it be in their roles as teachers, businessmen, servicemen, or even as parents (which presumably many students do become). A familiarity with testing now therefore becomes a real advantage in understanding tests you will deal with or tests your children will take.

The testing industry itself is really big business because there are thousands of psychological tests on the market. But not every test is necessarily a good test.

A precise definition of a psychological test states that it is an objective and standardized measure of a sample of behavior (Anastasi, 1968). That "sample of behavior" which is measured may be any trait ranging from a variety of physical and mental skills to measuring motivations or a person's attitudes and values. "Objective" and "standardized" are two of four characteristics of a good test.

Characteristics of a Good Test

A good psychological test should have the following four standards and characteristics: 1. Objectivity, 2. Standardization, 3. Validity, 4. Reliability.

Objectivity. Although we are not talking about teacher-made tests, everyone knows that multiple choice, matching, or true and false tests are examples of objective testing. Essay tests or personal interviews are examples of more subjective testing. Both objective and subjective tests are good, and both serve a real function in the classroom and in psychological testing. However, a more accurate scoring can be obtained from an objective test because the examiner cannot "read into" an answer, nor would the "halo effect" enter in. (Halo effect: the tendency to rate a person higher or lower than his actual performance simply because he is known, or prior information about his abilities or weaknesses could color our opinion.)

Objectivity also demands that uniform conditions should exist whenever the same test is given at different times or in different places. For example, the exact amount of time for taking it, and the same directions to be read beforehand should be uniform (objective) so that no matter who administers the test, the same results can be expected. Several psychological tests, however, are

given individually and may not have a single "correct answer". In these instances, for example telling what is seen in an ink blot, the person who administers the test questions is specially trained to interpret answers in an objective way.

Standardization. A psychological test is standardized when its norms are based on a large group of people. The test results of a person taking a well-standardized test must be compared with accuracy to a large sample of people who's scores have already set the norms for that particular test. An individual's scores can then be evaluated and interpreted properly. For example, a ten year old child's IQ score must be based on a comparison with the normative scores already set by a large group of ten year old children of similar backgrounds.

When a psychological test is being constructed, each test item should be standardized by using a sample group to provide a normative frame of reference. For instance, when a test is constructed to discover whether a person has interests and preferences similar to those of a typical policeman, then a group of policeman's interests and preferences must first be established as the norm. This test would not be properly standardized if a group of hippies, or even a group of hard-hat construction workers, were used as the normative sample.

Validity. A very important characteristic of a good psychological test is that it be valid. Validity means that a test measures what it claims to measure. A test of intelligence, for instance, must really measure a person's IQ and not his values or mechanical aptitude or personality or anything else except his intelligence. Administrators whose job it is to select and purchase psychological tests must be cautious about unsupported claims of what a particular test measures. Sometimes even the title used by the test maker can be misleading. Validation of a test takes a long time and involves several distinct procedures of measurement and statistics. Information can be obtained from various approved publications to assure the administrator of the validity of a legitimate psychological test.

Reliability. While validity answers the question, "what does this particular test measure?", reliability answers the question, "how consistent or accurate is this test?" To understand what reliability means, keep in mind the word "consistent". Consistent results should be obtained if a testee would take the same test again at another time, or if he would take different forms of the same test. (Some tests, for example, come in Form A and Form B.) Reliability is also checked by splitting a test in half and comparing (correlating) the results of the odd

numbered questions with the results of the even numbered questions. If a high correlation (e.g. around +.85 or +.90) is shown between the odd and even scores, one can be assured the test is consistent or reliable because substantially the same results are shown.

The above four standards or characteristics of a good test may not seem too important to the reader who has just laboriously tried to make sense out of the preceding four paragraphs. But to test makers, test takers, and to test givers these characteristics spell out all the difference in the world between slip shod guess work and a precise instrument of measurement.

By way of comparison, it is doubtful whether all "psychological tests" found in a daily newspaper or in some popular magazine are objective or standardized or valid or reliable. So the next time you give yourself one of these tests and get a high score be a bit cautious about announcing to the world that you are a genius. On the other hand, if you end up with a low score, you can remember what you just learned about the four characteristics of a good test and you can presume the test lacked one or more of these characteristics. Then you might conveniently rely upon one of your favorite defense mechanisms to ease your embarrassment and stress. (Suggested hints for use: rationalization, projection, suppression.)

Kinds of Tests

Because there are so many types of psychological tests, much confusion can be avoided if they are put into catagories whenever possible. Tests can be catagorized in two ways: a) according to how they are taken and b) according to what they are measuring.

I. We first can distinguish various ways psychological tests may be taken. One distinction is between a group test (taken by many at one time) and an individual test. Individual tests are given by a trained tester to a single person. Despite their obvious advantages (e.g. to the handicapped) they are more costly than group tests.

Another distinction is between speed tests and power tests. A speed test is timed by a clock or stop watch, and a person's score is determined by his performance in the alloted time. A power test is designed to determine how a person does on difficult problems when time is not the main factor. Some tests have both speed and power built into them.

A third distinction of how tests are taken is based on content. A language test (verbal) presents its content in a different way than a nonlanguage test (nonverbal). The nonlanguage test might contain pictures, symbols, or even pantomime instead of printed words or numbers. Nonlanguage tests are extremely useful with

people who are illiterate or who are unfamiliar with the English language.

A final way to distinguish how tests are taken is to note the difference between performance tests and paper and pencil tests. A student is so accustomed to classroom test taking that whenever the word "test" is used he almost automatically thinks of writing down answers to printed questions, the paper-and-pencil way. But many psychological tests are designed to test a person's performance on a given task or skill by using puzzles, blocks, musical tones, or any number of other testing devices.

II. The second major way of catagorizing the kinds of tests is to classify them according to what they measure. Nearly every psychological test can be fit into one of the three fundamental types of test. Each of these three has several subtypes, but for our purposes here they can be simply classified as: (1) intelligence tests, (2) special abilities tests, and (3) personality tests.

Each of these kinds of tests can be taken in the various ways mentioned in number I above. For example, some intelligence tests are for groups, are speed tests, are language tests, and are paper-and-pencil tests. Other intelligence tests may be given to an individual as a power test, and be a nonlanguage and performance type

test. Variations are almost limitless between a) how a
test is given and b) what it measures.

In the next three sections a few examples will be
mentioned of each of the three major classes of tests and
some of their features will be briefly pointed out. Hope-
fully this will familiarize the reader with some of the
leading psychological tests and also prepare you a bit for
the next chapter (Human Differences) which examines some
findings from these tests to explain how people differ
from one another.

Intelligence Tests

Chapter VII attempts to show the various charact-
eristics of intelligence itself. Here only some of the
testing instruments for measuring intelligence will be
mentioned.

The Stanford-Binet Test.

The "oldest living"
mental test of importance is the Stanford-Binet Intelli-
gence Scale. Alfred Binet was given the job by the
French Minister of Public Institutions to find a way to
sort out the normal students from those students who were
dull or those students who were just plain lazy. In 1905
Binet published his first intelligence scale in France,
and in 1916 it crossed the Atlantic where Lewis M. Terman
of Stanford University adapted it for use here. The test,

then named Stanford-Binet, was revised in 1937 and updated
again in 1960.

One feature of the Binet tests is that they are
subtests or scales (to be climbed) which are grouped by
age levels from age two to fourteen. Below are some
sample items to be passed according to various age levels
from the Stanford-Binet. You will notice the heavy stress
on verbal ability to understand the directions, and you
will also note the performance requirements for the
younger children. Necessary materials needed to admin-
ister the Stanford-Binet comes in a kit, and they include
booklets of printed cards, various toys, blocks, a book-
let to record responses, and a test manual for the ex-
aminer.

Age 2. The child is asked to adentify parts of the
        body when they are pointed to on a large paper
        doll. e.g. "Show me the dolly's eyes."

Age 3. The child is shown a bridge made from three
        blocks and is asked to build one like it.

Age 4. Questions are answered such as, "Why do we
        have houses?" "Why do we have books?"

Age 5. The child of five should be able to define two
        of these three words: ball, hat, stove.

Age 6. "Mutilated pictures" are shown with an object
        missing, e.g. a wagon with only three wheels.
        The child must say what is missing in four of
        the five pictures.

Age 10 Various vocabulary words; Reasoning, e.g. why
        children should not be noisy in school; Re-
        peating six digists, e.g. 9, 7, 4, 6, 2 which
        are read at one-second intervals.

Adults: Orientation, e.g. "Which direction would you
          have to face so your right hand would be to-
          ward the north?" Differences between words,
          e.g. between "laziness"; and "idleness";
          arithmetical reasoning. (Terman and Merrill,
          1960).

To show how the intelligence level is determined
for the testee from the Stanford-Binet, an example may be
used of a child whose chronological age is four. The four
year old age level contains all tests which can be passed
by normal four year old children based on standardized
large samples of four year olds. If a four year old child
can pass the necessary items on the four year old level
and if he can also adequately pass the five year old sub-
tests but not the six year old items, it is concluded that
he has the mental age of a five year old. With this in-
formation, his IQ (intelligence quotient) can be calcu-
lated by using this formula:

$$IQ = \frac{M\ A\ (Mental\ Age)}{C\ A\ (Chronological\ Age)} \times 100 \text{ (to remove the decimal)}$$

From our example: $IQ = \frac{5}{4} \times 100 = 125$

Today more sophisticated ways are used to calcu-
late a person's intelligence score than the formula above.
Therefore the term "IQ" must be used with caution. The
more that is learned about the nature of intelligence, the
less one should "fixate" on a specified number or score to
express a person's intelligence or mental ability. The

difference between IQ scores of 90 and 110 may not actually tell us a lot about two different people who were tested. To say that the person with the higher score is about 20% brighter than the person with the 90 score is a very inaccurate way of using IQ scores. Given a different intelligence test on another day, their scores may change considerably. Besides, young people's intelligence usually increases several points as they grow older. For these reasons it is the practice of test administrators to inform the testee how he performed only in rather general terms rather than give out a number. The person with the score of 90 could be told, "Your test results were well within the broad range of averages, but was among the lower scores of those who were in the average range on this test." This kind of statement is about as accurate as most evaluators will make because of the caution necessary in interpreting any mental test.

A final remark can be made about the Stanford-Binet to point out its limitations. (Bare in mind that there is no such thing as a "perfect test".)

The Stanford-Binet does stress verbal ability.

It is somewhat less accurate in measuring adults than children.

It gives an overview of general mentality better than it gives a differentiated analysis of various specific kinds of mental skills.

It was standardized on white children only. There-
fore non-white children often score lower than white
children.

It is given to one person at a time which requires
trained administrators, more time, and greater ex-
pense.

Despite these limitations, the Stanford-Binet has

served the testing world remarkably well for half a cen-

tury as the intelligence test.

The Wechsler Scales. David Wechsler designed and

published in 1949 the Wechsler Intelligence Scale for

Children (WISC). It is widely used today for children

from five to fifteen years old.

Ten years prior to the WISC however, Wechsler had

developed a scale designed specifically to measure the

intelligence of adults. It was re-worked and published

again in 1955 under the title, Wechsler Adult Intelligence

Scale (WAIS). The WAIS, frequently used for students aged

fifteen and older, fills the need for an individual in-

telligence test to measure adults more adequately than the

Stanford-Binet has, according to many psychometrists.

(Psychometrists: a specialist in psychological testing and

measurement.)

