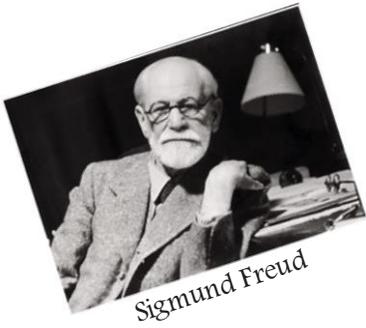
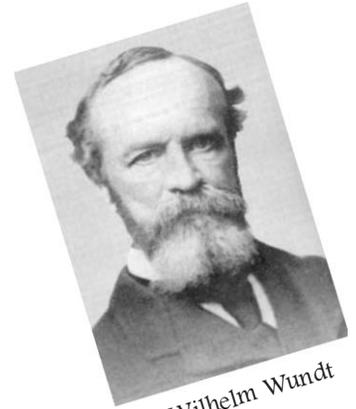


UNIT 1: HISTORY & APPROACHES



Sigmund Freud



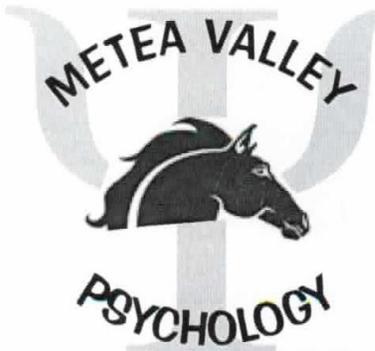
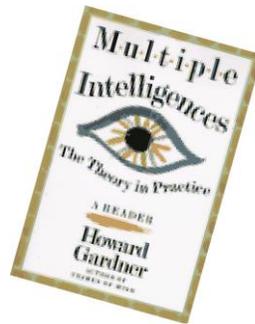
Wilhelm Wundt



Maslow's Hierarchy of Needs



William James



B.F. Skinner

Psychology Scavenger Hunt

Welcome to Psychology class. Your first job is to find someone in class that has either done, experienced, or fits each one of the qualities listed below. You may not use the same person for more than one item on the list. Once you've found someone for an item, ask them to sign their name on the line next to it. Good Luck!

Someone who...

1. Has had an MRI or a CAT scan

2. Sleeps more than 8 ½ hours a night

3. Has suffered a concussion

4. Has had a dream that their teeth fell out

5. Is afraid of spiders

6. Remembers something that happened to them before they were three

7. Has already taken their ACT or SAT

8. Knows their IQ score or has taken an intelligence test

9. Is an only child

10. Is the oldest child

11. Is the youngest child

12. Learned to ride a bike before age 5

13. Trained their dog or cat to do a trick

14. Knows the names of all the planets (and can prove it)

15. Has had a role in a play or musical

16. Is a starter on an athletic team

17. Wants to pursue a career in medicine or science

18. Enjoys working with young children

19. Is a dancer

20. Plays an instrument in a band

21. Can quote a famous line from Napoleon Dynamite

22. Resembles a famous person (who is it? _____)

23. Has a Type A personality

24. Enjoys solving crossword puzzles

25. Has taken a yoga class or meditated

Psychology Perspectives

Structuralism Perspective

This is the oldest Psychological Perspective. It was originally suggested by Wilhelm Wundt, (the founder of Psychology). Wundt believed that experimental methods should be applied to the study of fundamental psychological processes. For example, he tried to measure precisely how long it took to consciously detect the sight and sound of a bell being struck.

This perspective was originally founded by Edward B. Titchener, (a student of Wilhelm Wundt). The primary belief of Structuralism is that even our most complex conscious experiences can be broken down into elemental *structures*, or component parts, of sensations and feelings. To identify these structures of conscious thought, Wundt and Titchener trained subjects in a procedure called *introspection*. The subjects would view a simple stimulus, such as an apple, then try to reconstruct their sensations and feelings immediately after viewing it. They might first report on the colors they saw, then the smells, and so onto create a total description of their experience.

This was the first school of thought in early psychology, and the first school to disappear. Structuralism disappeared because introspection had many limitations. First, even a subject who was well trained in introspection varied in his responses to the same stimulus from trial to trial. Different subjects often provided very different introspective reports about the same stimulus. Introspection was not very reliable.

Second, introspection could not be used to study children or animals. And third, complex topics such as learning, development, mental disorders, and personality did not lend themselves to be investigated using introspection. Structuralism was simply too limited to accommodate the rapidly growing field of Psychology.

**Summary of Structuralism Perspective:
Psychologists from this school believe...**

Gestalt Perspective

German psychologists Max Wertheimer, Kurt Koffka, and Wolfgang Kohler were fascinated by the ways in which context influences people's interpretation of information. In the 1920's, they founded the school of Gestalt psychology. The psychology of *Gestalt*, which means "shape" or "form" in German is based on the idea that perceptions are more than the sums of their parts. Rather, they are wholes that give shape, or meaning, to the parts. As such, Gestalt psychology rejects the Structuralist idea that experience can be broken down into individual parts or elements.

Gestalt psychologists also believe learning is purposeful. Kohler and the other founders of Gestalt psychology demonstrated that much learning, especially problem solving is accomplished by insight, not by mechanical repetition. Insight is the reorganization of perceptions that enables an individual to solve a problem. This occurs in a sudden moment, such as "Here's the solution!!".

