

FACULTY GUIDE

for use with the

Psychology Video Tool Kit

**by
Martin Bolt
Calvin College**

WORTH PUBLISHERS

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by **Martin Bolt, Calvin College**

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Worth Publishers

41 Madison Avenue

New York, NY 10010

www.worthpublishers.com

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An Introduction to Psychological Science

Why Do People Help?: Explaining Behavior

Length: 5:25 minutes

Source: “*Natural Born Heroes*” *Human Instinct* (BBC Motion Gallery)

Relevant Lecture/Textbook Topics:

- ▶ Theoretical Perspectives
- ▶ Research Methodology
- ▶ Social Psychology

Description

A vivid example of human behavior that prompts the question “Why?” can provide an effective introduction to psychology as a discipline.

For example, the terrorist attacks in the United States on September 11, 2001 demonstrated the worst and best of human nature, both human aggression and human helpfulness. The extremes of behavior inevitably raise the question that is central to psychology: Why do people behave as they do? Do we find the causes of behavior in our biology? In our perceptions, thoughts or emotions? In our social-cultural setting?

In this clip, Mike and John, two World Trade Center office workers, risk their lives to help Tina escape from the 68th floor of the north tower. Located just below the point of the aircraft’s impact on the 81st floor, Mike and John could see the horror unfolding around them. They exited by way of the fire escape. As they passed the 68th floor, they could see Tina in a wheelchair through glass doors. Without hesitation they decided to carry her down to safety. On the 18th floor the men declined a fireman’s offer to take Tina. Although falling debris blocked the stairwell and the lights went out, the rescuers continued the difficult path to the street. Tina was driven away in an ambulance just two minutes before the building collapsed.

Ask your students: Why did these two office workers risk their lives to save another person? Do we have a biological instinct to help? Do powerful emotions such as empathy prompt helping? How does the social environment, for example, our parents, our schools, and our communities, foster helping? A biopsychosocial approach recognizes the influences of biological, psychological, and social-cultural factors in explaining behavior.

Interpretive Comments

Contemporary psychology assumes a biopsychosocial approach to human behavior. The biological, psychological, and social-cultural levels of analysis are complementary rather than competing perspectives. Integrating information on biological, psychological, and social-cultural influences provides a more complete understanding of behaviors and mental processes than would be available from any one viewpoint. In answering the why of behavior, psychologists apply the scientific method. To discover cause–effect relationships, psychology conduct experiments.

Discussion Questions

1. What do you think motivated Mike and John to help?
2. Do you believe human nature is basically good or evil?

Schachter's Affiliation Experiment

Length: 7:00 minutes

Source: CRM Films

Relevant Lecture/Textbook Topics:

- ▶ Research Methodology
- ▶ Motivation
- ▶ Social Psychology

Description

Stanley Schachter's study of the need to affiliate provides a very good illustration of psychology's use of the experiment. This clip can be used to introduce the experiment or to provide students with the opportunity to apply what they have learned about experimental design. The program can also be presented in the context of the need to belong.

In the opening clip the investigator introduces himself to a small group of college women who have obviously volunteered to serve as research participants. He explains that as a member of the medical school's department of neurology and psychiatry he is conducting an experiment on the effects of electric shock.

The second clip presents Schachter's experimental manipulation of the independent variable. In one condition, the experimenter tells participants that they will be receiving painful shock. The experimenter displays an ominous looking shock generator and forewarns the women that the shocks will be intense. In the second condition, the same experimenter presents a quite different message to a different group of college women. The shock generator has been removed and the experimenter suggests that the participants will be subjected to very mild shock that will resemble a tickle or a tingle rather than something unpleasant. In summary, the experimental manipulation was designed to create differences in fear.

In the following scene, the experimenter explains that there will be a ten minute delay before the study begins. The participants are told that they can either wait alone in small, comfortable rooms or wait together in a larger classroom. Each participant is then asked to indicate on a questionnaire their preference for waiting alone or with others as well as the intensity of their preference. The responses to the questionnaire represented the experiment's dependent variable.

In the fourth clip, the experimenter debriefs the participants. He explains that the experiment is finished and that no electric shock will be administered. He indicates that he is a social psychologist who is only interested in the responses the participants gave to the questionnaire.

In the final scenes, Stanley Schachter states his experimental hypothesis that people who are anxious or fearful will demonstrate a strong need to affiliate. Moreover, he carefully explains the need for the experiment to test the hypothesis. Many variables impact our everyday behavior. Only the isolation of the critical variables, careful manipulation of these variables under controlled conditions, and measurement of the effects of the manipulation can provide an adequate test of the hypothesis.

Interpretive Comments

Schachter's simple study provides an excellent illustration of experimental design. The independent variable is degree of fear and the dependent variable is the desire to affiliate. In describing Schachter's manipulation you will surely want to add that participants were randomly assigned to the two levels of the independent variable. The study also raises an important question about the ethics of research, specifically the experimenter's use of deception. You will want to note Schachter's research participants are carefully debriefed at the conclusion of the study.

Discussion Questions

1. What are the advantages of the experiment over survey or correlational research? Can you identify the independent and dependent variables in Stanley Schachter's experiment? What are some of limits or disadvantages of the experiment over other research strategies?
2. Is it appropriate for experimenters to deceive research participants? Why or why not?

Ethics in Human Research: Violating One's Privacy?

Length: 7:00 minutes

Source: "Genes" 60 Minutes (CBS News)

Relevant Lecture/Textbook Topics:

- ▶ Ethical Issues in Research
- ▶ The Nature–Nurture Issue

Description

Research with human participants involves important ethical issues. Both the American Psychological Association and the British Psychological Society urge researchers to obtain the informed consent of participants, to treat information about individual participants confidentially, and to protect all those involved in a study from harm and discomfort. In showing this video, ask your students whether they think these guidelines were followed.

This program presents research on the genetic basis for physical disorders. Iceland, a country with a relatively small, isolated population of citizens with a very similar genetic makeup provides an excellent laboratory for study of this important issue. By studying the family histories of those with specific disorders, deCODE, a private Icelandic research firm, hopes to discover the genetic predispositions to a variety of specific illnesses. In order to do this the company has sought access to the medical records of all citizens. These records provide important insights into the lifestyle factors, for example, drug use and sexual habits that may interact with genes to produce a disease. In 1988, Iceland's parliament provided such access. Only those residents who request to be excluded in writing are exempt.

deCODE may market its research databank to others including healthcare organizations that could deny medical coverage to those at high risk for illness. One Icelandic resident who suffers from multiple sclerosis joins a vocal minority who objects to the potential invasion of privacy. She is concerned that members of her family may be denied medical insurance because of their genetic susceptibility to illness. Although deCode aims to protect the confidentiality of individuals, director Kari Stefansson acknowledges that such confidentiality cannot be guaranteed.