The Wechsler scales differ from the Stanford-Binet

scales in two rather significant ways. a) Although

Wechsler's test items are similar to the Stanford-Binet,

he combines items according to the type of subject matter

rather than grouping items by age levels as in the
Stanford-Binet. For instance, one WAIS subtest contains
all the arithmetical reasoning items, while another sub-
test includes all the picture arrangement tasks, and so
forth for eleven different subtests. Each subtest is thus
a specialized area which reveals at a glance how the
testee compares from one subtest skill to another, and
also how he compares with the total population in each
separate test area.

b) A more important distinguishing feature of the
Wechsler tests is that all the various subtests referred
to above fall into two major catagories, verbal and per-
formance. The verbal scale is made up of six subtests:
vocabulary, memory span, general comprehension, general
information, arithmetic reasoning, and the ability to de-
tect similarities between pairs of tens. The performance
scale comprises five subtests to measure a person's
abilities at: constructing designs with blocks, picture
completion, arranging pictures, assembling objects, and
a type of coding test.

The testee's scores (deviation IQs) can be cal-
culated from the whole test, or from either the verbal
scale or the performance scale considered separately. If,
for example, the performance scale alone is used as the
measurement, a more equitable evaluation is possible for

the verbally handicapped person.

Both the WISC and the WAIS are highly regarded by psychometrists. But over the years several psychologists felt the need to have a more precise instrument than the WISC for measuring the abilities of the preschool child. The WISC does measure children as young as five years, but the years of four to six are considered so significant in a child's mental development that another test was designed for this age period. In 1963 the Wechsler Preschool and Primary Scale of Intelligence (WPPSI) was published. The WPPSI is similar in concept and design to the other Wechsler scales, but it has some special features which take into consideration the unique problems of testing children aged 4 to 6½ years.

Both the Stanford-Binet and the Wechsler scales have all four characteristics of a good test and they are especially high in validity and reliability. They are very competitive in schools and wherever mental tests are used. Heated discussions over which of these two tests is superior often end in "split decisions". One's preference for using either the Stanford-Binet or the Wechsler depends upon the purpose for which a test is needed, and is largely a matter of the personal choice of the test giver.

Group Test of Intelligence. The Stanford-Binet
and the Wechsler are both tests to measure the intelligence of an **individual.** Although they are the leading
tests of intelligence they are naturally not used with as
many people as tests which can be administered to large
groups. Group tests have the same purpose as individual
tests -- to measure a person's intelligence, but group
tests have some advantages as well as some limitations.

The main **advantage** of a group test is that it
requires only a single administrator for many test takers,
thus saving time and cost. Furthermore the test giver
need not have all the special training necessary for administration of individual tests. Frequently the results
of group tests can be sent away to be scored by machine
which eliminates the task of correcting tests for the
institution (school, hospital, military) responsible for
the testing program. Another advantage for group tests is
that they can be given for a very specific purpose. For
example, a test designed for admitting students to college
(e.g. the College Entrance Examination Board or the
Scholastic Aptitude Test) would have a different purpose
than a screening test for army recruits (e.g. the Army
General Classification Tests).

Limitations of a group test include the shortcomings of any paper-and-pencil type test to test takers

who are poor readers. It is also possible to cheat on a group test (e.g. it is not uncommon for a military inductee to purposely try to foul up a test in order to be rejected). An individual test on the other hand may permit the administrator to measure the motivations of the testee as well as his "trouble areas". In the case of a child being tested, the individual administrator might be able to suggest remedial work for the child's deficiencies.

Other group tests would include the Lorge-Thorndike Intelligence Tests (for children), the Henmon-Nelson Tests of Mental Ability, and the Otis Quick-scoring Mental Ability Tests (for children and adults). To give the names and descriptions of all the various tests, whether group or individual, on the market would fill a book. In fact, such a book has already been filled and is available in most libraries. It is the <u>Mental Measurements Yearbook</u>, edited by O.K. Buros, and is published every five or six years. Group tests are not limited to the general area of intelligence tests, but are very widespread in testing special abilities and are even used for some personality tests.

Tests of Special Abilities

Let us imagine two attractive coeds who have the same IQ scores, yet their abilities are as different as day and night. One girl may type 140 words a minute, make

her own clothes, and be an artist for the college news-
paper. The other girl may have none of the above abili-
ties, but she plays a twelve string guitar, sings all the
current folk songs, is an excellent gymnast in physical
education class, and is a pom pom girl for athletic
events. Although similar intellectually, these two girls
have different aptitudes and have achieved different
skills. How these two students acquired their different
abilities and arrived at their present unique life styles
could well be studied from the viewpoint of motivation,
learning, and developmental psychology. But how their
various abilities (aptitudes and achievements) are mea-
sured is the concern of psychological testing for special
ability.

The hundreds of different tests of special
abilities are generally catagorized as either: a) aptitude
tests or b) achievement tests, depending on the _purpose_
for which the test was constructed and the _purpose_ for
which it is given.

Aptitude tests are usually given to select persons
for vocational trades or for further scholastic training.
If the test reveals that the testee clearly shows some
distinct aptitude, we often interpret this aptitude as
predicting success for the person in a special area of
work. For example, if a man scores high on a mechanical

aptitude test, one can feel safe in predicting that he
will have more success as a garage mechanic than would a
woman who scored low on the same test, but who scored high
on a clerical ability test. Certainly it is logical to
predict more success for this woman if she would take a
job as a file clerk or secretary in an office rather than
attempt to become an auto mechanic.

A favorite aptitude test of the United State
Employment Agencies is the General Aptitude Test Battery
(GATB), a two-and-one-half-hour battery of nine separate
aptitude tests. After the GATB results are interpreted
for him, a testee is frequently surprised to learn of
various work areas which he may have never considered, and
for which he is qualified.

Chances are good that the reader has taken some
test of scholastic aptitude. The American College Testing
Program Examination (ACT) and the Scholastic Aptitude Test
(SAT) are two tests used to help select students for
college because they are given to predict a person's
success or failure in higher education.

<u>Achievement tests</u> are special ability tests to
measure how much a person has learned or accomplished
(Most classroom exams given by teachers measure a person's
achievement.) Some tests of special ability measure both
a person's aptitude and achievement. For example, the

above-mentioned ACT and SAT can be called aptitude tests when they are used to <u>select</u> students for college or to <u>predict</u> their success in college. But because these tests also measure a student's intellectual achievement and development, they may also be seen as achievement tests. We therefore see the importance of determining the <u>purpose</u> for which a test of special ability is used.

Along this same line of thought, there is a real relationship between tests of <u>special ability</u> and <u>intelligence tests</u>. The preceding section pointed out that intelligence tests measure several different mental traits which are lumped together and called "intelligence". Tests of special abilities, however, are given to measure an isolated trait or skill like finger dexterity, spatial perception, logical reasoning, or musical and artistic aptitude. One can therefore say that tests of special abilities are related to intelligence tests because they actually measure a single ability out of the whole range of traits which make up intelligence.

<u>Special Abilities in a Competitive World</u>. When the results of tests are appraised for aptitude and achievement, one must remember that he is looking at only a small fraction of all the abilities which make up someone's total personness. Granted that our competitive world places high importance on certain marketable abili-

ties such as mechanical, musical, clerical, and reasoning skills. But at the same time our competitive minded society might be ignoring other special abilities which may have more importance and a higher value for some people. Consider, for example, special abilities like love, justice, compassion, acceptance, and forgiveness. Tests have not yet been constructed to measure empirically these aptitudes and achievements. Neither are these qualities considered marketable by our competitive system. Yet many of us feel they are more essential for adequate living than most testable abilities.

Whenever one looks at results from aptitude and achievement tests, perhaps he can remember that only a small segment of a person's real special abilities are being measured. Personality tests may measure other aspects of someone's behavior, but we will have a long wait for an instrument which can ever measure some of our deepest and most human special abilities.

Personality Tests

The world is filled with people who differ from one another in their level of <u>intelligence</u>, in their <u>special abilities</u>, and also in their <u>personality</u>. Recall that <u>personality</u> is a combination of behavior patterns or characteristics in a person which make up <u>who he is</u>. Consider for a moment the various personality traits you find

in some students in your class, or even within your own family.

Intelligence is certainly a part of one's personality and so are special abilities. But generally, tests of intelligence and special abilities measure a person's maximum performance whereas personality tests are designed to measure a person's typical performance -- how a person usually behaves in various circumstances. (Cronbach, 1960) Typical performance includes a person's needs and drives (motivation), his self-concept, interests, values, honesty, shyness, humor, dominance, and other social traits for "normal" personalities as well as for people who are poorly adjusted or who have inadequate personalities.

It is not easy to measure personality, as you can well imagine. For example, how can someone's typical performance be captured on a given test? Private detectives cannot be hired to follow the person day and night to record his every behavior. So he has to be asked "typical" questions on a self-report type test, e.g. What is your strongest fear? Do you frequently feel moody and depressed? If you had one wish, it would be . . . Some people trying to answer this type of question might be unable to communicate their feelings adequately. Other persons might be inclined to fake answers so that they

appear better than they really are. Another difficulty
is the proper evaluation and interpretation of the test
results.

In short, one can say that although personality
tests are fascinating, most of them are far from the stage
of development and precision already reached, for instance
by the Stanford-Binet or Wechsler tests.

Kinds of Personality Tests. Having briefly seen
what personality tests measure, we can now distinguish two
ways **how** they measure a person's typical personality: by
inventory and by projective techniques. The self-report
kind of question mentioned above is called an **inventory.**
One of the best known inventories is the Minnesota
Multiphasic Personality Inventory (MMPI), a well stand-
ardized questionnaire of 550 true and false type items.
In its twenty year history the MMPI has been revised and
adjusted to meet the needs of different organizations such
as businesses and mental health institutions. It is bas-
ically an inventory to determine the presence or absence
of eight forms of mental illness; hypochondriasis, de-
pression, hysteria, psychopathic, deviate, paranoia,
psychasthenia, schizophrenia, and hypomania. In addition
to these scales, the MMPI has scales to measure masculi-
nity-femininity, social introversion, and also four scales

to diagnose the attitude of the testee and the truth of his answers. This built in "truth scale" detects evasiveness or faking. MMPI items cover a wide range of subjects including physical and psychosomatic health; sexual, religious, political attitudes; and questions concerning education, marriage, phobias, delusions, etc.

While the MMPI has been associated with diagnosing poorly adjusted personalities, another personality test, the California Psychological Inventory (CPI) was designed specifically for use with "normal" personalities. The CPI is thus sometimes favored over the MMPI by many psychologists today for certain testing situations. The CPI is a more recent test, but is similar in concept and design to the MMPI which is still the most researched inventory on the market.

Besides inventory tests, the second kind of personality test is the projective technique. Projective tests do not consist of questions to be answered like the inventory. Rather the testee is shown some ambiguous picture and asked to interpret it or respond (project) to it.

Perhaps the most talked about projective test is the Rorschach test of ten inkblots. The person being tested is shown one card at a time and given ample time to tell what he sees. The examiner scores the person

according to various criteria, e.g. how many responses ·
were given for a card; did he see the inkblot as a whole
figure or in parts; was the person seeing beauty or
ugliness -- or what?

Another projective technique is the Thematic
Appperception Test (TAT) which uses pictures of people in
different situations instead of inkblots. The pictures
are shown to the subject and he is asked to make up a
story (theme) for each picture. Like Rorschach testing,
the TAT evaluator is interested in different responses
given, e.g. does the testee identify with one of the
characters in the picture; how does the testee project
himself into the story he tells?