**Summary of Gestalt Perspective:
Psychologists from this school believe...**

Functionalism Perspective

This perspective was first established by a Harvard professor named William James.

Functionalism stressed the importance of how behavior *functions* to allow people and animals to adapt to their environment. The functionalists did not limit their methods to introspection. They expanded the scope of psychology research to include direct observation of living creatures in natural settings. Functionalists also examined how psychology could be applied to areas such as education, child rearing, and the work environment.

Like the structuralists, the functionalists thought that psychology should focus on conscious experiences. But rather than trying to identify the fundamental “structures” of consciousness, William James saw consciousness as an ongoing “stream” of mental activity. James stressed that, “Psychology, the study of the mind, is based on the fact that in each of us, when awake and often when asleep, some kind of consciousness is always going on.” From *Talks to Teachers* in 1899

Functionalism no longer exists as a school of thought. This perspective influenced current psychology by stressing the importance of studying human behavior and the adaptive role of this behavior.

**Summary of Functionalism Perspective:
Psychologists from this school believe...**

Psychoanalytical / Psychodynamic Perspective

The Psychoanalytical Perspective was officially founded by a Austrian medical doctor named Sigmund Freud. Freud believed that unconscious desires and conflicts were the root of an individual’s psychological problems. He felt that dreams could be interpreted to uncover some of these unconscious conflicts. Freud’s view has had a profound impact on Psychology.

Freud believed that much of our behavior is governed by hidden motives and unconscious desires. He is best known for psychoanalysis, which refers to a system of therapy in which the patient lies on a couch and freely says whatever comes to mind. The purpose of psychoanalysis is to uncover the unconscious desires and motivations that affect the patient’s behavior. Freud also used dream analysis as well as hypnosis to explore the unconscious.

Freud proposed that an individual’s personality developed through a series of critical stages that occurred during the first 5 years of life. To avoid psychological problems later on, you had to successfully resolve the conflicts that you met at each stage. If you became “fixated” in a stage, you were unable to move on to the next stage. This caused you to carry feelings of anxiety or fears into adulthood.

Freud felt that many unconscious desires and conflicts were sexual. Some of his more controversial views include the “Oedipus Complex,” where a boy wants to marry someone like his mother, and “Penis Envy,” where women want to be as powerful as men. Freud’s theories were also criticized for their emphasis of sex and male superiority.

Other psychologists expanded Freud’s views and created the *Psychodynamic* Perspective. These psychologists included Carl Jung, Alfred Adler and Karen Horney. Carl Jung felt that individuals have 2 unconscious, one personal and one shared with all humans, an “archetype”. Alfred Adler felt all people are born with an “Inferiority Complex” and strive to be superior. Karen Horney felt basic security was more important than an individual’s sexual drive and that most people suffer from anxiety due to this lack of security. These 3 psychologists all shared the view that one’s personality and problems are attributed to unconscious conflicts and that only through the confrontation of these unconscious conflicts can one be helped.

This perspective is impossible to measure since no one truly knows what is found in the unconscious. Another criticism of this perspective is that it uses “Hindsight,” ie. looks at the data and then forms a hypothesis to support this data. It is very unscientific.

**Summary of Psychodynamic Perspective:
Psychologists from this school believe...**

Biological Perspective

The biological perspective emphasizes the influence of biology on our behavior. Biological psychologists assume that our mental processes, (our thoughts, fantasies, and dreams) are made possible by the nervous system. They point especially to its key component, the *brain*. Biologically oriented psychologists look for the connections between events in the brain, such as the *activity of brain cells*, and behavior, and mental processes. They use several techniques, such as CAT scans and PET scans, to show which parts of the brain are involved in various mental processes. Biological psychologists have found that certain areas of the brain are active when particular behaviors are performed such as reading, talking, and solving math problems. They have also learned that certain chemicals in the brain are connected with the storage of new memories.

The biological perspective is especially interested in the influences of hormones and genes. Hormones are chemicals that glands release into the bloodstream to create various functions, such as growth and digestion. Genes are the basic units of heredity. Biological psychologists study the influences of genes on personality traits. They are especially interested in their relationship to one’s intelligence, psychological health and various behavior patterns.

The key to the biological perspective is that its views individual’s abilities and mental difficulties to be the result of problems with the brain and neurological functions. Biological psychiatrists are strong proponents of the use of drug therapy. They may use surgery and electroconvulsive treatment (shock therapy) as well.

**Summary of Biological Perspective:
Psychologists from this school believe...**

Cognitive Perspective

In the 1960’s the Cognitive perspective emerged. The cognitive perspective emphasizes the role played by thoughts in determining behavior. Cognitive psychologists view *mental processes* as a key to understanding why people behave in certain ways. They investigate the ways in which people *perceive* information, *solve* problems, *dream*, *develop language*, *daydream*, *solve problems and think*.

Many psychological theories have roots in the cognitive perspective. Jean Piaget, a Swiss developmental psychologist based his theory on this perspective. His theory showed how a mental picture of the world grows more sophisticated as the child matures.