Other residents of Iceland are willing to assume the personal risk in order to reap the potential benefits of the research. The program interviews two members of one family with a long history of osteoarthritis. They express their hope that the cause of their family illness will be identified and that future descendants will be spared suffering from the disorder.

A critic in the United States recognizes the important contribution that deCode's efforts can make to promoting human good. At the same time he expresses concern that it fails to show adequate sensitivity to ethics and human rights.

Interpretive Comments

This specific example illustrates how knowledge can be used for good and of evil. Both the American Psychological Association and British Psychological Society have established ethical guidelines for research that urge investigators to (1) obtain the informed consent of potential participants, (2) protect them from harm and discomfort, (3) treat information about participants confidentially, and (4) fully

explain the research afterward. deCODE's effort to identify the genetic predispositions to illness demonstrate the challenge that faces researchers in following these guidelines.

Discussion Questions

1. Would you ask that your medical records be excluded from deCODE's databank? Why or why not?
2. Is increased understanding of human behavior always beneficial? Why or why not?

Neuroscience and Behavior

Neural Communication: Impulse Transmission Across the Synapse

Length: 1:45 minutes

Source: Animated Biomedical Productions

Relevant Lecture/Textbook Topics:

- ▶ Neuroscience

Description

Your classroom discussion of neuroscience and behavior is likely to begin with the consideration of neural communication. Using this animation will help students to understand this basic and important process.

The clip opens with a brief synopsis of the process of neural transmission. The billions of neurons that compose our nervous system communicate with one another through the transmission of electrical signals or impulses. A synaptic gap separates the axon of the message-sending neuron from the dendrite of the receiving neuron. When impulses reach the axon terminal of the message-sending neuron, neurotransmitters are released and cross the synapse to receptor sites on the dendrites of the receiving neuron.

A computer generated-image displays the process. A green ball of light represents the electrical impulse. The impulse travels along the axon until it reaches the terminal and releases neurotransmitters represented by red balls of light. The neurotransmitters cross the synaptic gap and bind to receptor sites on the dendrites of the receiving neuron.

Interpretive Comments

Everything psychological is simultaneous biological. Underlying all our thoughts and actions is the body's information system which is constructed from billions of interconnected cells call neurons. To understand human experience one must first understand how neurons work and communicate. You might note that most of the signals neurons receive are excitatory; some are inhibitory. When excitatory signals minus inhibitory signals exceed a minimum intensity, called the threshold, the combined signals trigger an action potential. The neuron's reaction is an all-or-none response.

Discussion Questions

1. What is the relationship between biology and psychology?
2. What do you think might occur if the transmission of neurotransmitters across the synapse is blocked? What if it is facilitated?

Mapping the Brain Through Electrical Stimulation

Length: 2:40 minutes

Source: “*All in the Mind*” *Brain Story* (BBC Motion Gallery)

Relevant Lecture/Textbook Topics:

- ▶ Neuroscience
- ▶ Thinking
- ▶ Language

Description

Your discussion of brain–mind connections will likely begin with a consideration of the strategies investigators have used to study the brain. Sometimes researchers electrically, chemically, or magnetically stimulate its various parts and note the effects.

In this clip, a young woman undergoes surgery to remove a brain tumor. The surgery is delicate because the tumor is near a region of the brain that controls language. Damage to the region could destroy the patient’s capacity to speak.

To identify the precise areas controlling speech the surgeon electrically stimulates various regions of the patient’s brain. In some cases the patient speaks (counts) clearly and easily. In other cases the electrical stimulation interferes with speech. The surgeon explains that the patient has difficulty transforming thoughts into words when the critical language areas are stimulated.

Electrically stimulating different areas of brain can temporarily shut down complex mental processes. In this way, researchers can establish a brain map and identify the role that different parts of the brain play in human experience and behavior.

Interpretive Comments

Manipulating the brain through electrical stimulation is one of several techniques that researchers have used to study the human brain. The oldest method of study brain–mind connections was to observe the effect of specific brain diseases and injuries. More recently, investigators have recorded the brain’s surface electrical activity and have displayed neural activity with computer-aided brain scans. All these strategies show that specific brain systems serve specific functions.

Discussion Questions

1. What does this research suggest regarding brain structure and function?
2. Why is the neuroscience perspective important in psychology?
3. What are some of the other techniques investigators use to study the brain?

Planning, Life Goals, and the Frontal Lobe

Length: 6:20 minutes

Source: “*First Among Equals*” *Brain Story* (BBC Motion Gallery)

Relevant Lecture/Textbook Topics:

- ▶ Neuroscience
- ▶ Thinking
- ▶ Personality

Description

This case study introduces students to the oldest method of studying mind–brain connections, that is, to observe the effects of specific brain diseases and injuries. The program also highlights the role of the frontal lobes in judgment, planning, and the processing of new memories.

Michael was wounded in combat. He experienced damage to the front of his brain that has transformed him from a bright, assertive young man to someone who has difficulty holding a job and is lacking in social skills. Discharged from the army, Michael now works as a hospital janitor under close supervision. He seems aimless; his life lacks direction.

Researcher Jordan Grafman assesses how the damage to Michael’s frontal lobes has impacted his mental abilities. A gambling task assesses his capacity to weigh the consequences of his actions. The task presents research participants with a string of wins followed by a series of losses. Most players stop before losing all their winnings. Michael does not. Although he offers what seems to be a rational explanation for his continued gambling, it is clear that his everyday behavior is also self-defeating.

Michael’s personal life is marked by an inability to sustain relationships. He has suffered a series of failed marriages which he relates in detail. Each partner seems to have significant problems of her own.

Michael’s injury seems to have destroyed his ability to work towards a long term goal or think through the consequences of his actions. Grafman notes that Michael can perform quite well in well-structured situations. However, as the situation becomes less structured and he must formulate and execute plans, he has difficulty.

Interpretive Comments

The oldest method of studying brain–mind connections is by observing the effects of brain diseases and injuries. Some brain regions perform specific functions. Thus specific changes in the brain produce predictable changes in behavior. Michael’s frontal lobe damage has clearly impacted his judgment and particularly his ability to plan ahead and to consider the consequences of his actions. Research indicates that people with damaged frontal lobes may score high on intelligence tests, have intact memories, and be able to perform basic tasks such as those of a janitor. Still they may be unable to plan ahead in scheduling when those tasks should be performed. Frontal lobe damage may also change personality (as in the famous case of Phineas Gage), impair social relationships, and even destroy one’s moral compass.

Discussion Questions

1. Why is the study of the brain and brain damage important to psychology?
2. What role do the frontal lobes play in behavior?
3. Do you think Michael is responsible for his self-defeating behaviors? Why or why not?