While the inventory and the projective techniques
remain the two leading kinds of personality tests, other
methods for measuring personality are used: interviews,
ratings, and situational tests (where the person is
observed in a contrived situation). None of these has
proved to be entirely satisfactory as an overall measure-
ment of someone's personality. But when several differ-
ent tests are given to a single subject, the skilled
examiner can often come up with a profile of the testee
showing a general pattern of the various characteristics
measured. With permission, a profile (psychograph) could
be interpreted to a teacher, counselor, or employer if the

testee needs help.

Implications of Psychological Testing

Misunderstandings. This chapter has listed just
a few of the many psychological tests which meet the four
characteristics of a good test. But there are also num-
erous "bad" tests. Not only the bad tests, but also the
misunderstanding of good tests has led to what Anastasi
has called "the anti-test revolt" of the 1960's. She
states that this revolt was brought on by psychological
tests being misused, misinterpreted, assigned "occult
powers" which they were never intended to have, or that
testing in general is just indiscriminately attacked.
(Anastasi, 1968)

We might add that this "revolt" is met by two
different tactics from separate quarters of the psycho-
logical arena. One tactic is pursued by the "pro-testing
psychologists" who are quick to answer charges leveled
against the testing world. The other tactic, followed
by the "non-testing psychologists" (or those who do not
rely too much on the use of tests), is a sort of con-
spiracy of silence regarding the whole question of
testing. This latter group goes its own way, letting the
pro and anti test groups verbally slug it out.

But there are certain criticisms which evoke the

attention of almost everyone interested in the proper use of psychological tests.

Privacy. One such criticism leveled against psychological tests, even causing Congressional invest- igations, is the claim that some tests invade the privacy of a person being tested. The privacy issue is tackled by the published Ethical Standards of Psychologists. This formal statement spells out the responsibility required by psychologists, the moral and legal standards, confi- dentiality, and several other safeguards to be maintained by the competent psychologist. (The complete text is in American Psychologist, 1963, 18, 56-60.)

The Cultural Question. Much heated rhetoric has also been generated lately on the subject of whether cer- tain tests discriminate against the culturally deprived person. Most test makers probably have a middle class orientation. It is unfair to word questions on a test in such a way that they appear foreign to a lower socio- economic test taker. By way of illustration, consider an inner city, culturally deprived child taking a test which requires matching a picture of an egg to a picture of a chicken. The child might never have seen a farm; believes that eggs come in cartons from a store; and when he is lucky enough to eat chicken, he doesn't associate the

good tasting meat called "chicken" with either an egg or what the live animal might look like. He may have the same "innate intelligence" as other children who perform well on the test, but cultural circumstances have limited the inner city child to a poorer test performance.

Attempts are being made to devise "culture free" tests, but the criticisms still rage. Perhaps a better approach in answering the culture question is to state that wherever a person does poorly on culture related questions points out areas where remedial work is necessary. Thereby the test at least is serving the purpose of indicating a need for improving some weakness. This raises another moral issue. Let's follow a sequence of reasoning. First, culture influences a person's behavior. Finally, if that sample of behavior is not in conformity with middle class averages then who is to be the final judge on what constitutes proper behavior for this person? Furthermore, how should the testee be changed -- or should he be changed?

Average and Normal. Questions like "should a person be changed?" and "what benefit is there for a person to conform to the 'average'?" lead to a final consideration of the implications of testing. Psychological tests are just one means of assessing a human being. Because tests are standardized from average populations, we some-

how get the value feeling that average is normal and safe, and that deviating from the average is either good or bad depending upon which side of the bell shaped curve a person scores.

Normalcy has been a fetish in our country. Fashions and fads mark the man and woman as either normal or abnormal. Daring to be different, however, may be a blessing in disguise -- especially if normality implies mediocrity. Many young people today have already rejected mediocrity and don't appreciate being labeled "normal" or "average". Therefore let it be remembered that an average score on a single psychological test does not necessarily imply that a person is an all around "average" or "normal" human being. There is no such creature. Traits measured on tests are only part of our personness, and one's score of average should not be interpreted as that person being normal -- and far less as being mediocre. Neither should above or below average scores on some sections of a test cause us to label someone as abnormal or "far out". The total behavior of a person must always be considered.

The Three Schools and Tests

Behaviorism. The **behaviorists** have relied heavily on tests of intelligence and tests of special abilities. Because these kinds of tests give quantified measurements,

the behaviorist then has empirical evidence with which to evaluate a person. He can then measure the subject's progress or decline over a period of time. With testing instruments the behaviorist can also objectively measure his own effectiveness if he is trying to change some person by modifying that person's behavior.

Many learning theories have been incorporated into behavioristic psychology. For this reason behaviorists naturally feel at home with tests of intelligence and special abilities. These tests themselves have in turn benefited from the ongoing research of behaviorists who have improved testing skills and evaluations for both humans and animals. It is safe to say that the vast majority of psychometrists today would either be behaviorist or eclectics with strong behavioral tendencies. (Eclectic: a person who chooses or selects ideas and methods from more than one source or system.)

The psychoanalytic school. Freudian psychologists are more closely identified with personality testing than they are with intelligence or tests of special abilities. The affinity of psychoanalysts toward personality testing is understandable when one recalls that many theories of personality are Freudian or neo-Freudian. Personality tests, more than other psychological tests, give some measurement of the unconscious behavior of a person. Per-

sonality inventories such as the MMPI with its scales of mental illness give information to the therapist which fits the psychoanalytic model of mental sickness. Projective tests also are frequently used in the offices of psychoanalysts. To say that psychoanalysts are associated with personality testing is by no means intended to exclude them from intelligence or special ability testing, nor can it be stated that behaviorists and third force psychologists do not also engage in various uses of personality testing.

The third force school. The least test minded group of psychologists are those of the third force. While they realize the merits and usefulness of certain testing procedures, they are also inclined at times to be critical of those psychologists whom they feel rely too much on testing. What was said above about the untestable but important abilities of love, generosity, compassion, and forgiveness would hold true especially for humanistic psychologists. Emphasizing man's various positive qualities which lead to self-actualization, humanistic-existential psychologists would be more interested in measuring positive goals and values of the healthy personality (and groups) than in evaluating scales for neurotics and psychotics. Self-report tests for the healthy personality are constantly being developed by third force peo-

ple. Perceptual psychologists are perhaps the most in-
clined of the third force toward testing. They work with
Gestalt learning concepts and with tests of special
abilities like space perception.

Test results do not give a mandate to third force
psychologists to "cure", "shape", or "modify" a person's
behavior. The results are simply used as a partial in-
dication of behavior so that a person may know himself
better. He may then wish to change himself, perhaps with
the help of the psychologist -- but only after the two of
them have thoroughly discussed all the consequences. Any
decision for change is thus always left to the freedom of
the client rather than determined by test results.

Hints on Taking a Standardized Test

Suppose you take a standardized group test for
intelligence, aptitude, or achievement. You might want to
be aware of the following hints:

1. Know if it is a speed test or a power test.

2. If it is a speed test then determine how much
time you can average on each question -- or, for instance,
on every ten questions. (Bring a watch!)

3. Find out if wrong answers will count against you
or if only correct answers will be totaled. If you are
penalized for a wrong answer you will be less apt to guess
at unknown answers.

4. Read the instructions carefully.

5. Glance over as much of the test as you are

allowed before you begin to write. At least you will discover how many questions you have to answer.

6. If it is a speed test, skip the answers you don't know or the answers that take a lot of time to figure. If you struggle over hard questions early in the exam you may miss the chance to answer easy ones later on. Besides, sometimes later questions jog your mind to give you a clue to an earlier answer you didn't know.

7. Don't be too eager to change an answer you have put down. Research shows that first choices are usually the best choices. Change an answer only if you are reasonably sure.

8. With multiple choice questions you aren't sure of, eliminate quickly as many bad choices as you can. Your final choice is then often narrowed down between two possible good answers.

9. With true-false questions be cautious of strong words like "all", "every", and "always". Such generalizations often (not "always") call for an answer of false.

10. Get a good night's sleep before the test. Forcing study with pep pills isn't recommended.

With many standardized tests, you cannot benefit from much cramming. For example, the Graduate Record Examinations (GRE), which is often required for admission to a graduate school, contains questions over broad areas which require already learned skills like mathematics, algebra, reading for comprehension, and logic. If a person does not have such skills, a hard night's study won't help much. Some bookstores will sell "practice" GRE's to sharpen up on, but it is debatable if these sample tests aid greatly in preparing the student. By the way, the GRE has the reputation among students for being an

extremely hard exam. So if you take it some day and feel you missed many questions, don't feel too bad. Since the GRE is purposely "rough", your final score may surprise you -- pleasantly.

BIBLIOGRAPHY

Anastasi, A., Psychological testing. New York: Macmillan, 1968.

Bugental, J.F.T., Challenges of humanistic psychology. New York: McGraw-Hill, 1967.

Cronbach, L.J., Essentials of psychological testing (2nd ed.). New York: Harper and Row, 1960.

Nichols, R.C., The national merit twin study. In S.G. Vandenberg (Ed.), Methods and goals in human behavior genetics. New Yor: Academic Press, 1965.

Nunnally, J.C. Introduction to psychological measurement. New York: McGraw-Hill, 1970.

Severin, F.T., Humanistic viewpoints in psychology. New York: McGraw-Hill, 1965.

Terman, L.M., and Merrill, M.A., Stanford-Binet intelligence scale: Manual for the third revision form L-M. Boston: Houghton Mifflin, 1960.

Tyler, L.E., Tests and measurements. Englewood Cliffs, New Jersey: Prentice-Hall, 1970.

CHAPTER VII

HUMAN DIFFERENCES

The branch of psychology which studies how individuals and groups of people differ from one another is called _differential psychology._ No one can deny that significant differences do exist between persons and among groups. Even identical twins are markedly different from each other in various ways. Yet at the same time persons and also groups have _similarities_ to one another. This chapter will present both sides of differential psychology; namely, the ways humans differ, and how they are similar. After an introduction to differential psychology itself, topics will include individual differences (e.g. intelligence, aptitudes, etc.) in one section, and group differences (e.g. the mentally retarded, the sexes, etc.) in the final section.

History and Methods of Differential Psychology

Throughout the history of mankind human differences have been observed. In the _Republic,_ Plato's ideal state would have people assigned to the tasks for which they were best suited since " . . . no two persons are

born exactly alike, but each differs from each in natural endowments; one being suited for one occupation and another for another." Plato went on to propose a test which would select men proper for military service -- perhaps the first aptitude test.

One of the first systematic measurements of human differences cam from astronomy, not psychology. In 1796 a royal astronomer at Greenwich fired his assistant because they could not agree on the number of seconds it took for a star to pass across the field of a telescope. This incident was taken up later by other astronomers who determined that people do have differences in observations. The human quality of vision was thus objectively measured resulting in quantitative data to show this particular individual difference.

Galton. About the time that Wundt was beginning his experimental laboratory in Leipiz in 1879, the brilliant Englishman Sir Francis Galton (1822-1911) was writing about human differences. Almost single-handedly Galton paved the way for differential psychology. He was a biologist (a cousin of Charles Darwin), an explorer, a mathematician, and he raised thoroughbred race horses. Fortunately for mankind, Galton turned from breeding horses to measuring humans. Wundt and other early experimental psychologists either ignored human differences or treated

them as chance error. But Galton devised tests to measure a person's physical strength, reactions, visual and auditory discriminations, and several other human behaviors. During these studies he formulated the normal curve of distribution and pioneered the idea of the correlation coefficient (see Chapter VI).