Another aspect of the cognitive perspective involves information processing. Many cognitive psychologists have been influenced by computer science. Cognitive psychologists sometimes refer to our strategies for solving problems as our “mental programs” or “software.” Our brains are the hardware that runs our mental processing and learning, just as a hard drive may run a computer.

Cognitive psychologists believe that people's behavior is influenced by their values, their interpretations and their choices. For example, an individual who interprets a casual remark as an insult may react with hostility. But the same remark directed at another person might be perceived very differently by that person and thus may meet with a different reaction. A person's response varies with their cognitive thought process.

**Summary of Cognitive Perspective:
Psychologists from this school believe...**

Humanistic Perspective

In the 1950's a new school of thought emerged, called humanistic psychology. Humanist Psychology considers people's personal experiences to be the most important aspect of Psychology. Humanist Psychology believes that self – awareness, experience, and choice permit us to "invent ourselves". Unlike the behaviorists, who assume that behavior is caused largely by stimuli that act on us, humanist psychologists believe that we are free to choose our own behavior.

The Humanistic Perspective was largely founded by American psychologist, Carl Rogers. Rogers emphasized the conscious experiences of his patients, including each person's *unique potential* for psychological growth and self-direction. He also emphasized *self-determination*, *free will*, and the importance of *choice* in human behavior.

Abraham Maslow, another humanist psychologist, developed a theory of motivation that emphasized psychological growth. His theory is based on a *Hierarchy of Needs*. This hierarchy is composed of 5 levels: Physiological Needs (food, water, warmth, rest); Safety Needs (security, safety); Belongingness and Love Needs (intimate relationships and friends); Esteem Needs (prestige and feelings of accomplishment) and Self – Actualization (achieving one's full potential, including creative activities). Maslow felt that in order to achieve Self – Actualization one must progress through the other 4 levels of the Hierarchy. This must occur in order. Maslow also felt that at any time one can drop to a lower level of the Hierarchy. At this point one must again strive to reach the top of the hierarchy. Maslow felt individuals are not stagnant; instead they continuously move up and down the Hierarchy, striving for Self–Actualization.

Rogers and Maslow both agreed that the key to one's Psychological well-being is found in the person himself. He or she has the power to create, change and truly controls their own destiny. Free choice is the key. In summary, they felt that anyone can be anything or do anything if they feel they can. You create your own destiny.

The humanistic perspective views people as basically good and helpful to others. Humanistic psychologists help people get in touch with their feelings, manage their negative impulses, and realize their potential.

Critics of the humanistic perspective, especially behaviorists insist that psychology should be scientific and address only observable events. They argue that people's inner experiences are unsuited to scientific observation and measurement. Humanistic psychologists, however, insist that inner experience is vital to the understanding of human behavior.

**Summary of Humanistic Perspective:
Psychologists from this school believe...**

Sociocultural Perspective

The sociocultural perspective addresses many issues relating to the individual and the society or culture she / he lives in. These issues include: ethnicity, gender, culture, and socioeconomic status. The sociocultural perspective is based on the idea that all of these factors have a significant impact on human behavior and mental processes.

Studies of the experiences of various ethnic groups in the United States highlight the influences of these social forces on the individual. Some issues that relate to ethnicity include: bilingualism, its relationship to academic abilities, prejudice, and its relationship to individuals who suffer from psychological problems and the treatment they receive. The study of these topics enables people to appreciate the *cultural heritage* of various ethnic groups and understand the challenges they face.

Sociocultural theorists also examine gender. Gender involves not only being male or female but also the cultural expectations of each gender in one's society. These relate to one's self concept, social roles and one's behavior. An example of this is that Americans may see females that are outspoken as being assertive whereas Asians may view this same behavior as brazen.

People differ in many ways. The sociocultural perspective feels the key to one's uniqueness is defined and influenced by the culture one lives in.

**Summary of Sociocultural Perspective:
Psychologists from this school believe...**

Evolutionary Perspective

Evolutionary Psychology is the newest perspective of Psychology. This perspective (school) refers to the application of the principles of evolution to explain psychological processes and phenomena. The evolutionary perspective is based on the work of Charles Darwin. His book, *On the Origin of Species by Means of Natural Selection* was published in 1859.

The premise of the evolutionary school is that individual members of a species compete for survival and that only the fittest survive. Their survival depends on the individual's ability to adapt to the environment. The individuals who possess this adaptive ability reproduce and pass on their genes to their children. Their children survive because of their inherited genes and pass on this ability to adapt to the environment to their children. This process continues from generation to generation indefinitely.

This school influenced psychology because it stresses the importance of genes which have been passed on to help an individual solve problems and adapt to their environment. This perspective explains why many people have arachnophobia (fear of spiders). This fear may exist because many spiders were poisonous to our ancestors. Our ancestors that evaded these poisonous spiders survived and passed on their genes to their children and eventually to us.

This evolutionary perspective may explain our behavior towards other humans, mate selections, eating behaviors and emotional responses.

**Summary of Evolutionary Perspective:
Psychologists from this school believe...**

Behaviorism Perspective

Behaviorism emerged in the early 1900's. Behaviorism feels Psychology should focus its scientific observations on observable behavior that can be objectively measured and verified.

Behaviorism grew out of the work of a Russian physiologist named Ivan Pavlov. Pavlov demonstrated that dogs could learn to associate a neutral stimulus, such as the sound of a bell, with an automatic behavior, such as salivating to food. Once the association was formed, the sound of the bell alone would make the dog salivate.