The Split Brain: Lessons on Language, Vision, and Free Will

Length: 6:50 minutes

Source: “*The Final Mystery*” *Brain Story* (BBC Motion Gallery)

Relevant Lecture/Textbook Topics:

- ▶ Neuroscience
- ▶ Thinking

Description

Classroom coverage of the structure and function of the human brain should include some discussion of Michael Gazzaniga’s pioneering research on split brain patients.

Twenty years ago Joe underwent surgery that split his brain. Surgeons severed the corpus callosum, the bundle of fibers connecting the two hemispheres. As a result, information no longer travels from one side of Joe’s brain to the other. He became an important participant in neuroscientist Michael Gazzaniga’s continuing study of hemispheric differences. The video suggests that studying split brain patients such as Joe could provide valuable insights into the source of the illusion of conscious free will.

Gazzaniga tests the linguistic abilities of the right and left hemispheres of Joe’s brain. Words presented on the right side of Joe’s visual field go to his left hemisphere and he calls them out easily. Words flashed on the left side of his visual field go to his right hemisphere and Joe says he sees nothing. Nonetheless, he draws a picture of the word that was presented. Because speech comes from the left hemisphere, Gazzaniga also believes that the left hemisphere may be dominant in generating consciousness.

Joe reports that he feels unchanged by his surgery. If the conscious feeling of self-identity comes from both hemispheres Joe would likely feel quite different. Thus, Gazzaniga’s bold conclusion is that Joe’s inner voice must come from only one side of his brain. Since our inner thoughts are all in words, that voice must come from the left linguistic side.

In another experiment Joe sees two words simultaneously. After seeing the word “hour” in his left visual field and “glass” in his right visual field, Joe draws the picture of an hourglass. Using his left hemisphere, he names the hourglass immediately. However, when asked, he reports only having seen the word glass. When asked why he drew an hourglass, he invents an explanation. Joe seems to have been fooled by his own left hemisphere.

Gazzaniga notes that this tendency to offer after-the-fact explanations for behavior is not unique to split brain patients. Rather it is what we all do as we seek to understand and explain the automatic nature of many of our own behaviors.

Interpretive Comments

We have unified brains with specialized parts. Split-brain research provides the opportunity to review the special functions of the cerebral hemispheres. This program confirms that in most people the left hemisphere is the more verbal; the right hemisphere excels in visual perception and the recognition of emotion. From his research with split brain patients like Joe, Gazzaniga concludes that the conscious left hemisphere is an “interpreter” that instantly constructs theories to explain our behavior. In general, the left hemisphere seems more active when a person deliberates over decisions. Obviously the research with

Joe also highlights a core principle of behavior. Sometime the unconscious brain controls our behavior without our conscious effort or will.

Discussion Questions

1. What does split-brain research reveal regarding the nature of the brain?
2. What are specific functions of each cerebral hemisphere?

Language and Brain Plasticity

Length: 4:00 minutes

Source: *First Among Equals* (BBC Motion Gallery)

Relevant Lecture/Textbook Topics:

- ▶ Thinking
- ▶ Language
- ▶ Neuroscience
- ▶ Brain Plasticity

Description

A century ago scientists believed that language depended on two key areas in the left hemisphere. Wernicke's area was thought to handle word selection and sentence construction, while Broca's area was thought to control the last stage of generating speech sounds. Today we understand that language is far more complex.

The program explores an award-winning nuclear physicist's significant loss in the ability to use language. Researcher Nina Dronkers explains that he has great difficulty understanding anything that is said to him, or what he reads, as well as great difficulty producing language. He can speak but what he says lacks coherence. A brain scan reveals that the physicist has suffered severe damage to his brain including total destruction of Wernicke's area.

Brain scans of patients experiencing various language disorders reveal that they have often experienced damage to the two classic language areas. However, research also reveals a network of many different brain areas that handle specific aspects of language. Dronkers reports that some patients have difficulty naming objects, while others have difficulty understanding grammatical rules. Clearly language is a complex process involving many different brain regions that serve specific functions.

Patients often recover some basic aspects of language such as their capacity to recognize word sounds. This finding suggests that some aspects of language do not require their own specialized brain structure. However, aphasic patients rarely show full recover. Clearly it is difficult for brain areas that have long performed one function to assume a new one.

Interpretive Comments

The study of the brain areas involved in language illustrates how complex abilities result from the intricate coordination of many brain areas. Norman Gershwind explains that words read aloud first register in the visual area. They are then relayed to the angular gyrus which transforms the words into an auditory code that is received and understood in the nearby Wernicke's area. From here the code is sent to Broca's area which controls the motor cortex as it creates the pronounced word. Different forms of aphasia occur depending on what link in this chain is damaged. Damage to Wernicke's area as in the case of the physicist disrupts understanding. Damage to Broca's area disrupts speaking. Damage to the angular gyrus leaves the person unable to read.

Discussion Questions

1. What does this case study teach us regarding the brain's functioning?
2. What is meant by the term "brain plasticity?" What advantages does it provide?

Nature and Nurture

Nature Versus Nurture: Growing Up Apart

Length: 1:48 minutes

Source: *"In the Genes" 48 Hours* (CBS News)

Relevant Lecture/Textbook Topics:

- ▶ Nature–Nurture Issues
- ▶ Development

Description

Psychologists use twin studies to help sort out the relative contributions of nature and nurture to human development.

Jerry and Mark are identical twins who share the same profession, same interests, and even the same mannerisms. As children they watched the same television programs. All of this is surprising because they were separated at birth, were raised by different families, and did not meet until they were age 31.

On meeting for the first time, their physical resemblance is striking. As they spend time together and share their life stories, similarities of behavior also become evident. How they walk and even hold a beer are the same. They learn that they share the same hobby of white-water rafting and even the same occupation.

Why do we have these striking similarities, ask the twins? They conclude it must be the result of shared genes. Indeed, studies of identical twins separated at birth have helped shift scientific thinking toward a greater appreciation of genetic influences. Jerry and Mark are not unique in demonstrating startling similarities of personalities, abilities, interests, and even fears.

Interpretive Comments

The biggest and most persistent issue in psychology concerns the relative contributions of nature and nurture to human behavior. Do we come equipped with our traits or does our environment shape us? Twin studies help researchers tease apart the influences of both heredity and environment. Comparisons of identical twin pairs reared apart are particularly informative. Research has shown rather remarkable similarities in such twins and lends support to the claim that genes influence personality.

As students watch this video they should be aware that some critics remain unconvinced that such case studies establish the importance of genetic influence. They argue that any two strangers who spend considerable time together comparing their behaviors and life histories are likely to discover many coincidental similarities.