Galton (1908) obtained his data from people who came to his "anthropometric laboratory" first set up at the International Exhibition in 1884. The people would pay a small (threepenny) fee for admission and then would be measured for keenness of sight and hearing, color discrimination, reaction time, and other physical attributes. They received their personal data on a card, and Galton kept a duplicate for statistical purposes. Everyone was satisfied (except Galton at those times when his stronger patrons would break his measuring instruments). Today a scientist with Galton's creative ideas would undoubtedly be underwritten by a large financial grant to do similar work under more ideal conditions.

Cattell. While most early experimental psychologists were concerned about investigating the similarities of humans, one of Wundt's American students, James McKeen Cattell, shared Galton's interest in the differences of individuals. Besides establishing psychology laboratories at the University of Pennsylvania and Columbia College,

Cattell introduced the term "mental test" to the world of psychology. Mental tests and measurements provide for psychology the certainity and exactness of the physical sciences (Cattell, 1890).

Differential psychology was off to a good start with the mental test movement at the turn of the century. Psychologists like Cattell sought to measure intelligence as an individual difference. Actually their work shows little significant results because they assumed intelligence could be measured by the senses alone, e.g. perceiving, discriminating, speed of reaction, accuracy, etc. Testers soon discovered that persons who were rapid and had dexterity on easy tasks were not always the most intelligent (Tyler, 1965). As a consequence, the contributions of Binet, Terman, and Wechsler mentioned in the preceding chapter have been more significant in demonstrating the intelligence differences in persons.

The history of differential psychology would not be complete without mentioning the contributions from anthropology, social psychology, the influence of Darwin, the re-discovery of Mendel's laws of heredity in 1900, and the genetic research done on animals, especially the little fruit fly, drosophila. These elements, when added to experimental psychology, biology, statistics, and mental testing, begin to demonstrate the magnitude and variety

within differential psychology.

Problems to be studied. Ever since the beginning of the 20th Century, the same three basic problems of differential psychology have presented themselves to psychologists for study. Stern (1900) first identified these three problems: (1) What is the extent and nature of differences in the psychological life of individuals and groups? (2) What factors determine or affect these differences? (Heredity, climate, social or cultural levels, training, adaptation, etc.) (3) How are these differences manifested? (Handwriting, facial conformation, etc.) Throughout this century research methods are becoming more sophisticated and reliable therefore some definitive answers to these problems appear to be forthcoming.

Research methods. One essential research tool is correlation, mentioned in Chapter VI. Correlation studies between individuals and between groups show that what is measured (e.g. intelligence or aptitude) is more than just a mere chance happening. Correlational studies make it possible to find real relationships in individuals and in groups and also to make educated predictions about human differences for the immediate future.

In researching group differences, two methods may be used. (1) One group can be compared to another group

which already exists. For example, those who live in the city can be compared with a rural group regarding their political tendencies, level of intelligence, etc. (2) Two groups can be set up especially for an experiment. For example, one group (the experimental group), composed of sixth grade students randomly selected in an integrated school, would have their education supplemented with an additional hour a day at a teaching machine. The other group (the control group) would also be randomly chosen from the same general population of sixth graders of that school but would not have the added hour of programmed learning. After six months, let us say, both groups would be given a battery of tests to determine if any significant differences in learning have occured between the two groups. This process is called an experimental procedure because it was especially set up or contrived, whereas the first method, comparing city to rural dwellers, is called naturalistic observation because their nature was merely observed and not manipulated by any experimental techniques.

Another way to research is by observing how people change or develop over a period of time. Two methods can be used to study developmental changes: cross-sectional and longitudinal. An example might be the best way to show how these two work. Presume that a study is set up (as a

naturalistic observation) to make comparisons of adjustment problems in marriage. The purpose of these observations is to determine the extent and differences of the problems between husband and wife after one year of marriage as compared to problems they experience after ten years of marriage. If the study were done cross-sectionally, the method would be to test a group who were married one year, and then also test another group married for ten years and draw correlations regarding their respective adjustment problems.

On the other hand, if the study was longitudinal, a pre-test would be given to couples married for one year and then, ten years later, a post-test would be given to the same couples. Correlations between the two test results would then be studied. Naturally the longitudinal study involves a longer period of time to get final results, may lose some people through the years, and may raise some difficulty in selecting persons willing to cooperate. But longitudinal observation is increasingly being considered more effective and valid because it accounts for developmental changes within the persons being studied. With today's rapid environmental changes, especially the technological advances, longitudinal studies are certainly preferred over cross-sectional studies to account for any environmental factors on the way people or groups may

change.

Not all conclusions of researchers stand the test of time. In differential psychology, like any other branch of psychology, research mistakes are made, controversies abound, and better findings appear with further studies. But all this certainly contributes to scientific progress. As one of this country's leading differential psychologists, Anne Anastasi (1965), has put it, "The investigator who demands complete advance security will never push back the frontiers of the unknown."

Individual Differences

Individuals differ from each other in psychological ways as they do in physical ways. The obvious physical differences like weight, height, and coloring, are observable to everyone and are easily measured. However, psychological differences are often another story. They may not be so evident as physical differences, nor are they always easy to measure with precise accuracy, but people have been trying for centuries.

"Body Type" Theories of Individual Differences

In past ages people believed that there was a real connection between the physical characteristics of a person and his psychological make-up. It was felt that a personality could be "typed" according to some physical cause.

Greek classification. The ancient Greeks, influenced by Hippocrates and Galen, categorized persons' temperaments according to four body fluids or "humors". (1) The sanguine personality (prominence of blood) is warmhearted and pleasant; (2) The phlegmatic personality (phlegm in the body) is listless and apathetic; (3) The melancholic personality (black bile) suffers from sadness and depression; (4) The choleric personality (yellow bile) is irritable and easily angered. Modern day counterparts of this line of reasoning, with the aid of science, have shown that certain chemicals in the body like the hormones, do in fact influence our personality.

Psuedo psychology. Throughout history the human body has been regarded as giving clues about one's personality. Character was studied from facial expression (physiognomy), from the lines in one's hands (palmistry or chiromancy), or from handwriting (graphology), and personality was determined by the bumps on one's head (phrenology). Popular theories from folklore and literature lead some people to actually believe blondes are "dumb", readheads are "hotheads", a high forehead is a sign of intelligence, a square jaw indicates determination, and many other unfounded stereotypes. If there is any connection between physical characteristics and personality types, the correlations are so low that they are of little value in

judging individual differences. If any real relationship (between body and personality) would exist in a person, no one can say for certain that the body influences the personality behavior or vice versa. Maybe outside forces (e.g. early training, or cultural variables) account for many such similarities.

Sheldon's Constitutional Psychology. A more recent physiological theory of body types was presented by William H. Sheldon (1940) in which he designates three basic body types: (1) the endomorph which is round and soft in build and has relatively weak bones and muscles; (2) the mesomorph which is characterized as an athletic build; and (3) the ectomorph which is the "stringbean" build with long slender arms and legs. Sheldon theorized that along with each body type goes a characteristic temperament and personality. Thus the endomorph is a relaxed person who likes physical comfort (e.g., eating) and sociability. The mesomorph is assertive, competitive, and energetic. The ectomorph is restrained, mentally intense, and somewhat withdrawn. Undoubtedly there are pros and cons about Sheldon's constitutional psychology, but his theory does show another physiological approach to studying mans' individual differences.

The mistake of stereotyping. One obvious danger to

point out here is the temptation to stereotype people. To say that heavy-set people are always jolly or that thin people are always secretive may cultivate prejudiced beliefs. Similar prejudices are formed by such stereotyping as believing that Italians are volital, Blacks are rhythmic Yellows are inscrutable, Whites are formal, Scots are thrifty, Jews are shrewd in business, Swedes are stolid, Poles are garish, and so forth. Certain national and racial characteristics may stand out in groups, but by and large, individuals are just that -- individual. Injustice may also be done to the individual when types alone are used to describe someone's personality by using such generalities as "hippie type", "sorority type", "penny pincher", "effeminate", etc. Characteristics from fictional writings which type persons as a Hamlet, Pollyanna, Scrooge, or a Charlie Brown further limit our view of someone.

Individual traits vs. types. Although using types to describe persons may have the advantage of providing a quick reference or identification, types are often too broad (and sometimes distorted) a designation to satisfy most differential psychologists. Therefore many psychologists now use traits instead of types to identify an individual's characteristics. A trait is some single aspect of one's personality such as honesty, humility,

sociability, orderliness, and thousands of others. Various
personality tests are constructed to measure an indivi-
dual's traits. Traits may also be considered as forming
into clusters to make up a personality type. For example,
a person who is a conforming type may possess the following
traits: readiness, seriousness, cooperativeness, trustful-
ness, good-naturedness, conscientiousness, and many other
single traits. To overemphasize either type or trait could
exclude the importance of the other in differential psycho-
logy. For the first part of this century, the emphasis was
on trait analysis, but during the 1960's a renewed interest
in studies of types has produced a significant amount of
recent exploration in the psychology of human differences.

Differences in Intelligence

The preceding pages told about some individual
differences which might have resulted from the combination
of the person's physical characteristics with his psycho-
logical personality. Besides personality differences,
humans differ in other psychological ways, chiefly in in-
telligence and special abilities. Individual differences
are therefore studied principally by the psychological
tests mentioned in the last chapter, i.e., intelligence,
special abilities (achievement and aptitude), and person-
ality tests.

Intelligence seems to have been a prime target for

differential psychologists for at least two reasons: a) good intelligence tests have been available for many years, and b) man's natural interest in human intelligence. In fact psychologists used to be so identified with testing intelligence that between the two World Wars, if the man on the street were asked what psychologists do, he would probably have answered, "They give IQ tests."

Characteristics of intelligence. The word "intelligence" is not easy to define because it is no isolated thing but a composite of various functions. It includes the ability to deal with abstract concepts, memory, reasoning, and learning to adapt to new situations as well as profit from past experiences. Longitudinal studies using intelligence tests have shown that in children, intelligence grows with age. But when does intelligence stop growing? Early testers believed that little increase in intelligence occured after the ages of fourteen or sixteen. However, after testing 1,000 students, R. L. Thorndike (1948) maintained, that intelligence increased consistently up to the age of twenty-one and a half. A later report by P. E. Vernon (1951) conducted with British servicemen indicated that those in non-intellectual jobs showed an earlier decline in test scores than those who held intellectual jobs. The length of schooling one has also correlates highly with his intelligence test scores. Generally

those who have attended college score higher than high school drop-outs. Remembering the caution from Chapter VI not to regard correlation as proving a cause and effect relationship, it need not be decided here whether students become smarter in college, or smarter students come to college -- or a combination of both possibilities.

A longitudinal research conducted at the Fels Institute in Ohio (Sontag, et. al., 1958) focused attention on what kind of children increase their IQ's over a period of time. Between the ages of three to ten, boys' IQ's tended to increase more than girls'. Those children who increased were inclined to have traits of independence, aggressiveness, and competition. Other research has additionally disclosed that children from well-educated families and children who are active will increase intelligence scores more rapidly than other children.

The above findings are at best generalizations and meet with frequent exceptions, so they should not be seen as absolutes, nor can accurate predictions be drawn to be applied to any single person. The safest prediction that can be made from a child's intelligence test is how well he might do in school, viz., scholastic aptitude. His IQ scores along with his overall past performance are at best just fair predictors of his future success.