John Watson, an American psychologist also supported the behaviorist approach. He performed additional experiments using Ivan Pavlov's view of *Classical Conditioning*. His most famous experiment involved an 11 month old child named "Albert". Watson taught Albert to associate furry animals with a loud noise. Eventually "Albert" associated any furry animals with fear.

B.F. Skinner, another American psychologist expanded the Behaviorism Perspective by establishing the concept of *Operant Conditioning*. This concept is based on the premise that all creatures, including humans behave due to the consequences they receive for their actions. Skinner felt that individuals continue to perform behaviors when they are reinforced and that they stop performing behaviors in when they are punished for the behavior.

Behaviorism focuses on the view that all behavior is learned through the environment and that the key to changing one's behavior is by changing one's environment. They also stress the use of measurement and experimentation involving **only** observable behaviors. Behaviorists often use laboratory experiments involving animals in their studies. Often behaviorists are seen as pessimists since they believe that man has no free will and merely responds to the environment. Yet, the behaviorist perspective is strongly supported as the most scientific of all perspectives.

**Summary of Behavioral Perspective:
Psychologists from this school believe...**

Eclectic Perspective

The eclectic perspective feels that a person's mental abilities, personalities, psychological problems and uniqueness must be attributed to a combination of all of the above perspectives. They feel no one perspective is the sole determinant for one's make up. Instead all of the perspectives: Biological, Cognitive, Behavioral, Humanistic, Psychodynamic, Gestalt and Sociocultural interact and create one's uniqueness. The eclectic perspective stresses that no one type of treatment is best, instead all of the perspectives must be combined for effectiveness.

**Summary of Eclectic Perspective:
Psychologists from this school believe...**

Addiction—Biologically or Behaviorally Caused?

Are drug addiction and abuse inherited diseases? Or are they the result of environmental factors such as upbringing, education, and economic status?

The Biological Element

By: Kevin T. McCauley, M.D.

People often disagree with the idea of calling addiction a disease in the same way we call conditions like diabetes a disease. The behavior of addicts is frustrating, ugly - even criminal. How can driving drunk be a symptom of a disease?

The best argument against calling addiction a disease states that addicts make the choice to use drugs and that their inability to stop is simply immature and irresponsible behavior. Type I Diabetics, for instance, do not have a choice about whether or not to have a high blood sugar. These arguments make sense, and are often embraced for their intuitive appeal alone.

With *brain disorders*, however, it is not that simple.

Our understanding of brain disorders has not kept pace with our understanding of other diseases - like diabetes. A big part of our difficulty in calling addiction a “disease” stems from the fact that no one could ever find the defect in the brain that caused addiction. Without a physical brain defect to point to, addiction never earned the status of “disease” like diabetes did. The addict’s symptoms were assumed to be due to their intrinsic badness – their immaturity, their irresponsibility, or worse.

But guess what? In the last ten years, we have learned a lot more about the brain. We know what the physical defect of addiction is and where in the brain it is. Addiction is a defect in the hedonic system, or the system that perceives pleasure, which is deep in the part of the brain that handles basic survival. Because of this defect, the addict unconsciously thinks of the drug as life itself. A beer is not just a beer anymore – the addict needs the beer to get through life and when the beer is unavailable they *crave* it.

While it is true that the addict may have a choice in whether or not to use drugs, they do not have the choice over whether or not to crave. If craving gets bad enough, even the strongest-willed, most mature and most responsible person will return to using drugs. No brain can ignore that survival imperative.

If you are in medical school and you write, “addiction is not a disease” on one of your exams – you will flunk. In medicine, we now know that the addict’s brain really is different than normal brains, and from a physiologic standpoint we now know *how* it is different. This explains a lot of the symptoms we see in full-blown addiction and helps us develop better, more effective treatments to help the addict recover. It also means that addiction fits the Disease Model of illness as well - if not better - than many other diseases.

Like say, diabetes.

Biological Theories

By: R.J Craig

In the 1950s, the American Medical Association declared alcoholism to be a disease without offering scientific arguments or evident to explain the designation. Other social behaviors also have been considered diseases. For example, in the antebellum South, a runaway slave was considered afflicted with a disease for which the treatment, on return, was lashing. Whether alcoholism is or is not a disease hinges on the definition of alcoholism.

American Psychiatric Association definition: Alcoholism is a disease typified by impaired control over drinking, preoccupation with alcohol, continued use of alcohol in the face of adverse consequences, and distorted thinking.

The essential sign of alcoholism is loss of control, and until the biological mechanism has been discovered that results in loss of control, this will remain a theory and not a fact. The following is evidence for the biological cause of alcoholism:

1. Animal studies demonstrate that a strain of rats can become physically alcohol dependent; their offspring over time and successive generations are born with an apparent predisposition to physical dependence on alcohol

upon exposure. Researchers can also breed a strain of rats that are averse to alcohol. This suggests that physical dependence on alcohol can be genetically transmitted and inherited.