Discussion Questions

1. Does nature play a more significant role than nurture in shaping certain human characteristics? If so, which ones?
2. What are some important ways in which both nature and nurture contribute to our development?

The Nature–Nurture Issue

Length: 5:05minutes

Source: *Profile: Steven Pinker* (BBC Motion Gallery)

Relevant Lecture/Textbook Topics:

- ▶ Nature–Nurture Issues
- ▶ The Blank Slate
- ▶ Evolutionary Psychology

Description

In discussing the nature–nurture issue, you will want to include a consideration of the evolutionary perspective. In this video, evolutionary psychologist Steven Pinker challenges the assumption that the human mind is a blank slate.

Pinker argues that, to explain human nature, one must understand how humans evolved. The principle of natural selection determines our deepest strivings, including why we love our children, enjoy sex, and seek to survive. Such strong inclinations are the product of Darwinian evolution. Pinker rejects the notion that at birth our minds are blank slates and that culture shapes our character.

The notion of the blank slate assumes that the mind has no inherent structure and that personality is a product of the environment. Parents and the larger culture shape us through socialization. Richard Dawkins notes that the idea of the blank slate has been influential in the social sciences and has led to neglect of the role of genes in understanding human behavior.

The notion that we are products of nurture rather than nature has been popular for political and moral reasons. If we are born as blank slates, that means we are equal. Pinker explains that the opposite view, that we have innate traits, was horrendously perverted in the late eighteenth and early nineteenth centuries, perhaps most notably in Nazism which assumed some races were superior. Inferior races were to be eliminated.

However, Pinker notes that the blank slate was a driving force in other twentieth century atrocities including the Marxist regimes of Stalin, Mao Tse-Tung, and Pol Pot. China's cultural revolution killed millions in an effort to remold its people. Chairman Mao, who led the revolution, stated that the most beautiful words could be written on a blank sheet of paper. In Cambodia, the Khmer Rouge captured the spirit of the blank slate in its slogan that only the newborn baby is spotless. The notion that the mind is totally malleable, suggests Pinker, opens the door to the practice of totalitarian social engineering. Ironically, Nazism and Marxism share the idea that human nature can be reshaped. Nazism assumes it can be reshaped through biological means, Marxism through social means.

Interpretive Comments

The nature–nurture debate is psychology's biggest and most persistent issue. The ancient Greeks debated this question, as did philosophers in the 1600s. John Locke suggested that the human mind is a blank slate on which experience writes. Descartes counter-argued that some ideas are innate. Today, evolutionary psychology studies how the principles of natural selection have shaped the human mind and behavior. Nature selects behaviors that increase the likelihood of sending one's genes into the future. Contemporary psychology recognizes that we are the product of nature *and* nurture—that is, we are products of both our

genes and our environments. Moreover, they interact. Steven Pinker highlights how the assumptions that we make about human nature can shape important social and political attitudes.

Discussion Questions

1. How might evolutionary psychology's explanations of human behavior shape social and political attitudes?
2. Provide some examples of how both *nature* and *nurture* contribute to specific human behaviors.

The Art of Listening: Males Versus Females

Length: 1:50 minutes

Source: “*Brain Sex*” *Secrets of the Sexes* (BBC Motion Gallery)

Relevant Lecture/Textbook Topics:

- ▶ Gender Differences
- ▶ Neuroscience
- ▶ Nature–Nurture Issues

Description

In discussing gender differences you may want to include this brief program examining sex differences in the human brain and how those differences may be linked to differences in men’s and women’s abilities.

Researcher Steve Gentleman observes that in overall appearance male and females are very similar in their surface structure. Although the male brain tends to be a bit larger than the female brain, this may merely correspond to an average difference in body size. However, suggests Gentleman, some studies indicate that specific areas of the male and female brain are different. For example, two regions that seem to vary are the language processing area and an area of the frontal lobe that is important in visual spatial processing. Do these differences predict gender differences in abilities or behaviors?

Tim is shown listening to “made up” words. Different sounds are delivered to each ear at the same time. Tim reports that he hears only one sound. In contrast, when the sounds are delivered to Clair’s ears she reports hearing both. The narrator explains that since women, such as Clair, use both sides of the brain to process sound they can hear both words. In contrast men use one side of the brain to process sound and thus Tim hears only one word.

Interpretive Comments

In showing this program you will want to highlight the continuing controversy over the relationship between possible brain differences between men and women and their links to behavior. Although research does indicate that average sex differences in the brain exist, the linkage to differences in behavior remains uncertain. Some popular writers have been hasty in assuming that brain differences necessarily explain sex differences in behavior and abilities.

Discussion Questions

1. What are some biological and psychological differences between males and females?
2. Do you think gender differences in behavior are primarily due to nature or nurture? Explain your answer.

The Developing Person

Theory of Mind: Taking the Perspective of Others

Length: 1:40 minutes

Source: “*Will to Win*” *Human Instinct* (BBC Motion Gallery)

Relevant Lecture/Textbook Topics:

- ▶ Development

Description

In discussing Piaget’s theory of cognitive development and particularly his concept of egocentrism, you will want to introduce your students to research on “theory of mind.”

A very simple game of “hide the candy” reveals the inability of very young children to take the perspective of others. An adult hides candy in her left or right fist and the child must guess the location of the candy. Even young children quickly understand the simple challenge and obviously enjoy the game.

However, when it is the children’s turn to hide the candy, they divide into two groups. The older ones can do it but the younger ones just do not get it. The latter simply are unable to imagine what their opponent can and can not see. The young children are hopeless in playing the simple game of deception. For example, one young boy presents the adult with only the fist that contains the candy. Another eats the candy. A third switches the candy from her one fist to the other in view of the adult.

The narrator suggests that seeing into the mind of one’s opponent and thus achieving mastery of the game is a matter of maturation.

Interpretive Comments

The term “theory of mind” refers to people’s ideas about their own and others’ mental states—about their feelings, perceptions, and thoughts, and about the behaviors these might predict. Imagining what another can and can not see requires the ability to take another’s perspective and is essential to playing the simple game of “hide the candy.” Piaget referred to the preoperational child’s difficulty in taking the perspective of another as egocentrism. Being able to take the perspective of another was an important milestone in cognitive development. Our theory of mind also enables us to infer others’ feelings and thereby fosters our capacity for empathy which is important to social and moral development.

Discussion Questions

1. How do the findings with the game of “hide the candy” support Piaget’s claim that a child’s mind is not a miniature model of an adult’s?
2. What implications does a theory of mind have for understanding social and moral development?

Piaget's Conservation-of-Liquid Task

Length: 2:20 minutes

Source: Worth Publishers

Relevant Lecture/Textbook Topics:

- ▶ Development

Description

Your discussion of development will likely include consideration of Piaget's pioneering work. This clip will vividly illustrate mastery of the principle of conservation, an important milestone in the child's cognitive development.