The idiot savant. Perhaps the most dramatic ex-

ample of individual differences in the broad area of in-
telligence is the idiot savant. This term literally means
"wise idiot", but these very rare people are neither wise
nor idiots. Usually they are far below average in general
intelligence, but they possess one or two isolated traits
for remarkable intellectual accomplishments. One such six-
teen year old boy was unable to carry on a normal conver-
sation or understand spoken requests, but he could multi-
ply or take the square root of almost any number presented
him on paper. Scheerer, et. al. (1945) did a longitudinal
study on another boy from his eleventh to fourteenth year
whose IQ was 50 on the Binet test. Much of the time he
was aloof to his surroundings, but he had a great interest
in people's birthdays. If he was given any date and month,
he could tell, without referring to a calendar, what day
of the week a birthday would fall on over a span of
seventy years. Other idiot savants display specialized
talents in music, drawing, mechanics, and memory, even
though their overall IQ is subnormal and some must even be
institutionalized. This kind of phenomenom points out
again how intelligence is not necessarily unitary but seems
to be made up of various mental factors or abilities.

An individual's intelligence does indicate one way
in which he may differ from his peers. But the battle of
life puts more demands on a person than merely having an

adequate measure of intelligence. Achievement and aptitude are also part of a person's needs, and they too can demonstrate how one individual differs from another.

Special Abilities: School
Achievement and Aptitude

Our schools have provided the best place in which to do studies on human differences. Lately other groups such as the military, business, and even the home have provided opportunity to research special abilities, but students are still the mainstay for information regarding achievement and aptitude. The differences among school children is a very real fact. Not all third-graders are alike in achievement and aptitude, nor can all high school sophomores be lumped into some stereotype.

Achievement. Studies by Hildreth (1950) indicate that a group of seven year olds can vary from the first to the sixth-grade achievement level. Another group who had spent about three years in school had educational ages which could have placed them all the way from the first-grade up to high school standards. Generally the higher people go in formal education, the greater the spread of differences is observed. For these reasons no single standard of achievement can be called "normal" for one particular educational level.

What makes one person differ from another in

achievement? Intelligence is not the only ingredient of achievement even though intelligence and achievement often are highly correlated. Other factors at play would have to include such qualities as motivation, cooperativeness, persistence, energy, physical well being, and learned habits of work.

Personality traits are certainly a part of an individual's overall achievement. Taylor (1964) summarized some personality traits observed in high (over) achievers. They manifested a positive self-value; their academic anxiety was directed, not free floating; they had acceptance rather than hostility toward authority; their interpersonal relations were positive; their activity patterns were oriented more academically than socially; and their goals were usually realistic.

How is achievement measured? The various achievement tests given in schools is one way to measure an individual's achievement. Another way is to observe his apparent success in later life. Researchsers will often measure a person's achievement by such standards as being listed in Who's Who or by the size of one's income and socioeconomic position. Such standards of achievement may have been adequate in the past when money and prestige were more widely sought values. However today it is this writer's opinion (and hope) that other values are surely

being realized in the life styles of young college-aged people. Achievement or success for many of these individuals is being measured in terms of such non-empirical values as happiness, a fulfilling way of life, and meaningful interpersonal relationships. If psychology courses can teach college students anything about values today, it might very well be that personal achievement is often experienced in many non-monetary ways.

Aptitudes. Closely related to achievement and intelligence is a person's aptitude. Aptitudes are special abilities or talents which an individual may possess or develop; for example, mechanical aptitude, clerical aptitude, motor skills, musical and artistic skills, and various professional abilities. The 'specialist' is often considered to possess some aptitude in a high degree; for example, the surgeon, the professional ball player, the efficient key punch operator, the expert auto mechanic, the craftsman, and so forth. Their special aptitude is obvious and quite observable (thus pointing out in another way how much individuals can differ).

Aptitude tests have been designed to measure these special abilities, but it seems reasonable to consider other aptitudes which are not currently measured but which are very important for many individuals. A long list of these could be prepared by each reader to include such

aptitudes as being a good housewife, an interesting con-
versationalist, a thoughtful and considerate roommate, a
loving husband and father, etc. These and other truly
human aptitudes are additional ways of showing individual
differences. Perhaps some promising current or future
research in differential psychology will one day make it
possible for such abilities to be not only measured but
also to be maintained and enhanced for the total benefit
of mankind.

Family Resemblance

So far this chapter has concentrated on __individual__
differences. The next section will treat __group__ differ-
ences. A convenient bridge between individual and group
differences is a discussion of the family, which is a
group of individuals who are similar, yet different.

Heredity vs. environment.
Certain qualities as
well as certain flaws do seem to run in families. Differ-
ential psychologists therefore have the task of trying to
sort out those inherited traits from the environmental in-
fluences on family members. The old "nature vs. nurture"
battle mentioned in Chapter IV wages frequently in differ-
ential psychology.

Certainly __heredity__ plays a large part in the re-
semblance of physical features and in some characteristics

of intelligence within a given family. But family environment may account for more similarities than at first suspected. Some common environmental features that surround a family to shape their lives are the socioeconomic level, geographic location, and cultural milieu. Interaction within the family itself (e.g. constant arguing or honest communication) is also an environmental influence.

Social expectancy is likewise a psychological factor which may explain some mutual characteristics found within a family. For example, a child can be reminded for some of the good or bad features of one of his parents or siblings, and he then determines to adjust his life accordingly. Other people, like family friends or more distant relatives, often provide expectancy by suggesting to the child that he "inherited" this or that talent or disposition. Thus the child's self-concept may be altered when he is expected to see himself in comparison with other family members.

The family environment contributes to some similarities and also accounts for some family differences. It might be expected that two brothers living in the same family would have very close psychological traits. However, the situation of having a brother, already provides one boy with an older brother and the older one with a younger brother and that sibling relationship in itself

creates differences (Anastasi, 1958). Then too, parental

attitudes may differ toward the two brothers. Moreover,

any experience which reaches the family will reach these

two brothers at different ages in their development. These

are just some of the reasons why one should not be sur-

prised if brothers and sisters have different behaviors

even though they resemble each other in many other ways.

Psychologists and sociologists, prior to the

"youth culture revolution" of the 1960's, used to state

with some assurance that children would follow the con-

victions of their parents to a large degree. Politicians

counted on young voters to vote the same party ticket as

their parents. Churches and fraternal organizations like-

wise expected children to resemble parental beliefs and

affiliations. Roff (1950) demonstrated that daughters,

even more than sons, tended to resemble parents in atti-

tudes and opinions. Which suggests that girls are more

influenced than boys by the psychological climate of the

home. In recent years such familial influence seems to

have waned (Keniston, 1965). Expectations of psychological

and sociological resemblance must now be made with more

caution.

Husband-Wife correlations. Marital correlations

might be of interest to college students looking forward to

marriage or to those who are already married. Some years

ago it was popular to use that law of physics which states that "opposites attract" and apply it to marriage. Maybe there is no other way to explain how some husbands and wives who are apparently so different still seem to have a happy marriage. Actually, marital correlations generally do not support the theory that opposites attract.

Intelligence tests show a consistent correlation between husband and wife of about .50 which is comparable to IQ correlations between parents and children and between siblings. On the other hand, personality characteristics between husband and wife show varying correlation. In emotional traits (e.g. emotional stability and social dominance) the correlations average out to a low .15. However on attitude tests and tests of values, the correlations are higher, ranging between .20 and the .70's with an average close to .60 (Roff, 1950).

Longitudinal tests over a period of years in marriage show consistent similarities with few significant shifts of attitudes, values, interests, and emotional traits between the two partners in marriage as they grow older. Maybe today we could build a stronger case around the theory that "likes" rather than "opposites" attract in marriage.

Twin studies. Some of the most significant and revealing research of family resemblance is with twins.

Twin studies began with Galton, and today large scale in-
vestigations of twins are progressing in several countries.
These studies again correspond to the three general cata-
gories of psychological testing, i.e. intelligence, spe-
cial abilities, and personality.

Intelligence tests given to identical twins have
correlations around .90, whereas the correlations of fra-
ternal twins cluster between .60 and .70 which is about
half way between identical twins and other siblings
(Nichols, 1964). Fraternal twins of course are no differ-
ent from sibling in heredity make-up. Therefore the
closer correlations for fraternal twins on intelligence
studies seems to indicate an environmental uniformity
which relates them more closely to each other than to their
other siblings. The higher correlations by the identical
twins might point to either a heredity factor or to an
even closer environmental uniformity than fraternal twins.
Special abilities (or aptitudes) test results find
identical twins more closely correlated than fraternal
twins. Personality tests, on the other hand, produce a
lower correlation than ability or aptitude results, but
here again identical twins are more similar to each other
than are fraternal twins.

Expressive reactions of twins have also been stu-
died and it was found that about three quarters of the

identical twins could not distinguish their own voice when it was played back from a recording. They confused it with their identical twin. Only about one eighth of the like-sexed fraternal twins could not pick out their own voice. Other expressions, such as posture and facial expressions, also showed higher similarities between identical twins than fraternals.

Twins have also been used in research to discover causes of psychological disorders. The following evidence seems to clearly indicate that in schizophrenia a real hereditary factor ixists. Kallmann and his associates (1953) at the New York State Psychiatric Institute tested nearly 1,000 twins who were institutionalized and diagnosed as schizophrenic, and then they went about to check any relatives of these people who had been likewise diagnosed. The main finding, as indicated in Table 1, is the high concordance of schizophrenia symptoms between pairs of monozygous (identical) twins and also the close concordance comparisons between dizygous (fraternal) twins and full siblings who really share the same degree of heredity as any siblings. When such a small percentage of the general populations is expected to be schizophrenic, the importance of this study becomes very significant. Kallmann suggested a hypothesis that a single recessive gene, which might produce a metabolic deficiency and thus

predispose an individual to schizophrenia, could be an explanation accounting for the heredity factor involved. However Kallmann and others do not discount the influence of environmental factors accompanying the obvious hereditary factors.

Table 1

Concordance Rates for Schizophrenia as Determined for
953 Twin Index Cases in New York
(Data from Kallmann, 1953, p. 146)

Type of Kinship	Concordance Rate
Monozygous twins (Identical)	86.2
Dizygous twins (Fraternal)	14.5
Full siblings	14.2
Half siblings	7.1
Step siblings	1.8
Parents	9.3
Expectancy in general population	0.7 to 0.9

Kallmann and his associates also applied his study of twins to other psychological disturbances including manic-depressive, involutional, and senile psychoses, as well as childhood schizophrenia, feeblemindedness, homosexuality and suicide. Just as the above study indicates, there was a similar higher concordance among monozygous than among dizygous twins and also a decreasing rate among

the more remote degrees of kinship. Corresponding concordances were manifested in all these other disturbances except in suicides. With these studies Kallmann used a much smaller sample of people than with his studies of schizophrenia. Therefore until better tested, these findings must be regarded as highly tentative. Although these tests do seem to point to the influence of heredity, it must be remembered that this evidence does not indicate that any of these unhealthy conditions are incurable. In fact, the more that is learned from this type of research, the quicker the cures for mental illness can be expected.

One final application of twin studies is in the area of foster homes, where some light is shed on children raised away from their own family. Adequate research has not yet been done on this subject, and what little there has been is disappointing in its significance. About all that can be said is that foster children on the whole seem to turn out better than would be expected. Apparently the love and care they receive from foster parents is often as good (and sometimes better) than that received by many children in their real homes. Such favorable prognosis cannot be assured those children raised in institutions. But in recent years, vast improvements made in numerous institutions is certain to help in the intellectual and emotional development of children who are raised in them.