2. In studies of the familial incidence of alcoholism, alcoholics were more likely to have a near relative who was alcoholic than any population of non-alcoholics. From 2% to 50% had fathers who were alcoholics and 5% had mothers who were alcoholics. The rates of sibling alcoholics consistently were higher than all types of other relationships and all types of non-alcoholics. Studies show a persistent low frequency of parental alcoholism in families of non-alcoholics. Alcoholism is more prevalent among near than distant relatives. However, 47% to 82% of alcoholics do not come from families in which one or both parents were alcoholic. These studies demonstrate that alcoholism tends to run in families.
3. In general, identical twins show greater similarities in alcoholism rates than fraternal twins. However, twin studies have not been consistent in determining the relative contribution of genetics and environmental influences.

The Environmental Element **Source: Neuroanthropology.net**

A careful study of the genetic causes of addiction can provide a wealth of knowledge about the subject; however, one must not forget about environmental triggers and experiences. Many social scientists have made the case that social conditions matter, that is to say, that addiction “runs along the fault lines of society.” In an experiment, scientists showed that monkeys who were regularly dominated by other monkeys were much more likely to self-medicate with cocaine than those monkeys at the top of the social ladder. Therefore, they theorized that the “derived stress from being dominated” played a significant role in the likelihood of drug abuse and addiction. In the case of an addict, his constant urge to use could be a direct result of his low status within the social structure. Also, the very fact that he is on the fringes of “accepted society” may actually be both a cause as well as a result of his addiction.

Additionally, a great amount of research has been dedicated to environmental triggers of abusive behavior. In the case of alcoholics, “one of the signs...is a difficulty inhibiting responses for alcohol related stimuli.” For example, even though a recovering alcoholic may have no problem controlling their addiction in the comfort of their own home, the overwhelming urge to use when they walk by a favorite bar may simply be too much for them to handle. The same is also true of addicts to other drugs. The stimuli from a smell, taste or place commonly attributed to an environment of drug use can often set off strong memories of drug abuse for the addict. This process ultimately results in a powerful desire to use, even if they have been away from drugs for a considerable amount of time.

Furthermore, consider the environment in which an addict first experiences the substance(s) they have become addicted to. The use of drugs and alcohol is most certainly a learned behavior, as demonstrated by the cultural emphasis on learning “how” to drink. Therefore, the environment in which a person acquires the knowledge of how to use must be important to the formation of an addiction.

As one website dedicated to the genetics and environmental causes of addiction puts it, “the biggest contributing factor to drug abuse risk is having friends who engage in the problem behavior.” In the case of the addict introduced to the drug earlier in life, it is quite likely that his first experience with drugs occurred with his peers. In this situation, the mutual support of using as a group became a benefit in itself. Also, having friends that use drugs serves as a powerful cultural force for continued experimentation. Thus, the combination of positive reinforcement and a receptive environment for drug use ultimately results in an increased likelihood for addiction.

Behavioral Theories

By: R.J Craig

Learning and conditioning unquestionably play a role in the development of substance abuse. The issue is the degree of importance of these variables in the final pathway to being addicted. Wikler (1973) argues that drug use initially is socially reinforced and that this reinforcement eventually is replaced by biological reinforcement through suppression of withdrawal symptoms. The desire for positive feedback from peers begins to be replaced by using drugs to avoid the punishment (withdrawal symptoms). The following are some of the ways that behavior and reward systems encourage drug use:

Reinforcement theory—Drugs are powerful reinforcers of behavior. Alcohol and drugs produce pleasurable sensations. According to the laws of reinforcement, whenever a stimulus (e.g., using alcohol or drugs) is followed by a reward (e.g., feeling good), that connection is reinforced, increasing the probability of repeating that behavior next time.

Primary reinforcers—food, water, sex—strengthen behavior independently. Secondary reinforcers are learned. Money, for example, has no natural value. It is merely paper or metal. Money has no inherent reinforcing properties. Drugs and alcohol are primary reinforcers.

Negative reinforcers—is a stimulus is followed by a response that is punishing, the probability of that response upon presentation of that stimulus should decrease. This is a principle behind the use of Antabuse. Alcoholics who take Antabuse experience no ill effects. If, however, they drink alcohol when Antabuse is in their system they become violently ill. Thus, alcohol use should decrease in frequency because of the connection between taking alcohol and being negatively reinforced.

Reflect: After the discussions with your group, do you believe drug abuse and addiction is caused by biology or environmental factors? Support your claim with *at least 3 pieces* of evidence from the above readings.

Research Methods in Psychology

Use the information in the text to explain the method, advantages, and disadvantages of the following research methods. You should find many advantages and disadvantages for each method.

Method of

Method of Research	Method	Advantages	Disadvantages
Case Study			
Survey			
Naturalistic Observation			
Correlational Research			
Experiment			



CATEGORIZING RESEARCH STUDIES

Various studies are described briefly below. Your task is to judge the type of design, the data-collection method, and the settings of each study. To do this, read each description carefully and use the following coding system to record your judgements in the blanks to the left of each item.

Design	(E= experiment, C= correlational study, D= descriptive study)
Data-Collection Method	(SR= self-report, O= observational)
Setting	(L= laboratory, F=field)

For those studies with an “E”, UNDERLINE the Independent Variable and CIRCLE the Dependent Variable.