Piaget believed that an important characteristic of concretely operational reasoning is the recognition that properties such as mass, volume, and liquid remain the same despite changes in the form of objects. The clip shows two children, a 5-year-old and a 7-year-old, responding to Piaget's classic conservation-of-liquid task.

In the first segment, the experimenter pours an equal amount of liquid into two identical containers as the child watches. The 5-year-old correctly observes that both containers hold the same amount of liquid even when they are moved about the table. Then the experimenter pours the liquid from one container into a shorter, wider bowl, again as the child watches. This time, when questioned, the child mistakenly indicates that the bowl holds less. When asked why, the child simply responds that "a big cup is shorter than a tall cup."

In the second segment, the 7-year-old confronts the same task. The older child is not fooled by the bowl's shape. Clearly for him, the amount of liquid is "conserved" even though its shape has changed. Moreover, he correctly expresses this principle to the experimenter.

Interpretive Comments

Mastery of the conservation principle is one of the important differences between children at the preoperational stage versus the concrete operational stage of cognitive development. The principle applies to other properties such as mass and number as well as volume. Piaget's emphasis was less on the ages at which children reach milestones than on their sequence. Subsequent research has confirmed that the sequence is pretty much as he described it. Piaget believed that children develop their understandings from their interactions with the world.

Discussion Questions

1. How does this clip illustrate Piaget's claim that a young child's mind is not a miniature model of the adult's?
2. Why is Piaget's research important? How might we utilize his findings in the education of our children?

Do Adolescents Lack Empathy?

Length: 3:20 minutes

Source: *Teen Species: Adults* (BBC Motion Gallery)

Relevant Lecture/Textbook Topics:

- ▶ Development
- ▶ Neuroscience

Description

Discussion of physical development in adolescence may include some reference to the maturation of the brain. This program traces the challenge of interpreting emotion to frontal lobe development.

Researchers at Harvard Medical School have studied the ability of teenagers and adults to read facial expressions of emotion. Adults have no difficulty correctly interpreting the emotions reflected in photographs of faces. Do teens?

Patrick, a 16-year-old, views facial expressions of fear as researchers use functional MRI to view his brain. Patrick reports the faces as reflecting anger, surprise, or sadness. He does not see a single face as showing fear. Indeed, most of the teens studied did not recognize the emotions reflected in other people's facial expressions.

Research has indicated that the brains of teens are not fully mature. The emotional centers of the teen brain light up when they view fear. However, the front of the brain shows little response. In adults the front of the brain lights up. The frontal lobes which control planning, insight, and judgment are still maturing in teens. Researcher Deborah Yurgelun-Todd concludes that, in contrast to adults, teens may respond to fear faces on a gut level rather than with insight.

Interpretive Comments

Research indicates that, until puberty, brain cells increase their connections. Adolescence brings a selective pruning of unused neurons and connections so that neural traffic moves more efficiently. Adolescence is also marked by significant frontal lobe development that lags the emotional limbic system. This may help explain teens' occasional impulsiveness, risky behaviors, and inability to make long-term plans and decisions. Findings suggest that the brain continues maturing until about age 25. Research demonstrating the teen brain's immaturity is one reason the U.S. Supreme Court has recently declared juvenile death penalties unconstitutional.

Discussion Questions

1. What are the implications of this research for understanding adolescents' decision making?
2. To what degree should adolescents be held responsible for delinquent or criminal behavior?
3. At what age should one be declared a "legal adult"?

Sensation and Perception

“Blindsight”: Seeing Without Awareness

Length: 4:00 minutes

Source: “*The Final Mystery*” *Brain Story* (BBC Motion Gallery)

Relevant Lecture/Textbook Topics:

- ▶ Sensation
- ▶ Perception
- ▶ States of Consciousness
- ▶ Neuroscience

Description

This clip is helpful in introducing the phenomenon of parallel processing. Psychologist David Miler explains the two visual systems as “one that gives us our conscious perceptions, and one that guides our actions.” The later he refers to as “the zombie within.” Blindsight, the focus of this clip, is indeed “sight unseen.”

Graham Young’s brain is of special interest to neuroscientists. When Graham was a child, he was hit by a car. As a result of the accident, he lost sight in the right visual field of both eyes.

Twelve years after the accident, while undergoing an eye examination, investigators discovered that Graham can process visual information in both left and right visual fields. However, he is not aware of it. He demonstrates the phenomenon of blindsight.

Graham has experienced damage to his visual cortex. When researcher Lawrence Weiskrantz projects moving lights in his right field of vision, Graham reports he cannot see them. However, he can accurately report the direction in which they are moving. Blindsight, explains Weiskrantz, is the condition in which people can respond to visual events without being aware of them.

Brain scans indicate that when Graham responds to the moving dots without being aware of them, a very primitive visual pathway is active. When he sees them, other brain regions light up. The parts of the brain underlying consciousness and our ability to communicate awareness are different and quite far removed from those that actually receive the sensory information.

Interpretive Comments

Parallel processing refers to the tendency of the human brain to work on many aspects of a problem concurrently. For example, the brain divides a visual scene into subdimensions such as color, movement, depth, and form and works on each aspect simultaneously. We then construct our perceptions by integrating the processing of distant brain areas. Blindsight vividly demonstrates the brain’s two visual systems. More generally, it illustrates that we often know much more than we know we know. Our thinking is partly controlled (reflective, deliberate, and conscious) and partly automatic (impulsive, effortless, and without our awareness). Often we refer to our automatic thinking as intuition.

Discussion Questions

1. How is a computer's processing of information different from that of our brain?
2. Can you provide other examples of how human thinking may be partly controlled (that is, reflective, deliberate, and conscious) and partly automatic (impulsive, effortless, and without our awareness)?

Losing One's Touch: Living Without Proprioception

Length: 3:50 minutes

Source: "A Head Full of Steps" *Dancer's Body* (BBC Motion Gallery)

Relevant Lecture/Textbook Topics:

- ▶ Sensation
- ▶ Perception
- ▶ Neuroscience

Description

Students are familiar with the five senses of vision, hearing, touch, taste, and smell. They may not be familiar with proprioception, often a term used interchangeably with kinesthesia. This program will introduce them to a sense they may take for granted.

The clip features the unusual case of a middle-aged man who, thirty years ago, lost his ability to control bodily movement. He found that he could only guide his motions by looking at his body. He has no sense of touch below the neck and thus lacks awareness of the location of his limbs and their movement. The condition of having no proprioception is extremely rare.