Group Differences

The study of groups (e.g. the retarded, age or sex groups) is not just the concern of anthropologists, sociologists, or social psychologists. Differential psychologists are very interested in groups because group studies shed further light on individual differences. Besides, ignorance of a certain group (e.g. a race or the old aged) leads to misunderstandings. A misunderstanding of a group can turn into a prejudice which cuts off acceptance and communication and could ultimately end up as a hatred for individuals in that group. This unfortunate downhill pattern -- ignorance to misunderstanding to prejudice to non acceptance to hatred -- can be corrected with the help of differential psychology clearing away the initial ignorance and misunderstanding about various groups. The first of these groups to be looked at are the age groups.

Age Differences

Chronlogical age and sex are two biological factors which can neatly sort people into groups for controlled study. Once people are mentally sorted into age groups, their psychological differences can be conceptualized in terms of infants, children, adolescents, college aged, young adults, the middle aged, and older people. It is

precisely within these age groups that differential psychologists can work hand-in-hand with developmental psychologists. Both of these psychologists can thaw out any frozen ignorance or misunderstandings about age groups such as: young people always react quicker than older people; the process of learning stops during the twenties; older people's intellectual capacities slow down so much that they actually regress into a second childhood; or "you can't teach an old dog new tricks." Thanks to differential and developmental studies of age groups many of these kinds of misconceptions can be corrected.

Both cross-sectional and longitudinal studies provide clarifications of age groups, again according to the three psychological areas of intelligence, special abilities, and personality.

Intelligence differences. Cross-sectional studies have turned up evidence that there is no appreciable decline in a person's capacity for general information and vocabulary until about age sixty. However, other mental abilities (e.g. analogies, learning new concepts, etc.) do show a general pattern of decline in effectiveness from early adulthood to old age. This decline is only slight during the middle decades (the 30's, 40's and often 50's) but becomes more marked in a person's later years (Jones and Conrad, 1933). Other cross-sectional tests disclose

that the sharpest decline with age seems to be in tests involving speed, abstract spatial relations, and visual perceptions.

Longitudinal studies covering periods of up to thirty years seem to disagree with earlier cross-sectional results and show increases rather than decreases in the above tests. If people remain mentally active, they show no decrease in intelligence until their sixties or seventies. Such research as done by Bradway and Thompson (1962) tells us to rule out the misconceptions claiming that decline begins in the twenties, and that only college level people show increases after their twenties. Older persons, though they can learn nearly as well as younger persons, may be handicapped by well-established habits. Memory of new material seems also to suffer with age, but many psychological factors, like motivation, can contribute to one person not learning as well as another. Moreover, it should be remembered that learning ability is not synonymous with intelligence.

Differences in special abilities. Turning from intelligence to special abilities, one must recognize a certain falling off in sheer physical strength with age. Tyler (1965) summarizes some conclusions which can be drawn regarding age differences in special abilities:

1. A steady decline of measureable ability begins after thirty but isn't marked until well after fifty.

2. Perceptual and sensory abilities decline earliest and most rapidly.

3. Motor abilities are well maintained until late middle age.

4. Performance in learning declines with age.

5. Regarding all these things there are wide individual differences within any age group.

Certain periods in one's life seem best for high achievement in various work accomplishments. Lehman (1953) concluded that definite clusters of ages are formed around quality achievements. Most of the peak years for work are in the thirties as is shown by the following examples:

Games and Sports (athletes) 25-29

Science (e.g. physics, inventions).......... 30-34

Literature (poetry) 25-29

Literature (fiction) 30-39

Literature ("best books") 40-44

Medicine and Surgery 35-39

Philosophy 35-39

Naturally, achievement is accomplished over a broad spread of years, and Lehman's peak years are an average. Since

Mozart could play three musical instruments at age six and Goethe wrote Part II of _Faust_ when he was past eighty, a wide range of age is possible during which great achievements can come.

Differences in personality. Unlike intelligence and special abilities, personality changes throughout life seem to be less noticeable. Slight personality changes will naturally accompany stress or threat, such as may occur in one's occupation. However, many psychologists hold that a man's interests at twenty-five will be essentially unchanged at fifty. Recalling what was said in Chapter V about an individual's developmental changes, it is well not to make blanket statements too assuredly.

In the last generation or two this world has witnessed a vast amount of change due to technology. It would be unthinkable that individuals' personalities, as well as total age groups, have not been affected by our changing world. Perhaps the greatest phenomenon of our times is best summed up in the word "change". Change not only encompasses, but also surpasses, any other single phenomenon which challenges us today, such as the population explosion, the advances in mass communication, atomic energy, or space exploration. There has certainly been more change in the 20th Century than in the whole history of mankind prior to this century. Furthermore one can

find many reasons to predict that change will again be doubled before this century is over. Imagine the psychological adjustments and personality shifts which man has felt since the 19th Century due to the changes in our mode of living. Less than one hundred years ago men were living much as they had lived for thousands of years before with oil lamps, little plumbing, horses for transportation, no radio or transoceanic communication. It is interesting to speculate about the psychological adjustments necessary to cope with such recent changes as well as other like these: the mandatory retirement age, people living longer, world wars followed by baby booms and reconstruction, more years spent in school, greater mobility, and a host of other pressures summed up in the overall concept of change.

When one can witness such massive changes within a decade, is it any wonder that young and old alike are concerned about gaps between generations? The 'conservatism' of older persons may reflect a cultural gap or a communication lag more than an age gap. Maybe the generation gap is not so much due to a chronological age difference as it is to change in the environment, the culture, and the different decades in which formative years were spent. If one would give more thought to such possiblities to explain the generation gap which seems to trouble our times, one might emerge with more tolerance and acceptance of

another's frame of reference -- while not losing any of his own perspective.

Sex Differences

Samuel Johnson was asked who is more intelligent, man or woman, and he replied, "Which man, which woman?" In a sense his reply summarizes much of what can be said about the differences between the two sexes. Differences between the sexes often boil down to individual differences. Yet there are some clear-cut group differences between men and women, notwithstanding the legitimate claims of women's liberation movements. The literature and the research on this subject is far too much to condense in a few short paragraphs, so only a few general trends can be presented here.

The noted woman psychologist who is often refered to in this chapter, Leona Tyler (1965), has pointed out that much of the research on sex differences from the beginning of this century until the 1930's was to establish the fact that females were not inherently inferior to males. The former feminist movement in this country was aided by these early findings. Two important facts were made clear in this early research: a) only small differences in mental abilities exist between the two sexes, and b) these differences are accounted for by sociological rather than biological factors. During the 1930's measurement of moti-

vational and personality traits began, such as interests, values, and emotional needs. These findings were not to show that women were like men but rather to arrive at a better understanding of each other so that good relationships could be improved. During the 1950's the research switched to sociological emphasis, especially of male and female roles, and the process of identification, e.g. girls learning to be feminine through identification with men.

It became apparent that separate traits like aggression or dominance in individuals are linked together differently according to the sex of the person. To clarify these patterns of relationships became part of the task of differential psychologists in the 1960's. Obviously much of the data which has been gathered must be regarded as purely descriptive, and the further task remains to assimilate that data and then aim for better interpersonal relationships between sex groups and among persons of both sexes.

Intelligence differences. Mental retardation occurs more frequently in boys than in girls. However, history seems to be filled with more male than female geniuses. These extreme positions of males, when placed on the normal curve of intelligence, may simply say that males vary more than females in intelligence. This hypothesis, sometimes called the theory of greater male variability

(tending toward the extremes), shows females clustered in the middle area of the normal curve, while males are more spread out to either (retarded or genius) tail of the curve. Whether or not this theory can hold up under further research is a matter for time to tell.

In past findings relating to intelligence, Tyler (1965) summarized that boys surpass girls in science, spatial judgment, and mathematical reasoning. Females; scores are higher in rote memorizing, verbal fluency, perceptual speed, and dexterity. When general tests of intelligence are given however, these differences seem to cancel each other out, and little difference is found in the overall level of intelligence.

Special abilities. It must be made clear that sex differences do not mean an absolute difference but rather only shades of distinctions which are brought about biologically and culturally. For example, if it is said that men have made more contributions to civilization than women have, this is not to say that women have made only few such contributions. Women have contributed greatly to every age but in ways that are not often presented in history books. Great women often remained in the shadows of their famous husbands. Even in this country, until very recently, women did not have the full human and free rights of voting, holding public office, or being allowed

to participate in certain social areas.

In a similar vein, some women may be very high in certain talents usually considered masculine, such as economic and political, whereas some men may rate high on scales considered in our culture to be feminine, such as aesthetic or nurturing characteristics. Furthermore some women tend to test out higher in certain traditional feminine characteristics than other women -- and similarily for men. Such overlapping, as it is called, helps to trim down the very sharp differentiations we sometimes presume when comparing men and women as separate groups.

Although in public achievements it is true that more men than women are recognized, in school achievement more girls are higher than boys (Northby, 1958). Also in school, more girls are accelerated than boys. One plausible explanation for girls' better school achievements is their greater docility and submissiveness in class, which may help them retain knowledge better and certainly does not make them less favorable to many teachers.

The plain fact of greater physical strength in males (not necessarily endurance) equips them better for some tasks than women. Thus the abilities which each sex group develops are, in some degree, a biologically pre-determined matter.

Personality. In interests, attitudes, and overall

personality characteristics, there are many more differences between the two sexes than in the area of intelligence. However, like differences in special abilities, there is considerable overlapping in personality differences between males and females. On the Bernrueter Personality Inventory women were reported more socially dependent, more introverted, more neurotic, less self-sufficient, less dominant, and less self-confident than men (Bernrueter (1938). Because these findings were made about two generations ago, it might be hotly contended whether the present generation of women would fit such a profile.

Later studies, reflecting the influence of the psychoanalytic theories, concluded that males are more aggressive than females in the sense of initiative and outdoor activity. Feminine attitudes are often associated more with the desire for social love and friendship. Female thinking inclines them to be oriented to other persons and the environment, whereas masculine thinking is inclined toward self and personal achievement.

Undoubtedly the "battle of the sexes" is far from being finished. However, no one can deny that equal rights for men and women should exist. Whether in fact they do exist is another matter -- they should! But equal rights is not the same as equality in biological or psychological make-up. Men and women are different. But these differ-

ences are not so great that men and women can ever be con-
sidered two distinct species of the animal kingdom; nor
are these male-female differences so minimal that one can
ever ignore their importance in complimenting one another.
Precisely how psychologically different the two sexes are
is still subject to further research. Differential psycho-
logy has made a beginning, but only a beginning; and times
are changing so quickly that once a finding has been est-
ablished, there is fair reason to suspect that the popula-
tion just studied has already undergone additional dra-
matic changes. This difficulty of continually updating
research can also be applied to any other groups studied
in this chapter.

Mentally Retarded

More than 200,000 human beings are in institutions
for the mentally retarded in the United States (Kennedy,
1963). This represents but a small fraction of the nearly
5,000,000 mentally retarded in this country, which is a
little over two percent of the total population.

The large share of mental retardates are in their
homes or in foster homes and are often leading satisfying
and quite productive lives. In the past few years the
general public has become informed and more understanding
of the retarded person. Disappearing are attitudes which
have caused some people to shun them. It is easier now to

to view these persons as fellow human beings who share life
with us in spite of their mental deficiency.

Terms for the mentally retarded are also changing.
Rarely do we speak of the "feebleminded". Also dropping
from use are the former terms of classifying mentally de-
ficient people, viz. morons, IQ 50-69; imbeciles, IQ 20-49;
and idiots, IQ below 20. The following information pre-
sents not only the newer terminology but also the develop-
mental characteristics of these people (U.S. President's
Panel, 1963).

    MILD, IQ 53-69 (Mental age; 8-12)
From birth through five: Often not noticed as retarded
by casual observer, but is slower to walk, feed self,
and talk than most peers.