DESIGN DATA SETTING

- _____ 1. Subjects are randomly assigned to watch either a violent or a nonviolent video, then are observed for aggression while playing with a large inflated Bobo doll in the lab.
- _____ 2. The responses of children to a Bobo doll in the lab are observed and the amount of aggression is recorded.
- _____ 3. The relation between birth order and amount of aggression against a Bobo doll in the lab is assessed.
- _____ 4. The relation between birth order and the amount of aggression on the school playground is assessed during recess.
- _____ 5. At a camp, subjects are randomly assigned to watch either a violent or a nonviolent video. Then their level of aggression is monitored at athletic events.
- _____ 6. The amount of aggression on the school playground is observed during recess.
- _____ 7. Subjects are randomly assigned to watch either a violent or nonviolent video in the lab, then complete a questionnaire designed to assess their level of aggression.
- _____ 8. The relation between birth order and level of aggression reported on a questionnaire completed in the lab is assessed.
- _____ 9. Children are interviewed in the lab regarding their opinions about aggression.
- _____ 10. The relation between birth order and a self-report tally of aggressive incidents occurring at home is assessed.
- _____ 11. Children are interviewed for their reaction after seeing a fight on the playground.
- _____ 12. At a camp, subjects are randomly assigned to watch either a violent or a nonviolent video, then their level of aggression is assessed by questionnaire.

Experimental & Confounding Variables Exercise

For each selection identify the independent variable and dependent variable. Then look for one serious confounding variable that threatens the experiment's validity. Last, suggest how the confounding variable could be controlled to "clean up" the study.

Selection One:

Fred Rogers wanted to test a new "sing-a-long" method to teach math to fourth graders (e.g., "I Love to Multiply" to the tune of God Bless America). He used the sing-a-long method in his first period class. His sixth period students continued solving math problems with the old method. The end of the term, Mr. Rogers found that the first period class scored significantly lower than the sixth period class on a math achievement test. He concluded that his sing-a-long method was a total failure.

Define the term independent variable in your own words:

Identify independent variable from the experiment:

Define the term dependent variable in your own words:

Identify the dependent variable from the experiment:

Define the term confounding variable in your own words:

Identify the confounding variable(s) in the experiment:

What is one method to control for the confounding variable(s)?

Selection Two:

Karsh (1983) designed an experiment on the relationships between early handling and friendliness on cats. She randomly assigned kittens to one of three groups, which differed according to the age of first handling. The first group was handled daily from 3 to 14 weeks, the second from 7 to 14 weeks, and the third received no handling from birth to 14 weeks. "Handling" was defined as an experimenter holding a kitten on his or her lap, while petting for 15 minutes. "Friendliness" was measured by how long each kitten stayed with the experimenter when not restrained, and by how long it took each kitten to reach the experimenter. Karsh found that the kittens handled from 3 to 14 weeks stayed longer with the experimenter and ran more quickly to the experimenter than kittens handled from 7 to 14 weeks. Also kittens handled from 7 to 14 weeks were more "friendly" than kittens who received no handling at all. Karsh concluded that kittens should be handled as early as possible, to ensure life-long friendliness toward humans.

Are the researcher's conclusions warranted (yes or no)? _____

Identify the independent variable(s):

Identify the dependent variable(s):

Identify the confounding variable(s):

What is one method to control for the confounding variable(s)?

Selection Three

A drug company developed a new medication to control the manic phase of manic-depression. The firm hired a hospital psychiatrist to test the effectiveness of the drug. He identified the group of manic-phase patients and randomly assigned them to a drug or placebo group. Nurse Ratchet was told to administer the drug, while Nurse Johnson was told to administer the placebo. Each made daily observations of their patients during treatment. A month later the observations were compared: In general, patients in the drug group behaved more “normally” than patients in the placebo group. The drug company publicized the effectiveness of the product and received a million orders for the new drug in a few weeks.

Are the researcher’s conclusions warranted (yes or no)? _____

Identify the independent variable(s):

Identify the dependent variable(s):

Identify the confounding variable(s):

What is one method to control for the confounding variable(s)?

Selection Four

Create an experiment of your own in 5 sentences or less. Then define and identify the following terms.

Experiment:

Define the term control group in your own words:

Identify the control group:

Define the term experimental group in your own words:

Identify the experimental group:

Define the term subjects in your own words:

Identify your subjects:

Define the term correlation in your own words:

Identify a (possible) correlation you are looking for:

The Davidson Clinic Experiment

You are the personnel director of the Davidson Pediatric Clinic, a rather large facility which employs over 50 persons, including pediatricians, nurses, secretaries, receptionists, and housekeeping and maintenance personnel.

At the center of the clinic is a large waiting room where the parents and babies wait to see the doctors. The babies in that waiting room cry so much that many employees are unable to concentrate on their work. As a result, morale among the employees is very low, and several persons have reported headaches and other stress-related symptoms. The executive director of the clinic has come to you with this problem and has asked you to do something about it.

You have observed the interactions among all persons in the waiting room and have determined that the crying almost always begins when the babies first see a nurse. The nurses in the clinic always wear white caps, white uniforms, white hose, and white shoes. You wonder if the sight of a nurse dressed this way is frightening to the babies. Perhaps the babies would cry less at the sight of a woman wearing more colorful clothes. You decide to do an experiment to determine if that is indeed the case.

Identify the problem.