With the help of neurophysiologist Jonathan Cole, the man has learned to regain his mobility. Normally when we stand or move we do not consciously think of where we are in time or space. In this case, the man found that when he deliberately looked at his limbs and willed them to move, he regained control of them. He reports that it took him a long time simply to learn to stand and, even today, it takes a great deal of effort to maintain a single position. The use of mirrors failed to help him. He needs to look directly at his body parts. When he walks, he needs to think about each step he takes. Today he is finally able to close his eyes and freeze his position, something he could not do earlier.

Jonathan Cole explains that normally sensory and motor nerves in the skin, muscles and joints send and receive messages that enable body position and movement. In this man's case the sensory but not the motor nerves have been destroyed. Thus he can send messages but does not receive the feedback that the rest of us do.

Interpretive Comments

Our bodies come equipped with millions of position and motion sensors. They are found in our muscles, tendons, and joints and are continually sending information to our brain. If we bend our arm even slightly, the sensors immediately report it. To shake another's hand, we need to know the current position of our arm and our hand and then be aware of the changing position as we move them. People without the kinesthetic sense often report feeling disembodied as though their body is not real or their own. A companion vestibular sense monitors the head's (and thus entire body's) position and movement. It enables us to maintain our balance and relies on semicircular canals and vestibular sacs in our inner ear.

Discussion Questions

1. What does this case study suggest about the relationship between the various sensory systems?
2. Which of the senses do you think would be most troubling to lose?

Seeing the World Upside Down

Length: 7:00 minutes

Source: “*Are You Superhuman?*” (BBC Motion Gallery)

Relevant Lecture/Textbook Topics:

- ▶ Sensation
- ▶ Perception

Description

Consideration of perceptual interpretation can include the fascinating research on perceptual adaptation, that is, the ability to adjust to an artificially displaced or even inverted visual field.

Tracy, a 29-year-old psychology student from England, will wear glasses that turn the world upside down for one week. Archival footage of psychologists’ past efforts at wearing inverting goggles suggests that researchers have long wondered whether the brain rewires itself so that the inverted world is eventually seen as normal.

Over the week that she wears the distorting glasses, Tracy undergoes a series of tests designed by researcher Oliver Braddick to assess changes in her perceptions as well as her ability to adapt her actions to a distorted world. An important question is whether she will eventually see her visual world as normal.

In viewing the world through Tracy’s glasses, we see that her initial experience is indeed disorienting. As the week progresses, she reports that navigating the upside-down world is getting easier. She pours hot water into a cup and walks more naturally. On the fifth day, Tracy reports having had strange dreams of people she had encountered the previous day. She recognizes them even though they are seen upside down.

Over the seven days, Tracy gradually adapts to her upside down world. It is not always clear to her, however, that she perceives people and objects accurately. Tests indicate that certain abilities, such as moving blocks around on a table top, are much improved. On the other hand, she still has great difficulty picking an object from the investigator’s outstretched hand when it is held in different locations. It would be incorrect to say that Tracy has converted her strange world to a “normal” view. Clearly, an inverted world requires many separate adaptations and, perhaps over time, they would successfully unify. On removing the glasses after seven days, Tracy again reports some disorientation.

Interpretive Comments

Research with distorting goggles demonstrates that perception is an active process in which we organize and interpret sensory data. Research participants who wear goggles that shift the perceived location of objects typically experience some initial disorientation but quickly adapt. (Chicks fitted with distorting lenses do not. They keep pecking where the food seems to be!) Although some have claimed that people adjust by perceptually converting their distorted view to a “normal” view, the findings indicate that in reality they adapt by moving about their environment and thereby learn a new relationship between the perceived and actual location of objects.

Discussion Questions

1. What does this case study teach us about the nature of perception?
2. What are the practical implications of perceptual adaptation?

Visual Attention: Piecing Things Together

Length: 4:00 minutes

Source: *The Mind's Eye* (BBC Motion Gallery)

Relevant Lecture/Textbook Topics:

- ▶ Sensation
- ▶ Perception
- ▶ States of Consciousness

Description

You might introduce perception with the topic of selective attention. At any moment, we focus on only a limited aspect of everything that we experience. Thus people often show a surprising lack of awareness of changes in their visual environment.

Daniel Simons and Chris Chabris of Harvard University conduct an experiment in which research participants approach a counter where a male experimenter hands them a consent form. After they sign and return it to the experimenter, he takes it and ducks behind the counter. A different male experimenter stands up, hands the participants a packet of information, and directs them to a hallway where they are asked a series of questions.

In most cases, the research participants fail to notice the change in experimenters. They report their experience in some detail without any reference to the different men. Even when they are specifically asked if they noticed anything unusual, they report that they did not. When the participants are finally told about the change in experimenters, they express amusement and genuine disbelief.

Why do only a minority of people notice the change? So far research has not answered that question. Daniel Simons speculates that it may reflect an important individual difference variable but it may also be sheer coincidence. That is, at any given time, some people happen to attend to a feature that changes, perhaps an aspect of the experimenters' clothing, while other participants' attention happens to be focused elsewhere.

Interpretive Comments

The demonstration of change blindness provides a vivid illustration of selective attention. We process a very limited aspect of our total experience. Selective perception extends to our other senses. The cocktail party effect refers to our ability to attend to only one voice among many. Of course, some stimuli do attract our attention regardless of our current focus. For example, if another voice at a party speaks our name that voice immediately comes into awareness.

Discussion Questions

1. In what ways might selective attention be beneficial? In what ways might it be detrimental?
2. What individual differences might lead some people to notice changes that others do not?

States of Consciousness

Sleep and Sleeplessness: The Current Scene

Length: 6:00 minutes

Source: “*Sleepless in America*” *Sunday Morning* (CBS News)

Relevant Lecture/Textbook Topics:

- ▶ States of Consciousness
- ▶ Sleep and Sleep Disorders

Description

The functions of sleep and risks that accompany sleep deprivation are the focus of a program that is certain to capture your students’ interest.

Today Americans average only seven hours of sleep each night. In earlier times, they slept nine hours. Sleep researcher David Dinges indicates that, on average, humans need a full eight hours.

Although it is clear that we need sleep, its specific function remains unclear. When people are deprived of sleep, explains Dinges, attention and memory wane. The National Sleep Foundation reports that 42 percent of American adults indicate that they are not getting the amount of sleep that they need. Many are seeking help from sleep disorder clinics throughout the country.

Insomnia is one of the most common sleep disorders. Doctors face a challenge in getting people to recognize that failing to get adequate sleep can be a serious medical condition. Currently sleep researchers are investigating how the lack of sleep may affect our bodies as well as our minds. For example, might inadequate sleep be linked to the current epidemic of obesity and diabetes? One study found that healthy young males who received only four hours of sleep per night for six days were in a pre-diabetic state.