Six through twenty: Can acquire practical skills and
useful reading and arithmetic to a third to sixth
grade level with special education. Can be guided
toward social conformity.

Over twenty-one: Can usually achieve social and voca-
tional skills adequate to self-maintenance. May need
occasional guidance and support when under unusual
social or economic stress.

    MODERATE, IQ 36-52 (Mental age: 6-8)
From birth through five: Noticeable delays in motor
development, especially in speech. Responds to
training in various self-help activities.

Six through twenty: Can learn simple communication,
elementary health and safety habits, and simple manual
skills. Does not progress in functional reading or
arithmetic.

Over twenty-one: Can perform simple tasks under
sheltered conditions. Participates in simple recre-
ation. Travels alone in familar places. Usually
incapable of self-maintenance.

SEVERE, IQ 20-35 (Mental age: 3-6)
From birth through five: Marked delay in motor development. Little or no communication skill. May respond to training in elementary self-help, for example, self-feeding.

Six through twenty: Usually walks, barring specific disability. Has some understanding of speech and some response. Can profit from systematic habit training.

Over twenty-one: Can conform to daily routines and repetitive activities. Needs continuing direction and supervision in protective environment.

PROFOUND, IQ, below 20 (Mental age: below 3)
From birth through five: Gross retardation; minimal capacity for functioning in sensorimotor areas; needs nursing care.

Six through twenty: Obvious delays in all areas of development. Shows basic emotional responses. May respond to skillful training in use of legs, hands, and jaws. Needs close supervision.

Over twenty-one: May walk, needs nursing care. Has primitive speech. Usually benefits from regular physical activity. Incapable of self-maintenance.

Fortunately most instances of mental retardation are in the mild cases, and although they may have difficulty in school, usually not going beyond sixth grade, they can function quite adequately as adults.

Social adjustment: Like all individuals, the retarded grow up not only mentally but also socially. If we study their behavior, we see that some of them are more socially mature than others and they can handle themselves well in daily living. Usually the ultimate social age is higher than their comparable mental age. For example, the mildly and moderately retarded person has a social age

ranging from 10-18 years compared to a mental age from 6-12 years.

Some causes: What causes mental retardation? This question is not always easy to answer in individual cases. Sometime two types of classification are listed for retardates. In the first type, primary or familial retardation, there seems to be no organic defect and no evidence of disease or injury. The deficiency seems only to be an intellectual one and quite often other members of the family also have low mental ages, thus the name familial (due to genetics).

The other type of mental retardation is called secondary. Secondary mental retardation is caused by certain infections of the mother during gestation, e.g. syphilis or rubella (German measles). Brain injury at birth could also cause mental retardation. Other secondary causes are in disorders of metabolism functioning, e.g. phenylketonuria; disorders of endocrine glands, e.g. cretinism (which is becoming more rare today because the thyroid hormone can be replaced artificially). Certain genetic and chromosomal abnormalities may also result in mental retardation like mongolism which was mentioned in Chapter IV. Unfortunately many retardates also seem highly susceptible to physical defects, sensory defects, and a shorter life span.

<u>Community help</u>: Vast strides forward are being made in the prevention of mental retardation as well as in the training of retardates for better life adjustment. Most large communities have groups or clubs, often comprising parents of retarded children, to better understand and help the retarded. Many college students have helped make life more meaningful for the retarded at summer camps, special school classes, or in homes. When these collegians report how beautiful it is to have a retarded child run to them and give them a hug, it is easy to remember that these children are real persons to share our love. Anyone who helps a retarded person is often more helped in return with a feeling of satisfaction for having done something very worthwhile.

The Gifted (Genius)

At the opposite extreme from the mentally retarded are the mentally gifted -- again slightly over two percent of the population, or about five million in the United States. At the vary top of the mentally gifted are those people called genius, whose IQ's may range into the 190's. Psychologists have studied the gifted in three different ways: first, by estimating the IQ's of intelligent people from history; secondly, by keeping records of gifted children as they grow into adulthood (longitudinal studies) and thirdly, by studying the problems of gifted school

children. These three catagories shall be used here in discussing the gifted.

Historical personages. Francis Galton (1869) made the first extensive study of eminent persons and concluded (with reservations) a hereditary significance among the gifted. Although there is much favor among psychologists for the argument of heredity, there is also supporting evidence that environment is likewise important. Many eminent persons came from families where the cost of a good education for children could be afforded, where the child received good physical care, where mental stimulation was was customary, and where motivating factors inclined the child to high achievement.

Table 2 gives the estimated IQ's of a few men who achieved greatness, combining their unusual intelligence with hard work -- reminiscent of Carlyle's dictum that genius means the transcendent capacity for taking trouble. These men obviously did not take the Stanford-Binet or Wechsler tests, but the scores were obtained by estimating how they would perform on the Binet test, knowing at what age they began to read, vocabulary words they used at a certain age, and other information gathered from their biographies. Where are the women who could have qualified to be on this list? One might presume that biographical data on women of history is lacking because women often

obtained eminence only through marriage or within royalty.
Furthermore, gifted women were probably subdued in a male
dominated world as mentioned earlier. Thus it cannot be
assumed that only men are in the gifted or even the genius
catagory.

Table 2

The IQ's of some eminent men
estimated from biographical data.
(Source: From Cox, 1926)

John Quincy Adams	165	George Frederick Handel ..	145
Francis Bacon	145	Thomas Jefferson	145
Rene Descartes	150	John Milton	145
Charles Dickens	145	Wolfgang A. Mozart	150
Benjamin Franklin	145	Alfred Tennyson	155
Johann W. vonGoethe ...	185	Daniel Webster	145

Many people who are classified as gifted have ob-
tained remarkable accomplishment at an early age, and high
achievement continues throughout their lives. Mozart com-
posed a symphony at eight, and John Stuart Mill, the 19th
Century economist, read Plato in the original Greek at
nine. Even today we sometimes hear of a young person
completing high school at twelve or fourteen and finishing
college at sixteen years old. Francis Galton, himself a
brilliant man, wrote these words to his sister who tutored
him:

My dear Adele:
I am four years old and I can read any English book.
I can say all the Latin Substatives and adjectives and
active verbs besides 52 lines of Latin poetry. I can
cast up any sum in addition and can multiply by 2, 3,
4, 5, 6, 7, 8, 9, 10.

I can also say the pence table. I read French a
little and I know the clock.
                                         Francis Galton
                                         February 15, 1827

Lest the college student reading these pages becomes

disheartened, it may be mentioned here that not all gifted

people show up well early in life. Thomas Aquinas, the

13th Century philosopher and theologian, was called the

"Dumb Ox" by his classmates. Thomas Edison was considered

by his teachers to be dull in school, but it was the same

Edison who later said the "genius" is one percent inspi-

ration and ninety-nine percent perspiration.

A longitudinal study. The second route taken by

psychologists to learn of the gifted is to study excep-

tionally bright children over a long period of time. The

classic study in this area was begun by Lewis M. Terman in

1921 when he launched his longitudinal study of 1500

school children with IQ's of 140 or over. These children

were re-examined periodically as they grew into adulthood

and have already outlived the original investigator. The

study will probably not be completed until the 21st

Century. About a third of these children were from homes

of professional people, about one half from homes of higher

business classes; and only seven percent were from the lower working class. These figures support the argument that both heredity and environment seem to contribute to the mentally gifted.

From this monumental research project at least five major follow-up works have been published so far. One summary in the 1940's was The Gifted Child Grows Up (Terman and Oden, 1947). Another was published after Terman's death and was called The Gifted Group at Mid-Life (Terman and Oden, 1959). Both these reports indicate the high achievement obtained by the gifted children tested. Nearly seventy percent finished college, many earned doctoral degrees -- five times the national average for the men and eight times the national average for the women. Not only did these children excel academically, but they were also above the national norms in physical and developmental characteristics. They were taller (by one inch average) and in better physical health and appearance then the average children. Naturally there were exceptions. Some did not succeed in school, and other were sickly, but these few exceptions were less than one might expect to find in the national average. Therefore no one can any longer reasonably hold to the stereotype of the child prodigy who is weak and frail.

As children, these gifted individuals had a wide

range of interests. Their play life was similar to average children except that they enjoyed games which were a little more mature than games played by other children of their age. They read about twice as much as other children and their reading included more "good" literature. In personality traits and emotions, the gifted children seemed better adjusted then the average children. When tested at forty years old these people evidenced a slight dip in IQ but maintained overall good health and high success in their life work. In the mid-life report, over eighty percent of the men were in professional or semiprofessional work and only one percent were engaged in semiskilled work. None were in unskilled labor. Three or four were complete failures while a few more were well below the whole group's average. But still the total group was above the national average on most every count. Even the divorce rate was lower than throughout the country. By this time 93 percent of the men and 89.5 percent of the women had married at least once. This is slightly higher than the average for college graduates of the same age but about equal to the national population. The average IQ of their children was 132.7, somewhat below their parents but well above the national norms.

Problems in school. A final consideration regarding

gifted children centers around their <u>problems</u>. Because
they are brighter children than average, they may become
bored and thus seek out older children and adults, pester-
ing them with questions. Other children may resent the
gifted child who seems to have all the answers. If they
are put into advanced grades in school, they will be
physically smaller and may have some trouble adjusting
socially. If they stay in their own grade, there is again
the problem of boredom and a likelihood that the teacher
may not be able to handle the situation effectively. Per-
haps the gifted child seems out of place to others due to
these conditions and may therefore prompt others to look
upon him as being a bit odd. But here again, as is the
case with so many human differences, more understanding of
the individual is necessary. In some schools, special
classes or activities are planned for the gifted child
which can induce him to work according to his capacities.

Creativity

During the last two decades psychologists have in-
creased their research into the elusive factor of creati-
vity. The number of annual listings under "creativeness"
and "creativity" in the <u>Psychological Abstracts</u> in the
early 1950's averaged less than 10; while in the late
1950's and early 1960's the average rose to nearly 40. In
the late 1960's the average listings were over 130 per

year. Near the beginning of this renewal of interest in
creativity, Guilford (1950), who explored the various
factors of intelligence, opened his Presidential address
at the convention of the American Psychological Association
by saying, "I discuss the subject of creativity with con-
siderable hesitation, for it represents an area in which
psychologists, whether they be angels or not, have feared
to tread." Anastasi (1965) commented on this statement
fifteen years late: "Within a decade, the tread had become
almost a stampede!" Although the stampede has now con-
tinued even longer, there is little evidence that all the
notions of creativity will soon be corraled. Many ques-
tions about the subject of creativity remain unsolved.

Where does the subject of creativity really fit
into the study of psychology? Presumably it could merit
some treatment in the discussions of learning and thinking
of the first three chapters. However, creativity should
be mentioned here, at least briefly, to show how it con-
tributes to a better understanding of human differences.

Is creativity synonymous with intelligence? No, but
often the two go hand-in-hand. Yet there are many in-
stances where a person of average or even low intelligence
has moments of high creativity. On the other hand, no one
will ever say that the intellectually gifted person is
always the creative person. Barron (1963) investigated

a cross-sectional view that shows a correlation of about
;40 between creativity and intelligence. Artists, such as
sculptors, painters, and designers, averaged a correlation
between their work and their intelligence of about zero,
or slightly negative, indicating the uncertain contribution
of intelligence." Barron also claimed that beyond an IQ of
120, the influence of intelligence is negligible. From
then on creativity is a matter of personality variables
and motivation, more than a further increase in IQ.