What past research would you want to review?

Formulate the **hypothesis**.

Design your study. Identify the variables in your experiment.

Independent Variable

Dependent Variable

Identify the groups in your experiment.

Experimental Group

Control Group

Correlation or Causation?

The following articles include a variety of research studies and their results. Some of the headlines suggest a causal relationship between two variables, and some simply suggest a correlation between two variables. Unfortunately, the headlines of articles in the popular media misrepresent the research on which they are based.

Working with a partner, determine what the **language** is for a study that is describing a causal relationships versus one that is correlational.

Part 1:

Listed below are sets of two "headlines" for the same study. For each set, circle the one that sounds more causal.

- Suggestive lyrics prompt teens to engage in risky behavior
- Listening to suggestive lyrics is associated with risky teenage behaviors

- Memory retention enhanced by sleep
- People who sleep more, remember more!

- Kids who take music lessons have bigger brains
- Music lessons improve kids' brain development

1. What words or phrases are helpful in identifying causation versus correlation?

Part 2:

1. Before reading your article/s, identify whether the headline/s make either causal or correlational claims. Explain why you think it is causal or correlational.

2. Read the article. Does the research described in the news report adequately support the type of claim (correlational or causal) made in the headline? Using your knowledge about experimental and correlational research, evaluate the headline's claim and the author's evidence.

Fun with M&M's!!

1. Hypothesize what percent of the M&M's of each of the colors – record in the chart below.
2. Obtain a sample of M&M's from the class supply – Do NOT eat the candy yet!
3. Sort your M&M's by color, count how many M&M's you have of each color and enter your data in the chart below. *To calculate the % of each color: divide the number of M&M's of a specific color by the total # of M&M's in your sample and multiply by 100. **ROUND TO THE NEAREST WHOLE NUMBER! (.5 and higher, round up)***
4. Type your group's information on your teacher's computer to display it on the projector.
5. Fill in the chart below with the data from the other groups in your class.
6. Calculate the MEAN, MEDIAN, MODE, and RANGE for each color with the data from the entire class and record on the chart below. Do NOT use your figures from your hypothesis!

	% Brown	% Yellow	% Red	% Blue	% Orange	% Green
Sample Hypothesis						
1. Your Sample						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
MEAN of each color %						
MEDIAN of each color %						
MODE of each color %						
RANGE of each color %						

7. Compare your own sample results to your hypothesized percentages. How do they compare? Be specific.

8. Compare your results with those from the candy company. How do the percentages from **your own sample** compare to the company's reported percentages? Explain

9. How do the **statistical results** from the **entire class** compare to the company's reported percentages? Explain why.

Percentages of M&M's (according to Mars Candy Company)

Brown	Yellow	Red	Blue	Orange	Green
13%	14%	13%	24%	20%	16%

UNETHICAL STUDIES IN PSYCHOLOGY

Project MK-ULTRA: The CIA's Program of Research in Behavioral Modification

From 1953 until the early 1970's, Project MK-ULTRA was the CIA's code name for a mind-control research program run by the Office of Scientific Intelligence. Their purpose was to study mind-control, interrogation methods and behavior modification. In order to manipulate mental states and alter brain function, doctors administered various types of drugs such as LSD, mescaline, heroin, morphine, psilocybin, scopolamine, marijuana, alcohol, and sodium pentothal, usually without the subject's awareness or consent.

Experiments were tested on CIA employees, military personnel, doctors, government agents, prostitutes, members of the public and mentally ill patients.

Research and goals for the project included:

- Substances which would enhance the ability of individuals to withstand privation, torture and coercion during interrogation and so-called "brain-washing".
- Substances which would promote illogical thinking and impulsiveness to the point where the recipient would be discredited in public.
- Materials and physical methods which would produce amnesia for events preceding and during their use.
- Substances which would produce physical disablement such as paralysis of the legs, acute anemia, etc.
- A material which would cause mental confusion of such a type that the individual under its influence would find it difficult to maintain a fabrication under questioning.

In 1964, the project was renamed MK-SEARCH. This project attempted to create a "perfect truth drug" which could then be used to interrogate suspected Soviet spies during the Cold War.

In 1973, CIA Director Richard Helms ordered all MK-ULTRA files be destroyed. A full investigation of MK-ULTRA will therefore never be possible.

The Stanford Prison Experiment

Led by famous psychologist Philip Zimbardo, the Stanford Prison Experiment, conducted in 1971, was executed in order to show how roles define behavior. Zimbardo tried to demonstrate that prison guards and convicts would behave in ways they thought was required. Participants were offered \$15 per day and the study was to last two weeks.

Twenty-four male subjects, considered to be most mentally and emotionally stable, were chosen. Zimbardo divided the participants evenly into guards and prisoners, at random. He himself was going to take on the role of prison warden. The guards were given one rule: no physical punishment allowed, but other than that, they were able to run the prison as they see fit. The guards were outfitted in military attire and sunglasses and also provided batons. The prisoners, in contrast, were dressed in smocks and refused permission to wear underwear.

Prisoners were only to be addressed by their identity numbers and also had a small chain around one ankle. On the first day of the experiment, prisoners were instructed to stay at home and wait to be 'called' for the start of the experiment. Their homes were raided by the real Palo Alto police, they were charged with armed-robbery, read their rights and had their fingerprints and mug shots taken. They were strip-searched and taken to the basement of Stanford: 'the mock prison'.