Dinges suggest that there is relentless pressure in industrialized societies to have more people awake more of the time. Thus, sleep researchers also study how to keep people awake. For example, the drug Modafinil works on specific neurotransmitters to fool the brain into a state of wakefulness. The hope is that some day the drug may be used to help shift workers maintain alertness in performing their jobs. The U.S. Army is also studying the effects of Modafinil on helicopter pilots who must maintain wakefulness for long periods of time.

Killer whales are able to sleep with one half of their brain at a time. Researchers study their sleep patterns with the hope that this investigation may provide important insights into human sleep disorders and their possible control.

Interpretive Comments

Although there are individual differences in the need for sleep, most people who are allowed to sleep as long as they want average about 9 hours. Going without sleep impairs concentration, creativity, and communication. It fosters irritability and vulnerability to accidents. Chronic sleep deprivation increases the risk for obesity, hypertension, and memory impairment. At Stanford University, sleep expert William

Dement estimates that 80 percent of students are dangerously sleep deprived. Approximately 10 to 15 percent of adults complain of insomnia. They report persistent problems in falling or staying asleep.

Discussion Questions

1. What accounts for the high level of sleep deprivation among college students?
2. Some people claim to be larks (morning persons). Others say they are owls (evening persons). What advantages or disadvantages might each pattern have in contemporary society?

Hypnosis: An Altered Mental State?

Length: 4:00 minutes

Source: “Hypnosis” *Sunday Morning* (CBS News)

Relevant Lecture/Textbook Topics:

- ▶ States of Consciousness
- ▶ Hypnosis

Description

Class discussion of consciousness and information processing might include a consideration of hypnosis. Your discussion could address the important question of whether hypnosis represents an altered mental state.

This clip explores David Spiegel’s research on hypnosis at Stanford University. Utilizing brain scans, he reports that under hypnotic suggestion research participants may process a black and white stimulus as color.

Although hypnosis is not as magical or dramatic as sometimes portrayed in the popular media, it can produce alternative perceptions through quiet persuasion. Using hypnotic suggestion Spiegel has been able to reduce pain associated with everything from chronic muscle aches to cancer. He has also helped Parkinson’s patients remain calm before surgery. Although hypnosis does not make discomfort disappear, it does help victims of pain to focus their attention elsewhere.

The posthypnotic suggestion that one will not notice pain works only for some people and then temporarily. Helping people to put themselves in a hypnotic state can increase its beneficial effects. A woman who experiences lower jaw pain from clenching her teeth in her sleep reports the strategy as effective.

Not everyone can be hypnotized. Tests can reveal one’s level of suggestibility. The narrator, who reports being skeptical of hypnotic effects, proves susceptible to Spiegel’s suggestion that her one arm will feel heavier and less controllable than the other.

Interpretive Comments

Although hypnosis can contribute to significant pain relief, claims that it can enhance recall of past events seem unfounded. In fact, it may evoke false memories. And although posthypnotic suggestions have helped to alleviate headaches, asthma, and certain skin disorders, they have not been effective in treating addictions.

Psychologists continue to debate whether hypnosis is an altered state of consciousness. As the program reveals, brain scans of hypnotized people told to see things that are not present (such as color) show activity in brain areas that usually light up only when we are sensing real stimuli. Those who reject the idea that hypnosis is an altered state believe that hypnosis is a by-product of normal social and cognitive processes.

Discussion Questions

1. What makes some people more hypnotizable than others? In what other respects might they be different?
2. Why do you think hypnosis contributes to pain relief?

Sleep Terror Disorder

Length: 4:20 minutes

Source: “*Night, Night*” *The Trouble with Sleep* (BBC Motion Gallery)

Relevant Lecture/Textbook Topics:

- ▶ States of Consciousness
- ▶ Sleep Disorders

Description

This video provides a good introduction to the general topic of sleep disorders, especially night terrors and sleepwalking.

Every night, six-year-old Holly’s screams bring her mother to her bedside. An hour after the little girl goes to sleep, her cries signal the onset of a night terror. Although her eyes are open, she remains fast asleep. She will not remember the event in the morning. Holly’s parents describe the experience as predictable yet frightening for them. Holly invariably cries out for them. And although they cuddle and comfort their daughter throughout the experience, she does not seem to know they are there.

Night terrors affect a small percentage of children. Unlike nightmares, they occur during a deep phase of sleep and are not a sign of psychological disturbance or fear. Her father reports that sometimes he and his wife can understand what Holly is saying during the night terror. At other times, she is unintelligible.

Clearly, the parents find their daughter’s sleep disorder to be distressing. Each night, as they wait for their daughter’s cry, they are distracted from their conversation with each other and even from watching TV. They have little time to spend with each other.

An hour after Holly’s night terror, she cries again. However, this time she is awake and eager to get in her parents’ bed. Although both mother and father will try to return their daughter to her own bed, sometimes she ends up in her parents’ bed and remains there for the night. Her parents finally feel they have some time for themselves.

Interpretive Comments

Night terrors and sleepwalking are sleep disorders that occur primarily in childhood and typically disappear by adolescence. A night terror is often accompanied by a blood-curdling scream that brings parents rushing into the child’s bedroom. The dazed and groggy child cannot report what is wrong and generally goes back to sleep more quickly than the parents. Parents who worry about the psychological significance of the episodes probably suffer more than their children, who typically wake up the next morning unaware that anything unusual has happened.

Laboratory studies indicate that these episodes occur in the first deep Stage 4 sleep of the night. They are generally associated with body movements and intense autonomic activation. Brain-wave recordings indicate that both sleepwalkers and night terror victims are moving rapidly back and forth between wakefulness and sleep. In contrast, nightmares, like other dreams, typically occur during early morning REM sleep.

Discussion Questions

1. Have you known anyone who has suffered from sleepwalking or night terrors? What are the dominant characteristics of these disorders?
2. How should parents deal with children who refuse to sleep in their own beds? How should Holly's parents deal with her?

Learning

Pavlov's Discovery of Classical Conditioning

Length: 3:08 minutes

Source: BBC Motion Gallery

Relevant Lecture/Textbook Topics:

- ▶ Learning
- ▶ Therapy

Description

This clip provides a useful introduction to Pavlov's classic work on classical conditioning. In studying salivation in dogs, Pavlov observed that dogs drooled automatically when their tongues touched food. He called the response the salivation reflex.

As the dogs became familiar with the laboratory routine, Pavlov found that they began to salivate before he presented the food. The dogs had learned to anticipate the food. So he constructed screens to obstruct their view. Moreover, before presenting the food, he introduced an unrelated stimulus, for example, a ticking metronome. At first the dog drooled only to the meat. However, after a number of trials, the sound alone triggered salivation. Pavlov called this new response the conditioned reflex. He found that his dogs could be conditioned to produce saliva to a variety of stimuli. Pavlov believed that he had discovered how animals learned.