So who is the creative individual? He is a person
who is trying to express something new. He is a 'non-con-
forming' individual who is willing to break with the
standard norms in at least one way; either by thinking,
solving problems, fashioning an artistic work, or in any
other way. Some persons may have only one or a very few
creative accomplishments, but typically the person who
produces quality creativity will also produce quantity.
History is filled with examples showing that creativity is
not just a once in a lifetime accident, but that quality
and quantity often go together. DaVinci, Edison, Beethoven
and Pasteur are just a few examples. Creative achievement
in the arts or sciences can come at any age in a person's
lifetime, but the greatest clustering is usually found in
a person's thirties. The peak age for quality is usually
reached earlier than the peak age for quanity of creative

work.

Of interest in this study of human differences
would be the traits or factors which seem to contribute to
an individual's creativity. Among these traits are flex-
ibility, independence of thought, undogmatic opinions,
openness, self-assertion, humor, and having a value for the
esthetic as well as the complex side of life. The creative
person, contrary to some public opinion, usually does well
in school, but is not very well adjust by 'normal' stand-
ards. He tends to come from unusual (and often bad) home
environments. Studies of creative adults show that as a
group few of them come from happy, well-structured home
environments (Nunnally, 1970). If these traits in a per-
son do provide a predisposition for creativity, then to
study them would enable the psychologist to know more about
the origins and complexity of the creative person. At
times the creative person may cause some problems for
family or teachers, but they may also enjoy life a lot more
than their noncreative peers.

A common misconception is often circulated that
creative people are highly neurotic, or at best, somewhat
odd. Certainly some great artists and writers were troub-
led with personal problems and neurotic tensions, but did
the neurosis cause the creativity, or did the creativity
cause the neurosis? It is doubtful that there exists any

"cause and effect" relationship between creativity and neuroticism. Rather it is fair to assume that these troubled people could have done even more creative work if they had experienced fewer problems.

Concluding Remarks

Differential psychology indeed covers a wide range of topics because it deals with both individual and group differences. The writings of this branch of psychology sometimes include studies of racial differences and socio-economic group differences. These studies often coincide directly with sociology and anthropology, and for this reason, the writer feels these broad studies belong more properly to the domain of social psychology.

Throughout this chapter, the reader may have been tempted to ask questions like, "Who is better? or "How much better is this group than that group." Although such questions are quite natural to ask, they are not the best questions to ask. If differential psychology has an overriding 'message' to conclude with, it may be to channel our natural curiosity about human differences into more fitting evaluative questions like these: "What really are the differences, and what exactly do they mean?" "How should this particular difference be interpreted and evaluated in light of the total research?" "Does this individual truly represent a total group," or should

stereotyping be avoided in this instance in order to better understand this single person?"

The Three Schools and Human Differences

Earlier in this chapter the three basic problems explored by differential psychology were presented, namely: (1) what are man's psychological differences? (2) how are they manifested? (3) what causes or changes these differences? It was also mentioned that this branch of psychology is interested not only in human differences, but also in men's similarities. These general considerations are all taken up, one way or another, by each of the three schools in modern psychology. However, as might be expected, each of the three forces presents a different approach and some slightly differing conclusions. But it seems only fitting that differences of opinion should abound among the three schools especially when regarding the very subject of human differences.

Behaviorism: The behaviorists are broadly concerned with most all of mans' overt individual and group differences. Because of their strong interest in empirical observation, they, more than the other two schools, have concentrated on measuring differences and similarities, especially of intelligence and special abilities. Much of their data has been from test results gathered in schools

and their own laboratories. A human difference is manifested when there is a deviation from the norm. This deviation can be on either side, negative or positive, of the normal curve. Behaviorists certainly do not regard humans as mere statistical numbers, but they are vitally concerned over the statistics produced from measuring humans. Even though much of their work is conducted with animals, behaviorists believe that animal research can be applied to human conditions.

Human differences are caused in the same way our similarities arise -- from past conditioning (learning). People are either different or alike, depending on how their environment has determined their deviation or sameness. Persons are changed by manipulating his behavior or the environment. If a given behaviorist truly believes that there is a potential for a machine-like sameness in mankind, then he will view human similarities (normalcy) as the desired goal more than encouraging human difference. Furthermore, if goodness is equated with normalcy, then a person, within certain limits, can be conditioned to become better if he is brought closer to the norm.

Psychoanalytic school. The Freudian psychologist will also view normalcy as a desired human goal. Normalcy means having no mental or emotional dysfunctions. The

abnormal person is someone who is different due to some disorder. Because the psychoanalyitic psychologist works out of a medical or biological model, he is deeply interested in adjusting the mentally sick person (a human difference) to live a 'normal' life. His work is done mainly in the hospitals, clinics, or his office, where 'abnormality' abounds. He is surrounded by patients who truly have individual differences. Therefore the area of personality has taken on more significance then intelligence or special abilities for this school.

An example of group personality differences from psychoanalytic investigations is that lower socioeconomic classes are often typified by a denial of fears and feelings of insecurity. In extreme cases their reactions can contribute to a psychosis. Upper-class people, however, develop fewer psychosis then lower-class people, but they are often overly concerned with tensions connected with advancement and the control of their feelings, which can contribute to a neurosis. Because lower-class individuals have a tendency to "let off steam", e.g. by freely showing emotions as in hollering, they develop fewer neuroses than the more reserved and 'proper' upper-class people.

The Freudian psychologist views human differences as caused mostly by childhood experiences, individual

motives, cultural pressures, and interpersonal relations.
Mans' _similarities_, on the other hand, are traced to his
common biology, which has endowed everyone with base
animalistic tendencies. An individual's unconsciousness
may be a mini-unconsciousness of the broader collective
(group) unconscious which further accounts for our simi-
larities. Therefore, human differences and human similari-
ties are both determined to a large extent by our past,
our lower nature, our environment, and our unconscious
processes.

    The third force: Human differences can find a person
not only on the lower (abnormal) end of the continuum, nor
even just striving for normalcy. The third force psycho-
logists are more likely to concentrate their attention
toward the person who is different in positive and healthy
ways -- the self-actualizing person. Because they believe
that man is by nature capable of freely choosing more
adequate goals and exploring positive aspects of behavior,
third force psychologists see individuals and groups of
individuals as potentially growth oriented. The degree of
human differences can be measured in terms of this
unfolding growth. Those things which contribute to differ-
ences in growth (becoming) would include loving relation-
ships, enriched environments, and a good self-concept
(feelings of worth and adequacy).

Other differences in man are due to his different perceptions of his world, the other, and his own self. Because individuals do perceive things differently, they will behave differently -- they will be different. Human differences are not necessarily to be avoided, nor swept under the rug. In fact they are to be encouraged but directed toward achieving the best "self" possible. The world would be dull and boring if sameness was the final goal of living. Thus, while third force psychologists admit there are similarities (sameness) and even sickness among individuals and groups, their philosophy (and their counseling) encourages those differences which lead to positive, productive, and fulfilling lives.

BIBLIOGRAPHY

Anastasi, A. Differential psychology. New York: Macmillan, 1958.

Anastasi, A. Individual differences. New York: Wiley & Sons, 1965.

Barron, F. Creativity and psychological health. Princeton, N. J.: Van Nostrand, 1963.

Bradway, K. P. and Thompson, C. W. Intelligence at adulthood: a twenty-five year follow-up. Journal of Educational Psychology, 1962, 53, 1-14.

Cattell, J. M. Mental tests and measurements. Mind, 1890, 15, 373-381.

Cox, C. M. Genetic studies of genius. Vol. II. Stanford, California: Stanford University Press, 1926.

Galton, F. Hereditary genius: An inquiry into its laws and consequences. London: Macmillan, 1869.

Galton, F. Memories of my life. London: Methuen, 1908.

Guilford, J. P. Creativity. American Psychologist. 1950, 5, 444-454.

Hildreth, G. Individual differences. From W. S. Monroe, Encyclopedia of educational research (Rev. ed.). New York: Macmillan, 1950.

Jones, H. E. and Conradm H. W. The growth and decline of intelligence. Genetic Psychological Monograph, 1933, 13, 223-298.

Kallmann, F.J. Heredity in health and mental disorders: principles of psychiatric genetics in the light of comparative twin studies. New York: Norton, 1953.

Kennedy, J. F. Mental illness and mental retardation: Message from the President of the United States. American Psychologist, 1963, 18, 280-289.

Keniston, K. The uncommitted. New York: Harcourt, Brace, 1965.

Lehman, H. C. Age and achievement. Princeton, New Jersey: Princeton University Press, 1953.

Nichols, R. C. The National Merit twin study. Paper presented at American Psychological Association, Sept. 9, 1964.

Northby, A. S. Sex differences in high school scholarship. School and Society, 1958, 86, 63-64.

Nunnally, J. C. Jr. Introduction to psychological measurements. New York: McGraw-Hill, 1970.

Roff, M. Intra-family resemblances in personality characteristics. Journal of Psychology, 1950, 30, 199-227.

Scheerer, M. Rothman, E., and Goldstein, K. A case of "Idiot Savant": An experimental study of personality organization. Psychological Monographs, 1945, 58, No. 4.

Sheldon, W. H. The varieties of human physique: an introduction to constitutional psychology. New York: Harper, 1940.

Sontag, L.W. and Baker, C. T. Personality, familial, and physical correlates of change in mental ability. Monog. Social Research Child Development, 1958, 23, 87-143.

Stern, W. Uber psychologie der individuellen differenaen. (Ideen zur einer "Differentielle Psychologie"). Leipzig: Barth, 1900.

Taylor, R. G. Personality traits and discrepant achievement: a review. Journal of Counseling Psychology, 1964, 11, 76-82.

Terman, L. M. and Oden, M. The gifted child grows up. Stanford: Stanford University Press, 1947.

Terman, L. M. and Oden, M. The gifted group at mid-life. Stanford: Stanford University Press, 1959.

Thorndike, R. L. Growth of intelligence during adolescence. Journal of Genetic Psychology, 1948, 72, 11-15.

Tyler, L. E. The psychology of human differences. New York: Appleton-Century-Crofts, 1965.

United State President's Panel on Mental Retardation. Mental retardation chart book: a national plan for a national problem. Washington, D.C.: United States Department of Health, Education, and Welfare, 1963.

Vernon, P. E. Recent investigation of intelligence and its measurement. Eugenics Review, 1951, 43, 125-137.

VITA

Martin G. Olsen
Place of Birth: Winona, Minnesota
Date of Birth: May 9, 1930
Marital status: Single

EDUCATION:

University of Northern Colorado. Doctorate in psychology, counseling, and guidance, in August, 1971.

Winona State College (Minnesota). M.S. in psychology, 1964.

St. John's University Seminary (Minnesota). Theological studies, 1953-1957.

St. Mary's College (Minnesota). B.A. in education and philosophy, 1953.

Fordham University (New York, New York). Two years of business administration and management, 1948-1950.

EMPLOYMENT EXPERIENCE:

1969-1971 Graduate assistantship at the University of Northern Colorado teaching various courses in psychology and counselor education while completing doctoral studies.

1957-1969 An ordained Roman Catholic priest in Minnesota (Diocese of Winona). Varied pastoral work and administrative duties. Director of counseling in parochial high school (Waseca, Minnesota). Counseling during all twelve years in high schools, colleges, and with adults (pastoral and marriage counseling).

Teaching:

1957-1963: High school theology (and athletic director).

1964-1969: Part time instructor of psycholofy and theology at St. Mary's College and at the College of St. Theresa (Minnesota).

1964-1969: Regular part time instructor of psychology at Winona State College (Minnesota). Also director of the college religious center (Newman Center) at Winona State College.