The guards were brutal, humiliating and demoralizing to the prisoners. By the second day prisoners were already revolting, wanting to be let out. Zimbardo and his colleagues were also beginning to be affected by the experiment, trying to keep the revolting prisoner subjects in detention and siding with guards.

On the sixth day, Christina Maslach, a recent Stanford Ph.D., (also the fiancée of Zimbardo), was brought in to interview the guards and prisoners. She was stunned by what she saw and demanded that the experiment be terminated. Apparently, Maslach was the only person to even raise any concerns out of the fifty external visitors that had come to examine the experiment.

The Monster Study

Dubbed the "monster study," the experiment was conducted by speech expert Wendell Johnson, led in part by graduate student Mary Tudor Jacobs in 1939. Johnson believed that stuttering was a learned behavior, attributed to outside factors such as constant criticism from a parent to its child for even the slightest speech imperfections. 22 orphan children with no prior speech impediment were chosen for the experiment. Wendell's goal was to induce the disorder in orphans.

One group of orphans received praise for positive speech therapy whereas the other group was belittled, badgered and told they were stutterers. By the end of the study, none of the test subjects in the negative therapy group became stutterers, but the experience caused them low self-esteem and irreparable damage.

The Well of Despair

Dr. Harry Harlow was an unsympathetic person, using terms like the “rape rack” and “iron maiden” in his experiments. He is most well-known for the experiments he conducted on rhesus monkeys concerning social isolation. Dr. Harlow took infant rhesus monkeys who had already bonded with their mothers and placed them in a stainless steel vertical chamber device alone with no contact in order to sever those bonds. They were kept in the chambers for up to one year. Many of these monkeys came out of the chamber psychotic, and many did not recover. Dr. Harlow concluded that even a happy, normal childhood was no defense against depression, while science writer Deborah Blum called these “common sense results.”

Little Albert

In order to determine whether fear was innate or a conditioned response, father of behaviorism, John Watson, used a nine month old orphan he nicknamed Little Albert to test his theory. Watson began the experiment by placing Little Albert in the middle of a room. A white laboratory rat was placed near Albert, who was allowed to play with it. Albert was not scared.

For two months he was exposed to various things without any sort of conditioning; a white rabbit, a monkey, masks etc. Watson placed Albert in a room again with the rat, however this time, when Albert would touch the rat, Watson would make loud sounds behind him, such as the striking of a steel bar with a hammer. When this occurred, Albert would get frightened and begin to cry. Watson continued to do this until eventually, Albert became very distressed whenever exposed to the rat. Eventually, Albert associated anything fluffy or white with the loud noise. Little Albert was never desensitized to his fear and was released from the hospital before Watson was able to do so.

Learned Helplessness

In 1965, psychologists Mark Seligman and Steve Maier conducted an experiment in which three groups of dogs were placed in harnesses. Dogs from group one were released after a certain amount of time, with no harm done. Dogs from group two were paired up and leashed together, and one from each pair was given electrical shocks that could be ended by pressing a lever. Dogs from group three were also paired up and leashed together, one receiving shocks, but the shocks didn't end when the lever was pressed. Shocks came randomly and seemed inevitable, which caused “learned helplessness,” the dogs assuming that nothing could be done about the shocks. The dogs in group three ended up displaying symptoms of clinical depression.

Later, group three dogs were placed in a box with by themselves. They were again shocked, but they could easily end the shocks by jumping out of the box. These dogs simply “gave up,” again displaying learned helplessness.

Obedience to Authority

The notorious Milgram Study is one of the most well-known of psychology experiments. Stanley Milgram, a social psychologist at Yale University, wanted to test obedience to authority. He set up an experiment with “teachers” who were the actual participants, and a “learner,” who was an actor. Both the teacher and the learner were told that the study was about memory and learning.

Both the learner and the teacher received slips that they were told were given to them randomly, when in fact, both had been given slips that read “teacher.” The actor claimed to receive a “learner” slip, so the teacher was deceived. Both were separated into separate rooms and could only hear each other. The teacher read a pair of words, following by four possible answers to the question. If the learner was incorrect with his answer, the teacher was to administer a shock with voltage that increased with every wrong answer. If correct, there would be no shock, and the teacher would advance to the next question.

In reality, no one was being shocked. A tape recorder with pre-recorded screams was hooked up to play each time the teacher administered a shock. When the shocks got to a higher voltage, the actor/learner would bang on the wall and ask the teacher to stop. Eventually all screams and banging would stop and silence would ensue. This was the point when many of the teachers exhibited extreme distress and would ask to stop the experiment. Some questioned the experiment, but many were encouraged to go on and told they would not be responsible for any results.

If at any time the subject indicated his desire to halt the experiment, he was told by the experimenter, “Please continue;” “The experiment requires that you continue;” “It is absolutely essential that you continue;” “You have no other choice, you must go on.” If after all four orders the teacher still wished to stop the experiment, it was ended. Only 14 out of 40 teachers halted the experiment before administering a 450 volt shock, though every participant questioned the experiment, and no teacher firmly refused to stop the shocks before 300 volts.