Interpretive Comments

We learn by association. In classical conditioning, an organism comes to associate stimuli. In this study, the unconditioned stimulus is food, and the unconditioned response is salivation to the food. The conditioned stimulus is a ticking metronome and the conditioned response is salivation to the metronome. Through his work Pavlov demonstrated that a process such as learning can be studied objectively. Pavlov's principles of classical conditioning apply to human behavior. For example, irrational fears can be explained in terms of classical conditioning. Important behavioral techniques to treat emotional disorders also incorporate Pavlov's principles.

Discussion Questions

1. In Pavlov's study, what is the UCS? UCR? CS? CR?
2. Can you provide an example of classical conditioning in human behavior?

Classical Conditioning and the Immune System: Combating Lupus

Length: 3:50 minutes

Source: “*Mind Over Body*” *Horizon* (BBC Motion Gallery)

Relevant Lecture/Textbook Topics:

- ▶ Learning
- ▶ Stress and Health

Description

Classical conditioning principles have wide application to improving human health and well-being. The program provides a vivid example.

The clip presents the case of Merritt, a young girl who suffered lupus. In this illness a person’s immune system becomes overactive and antibodies begin to attack one’s own body and tissues. Powerful steroids prescribed for Merritt’s illness produced troubling side effects.

Merritt’s mother relates her concern over the psychological and physical effects that the steroids were having on her daughter. As a clinical psychologist, she was familiar with Robert Ader’s work with white mice suffering from lupus. Ader had used classical conditioning to teach the mice to suppress their overactive immune systems. After he associated sweetened water with the drug that causes immune suppression, the inert substance alone triggered the conditioned immune response. As a result, the mice survived longer.

Might the same strategy help humans suffering lupus? Merritt had to learn to associate a strong taste or smell with the steroid drug that slowed down her runaway immune system. The conditioning worked. Soon just the taste or smell of the steroid enabled her to reduce her drug dosage.

Merritt’s mother reports that her daughter died in 1995 of a heart attack. However, the conditioning very likely lengthened her life by ten years.

Interpretive Comments

Robert Ader’s study demonstrated the impact of classical conditioning on the immune system. A drug (UCS) elicited immune suppression (UCR). After sweetened water was paired with the drug, the water (CS) alone eventually triggered the immune response (CR). In Merritt’s case, the conditioning followed a similar pattern with a taste or smell rather than sweetened water serving as the CS. The findings raise fascinating questions about possible ways to harness the healing potential of the immune system. Current research seeks to determine whether we can condition the enhancement as well as the suppression of the immune system.

Discussion Questions

1. Identify the UCS, UCR, CS, and CR in Robert Ader’s study of immune suppression.
2. What does this research suggest regarding strategies for promoting our physical health?

Thorndike's Puzzle Box

Length: 2:30 minutes

Source: BBC Motion Gallery

Relevant Lecture/Textbook Topics:

- ▶ Learning

Description

Edward L. Thorndike's work set the stage for B. F. Skinner's important work on operant conditioning. You may want to show this clip to introduce the law of effect and describe its links to Skinner's principle of reinforcement.

Thorndike wondered how a new skill is learned. In attempting to answer that question he constructed puzzle boxes in which cats can only escape by operating latches.

Using its paw to operate the latch, the cat seemed clever in engineering its escape. However, Thorndike did not believe animals understood the consequences of their behavior. The cat's successful actions in escaping the puzzle box seemed to appear by chance. Thorndike used graphs to measure the rate of learning.

A well practiced cat placed in the puzzle box quickly recalls the actions that help it escape to a food reward. Thorndike believed that if an action leads to reward, the action becomes stamped into the mind. He concluded that behavior changes because of its consequences and he called this the law of effect. The law explains how even wild creatures develop new habits.

Interpretive Comments

Thorndike's work with the puzzle box was an important antecedent to Skinner's work on operant conditioning. Thorndike focused on observable behavior and wrote the first dissertation on animal learning. His "law of effect" was influential in the development of Skinner's principle of reinforcement. The idea that behavior is shaped by its consequences has wide application to promoting effective instruction in the classroom, to fostering athletic skills, and to increasing productivity in the workplace.

Discussion Questions

1. How do animals learn new skills?
2. How does human learning compare with that of Thorndike's cats?

B. F. Skinner: A Fresh Appraisal

Length: 3:45 minutes

Source: Davidson Films

Relevant Lecture/Textbook Topics:

- ▶ Learning

Description

B. F. Skinner was modern behaviorism's most influential and controversial figure. He assumed that we are what we do and that psychology should focus on the study of behavior. Archival footage examines Skinner's early laboratory research from which he concluded that the relationship between behavior and environment was best understood in terms of a contingency of reinforcement. The procedure of shaping uses the reinforcement of food to guide a pigeon to ring a bell.

Skinner recognized that the sequence of events in operant conditioning contrasted with Pavlovian or classical conditioning. In Pavlov's study of the salivary response in dogs, a stimulus automatically produced a response. Through its association with food, a metronome eventually elicited salivation. In contrast, Skinner shaped an animal's behavior by following a response (for example, a pigeon's pecking a disc) with a reinforcing stimulus. Classical conditioning was stimulus-response (S-R) psychology; operant conditioning was better conceptualized as response-stimulus (R-S) psychology.

The principles of operant conditioning that were uncovered in the laboratory study of animal behavior have had broad application. Although the focus of Skinner's scientific study was on individuals, his later writings explored how we could restructure human social systems to improve life for ourselves and for the planet Earth. He even applied the principles to himself in designing a home office that maximized his productivity.

Discussion Questions

1. How are classical and operant conditioning similar? How are they different?
2. Why might Skinner's claims be controversial?
3. How might operant conditioning principles be used to foster productivity in the workplace?

Do Video Games Teach People to Be Violent?

Length: 4:30 minutes

Source: “*Grand Theft Auto*” 60 Minutes (CBS News)

Relevant Lecture/Textbook Topics:

- ▶ Learning
- ▶ Development
- ▶ Neuroscience
- ▶ Aggression

Description

The impact of playing violent video games is an issue that could be introduced in the context of several important introductory psychology topics including observational learning, adolescence, and aggression.

Grand Theft Auto, a violent video game, is at the center of a civil lawsuit involving the murder of three men in Fayette, Alabama. The victims, police officers, were killed by 18-year-old Devin Moore who had played Grand Theft Auto regularly for months. The attorney bringing the suit against the makers of the video game claims that Grand Theft Auto taught Devin to commit the murders. Following the game’s script, the young man had shot three officers in the head, grabbed the keys to a police cruiser, and fled. Indeed, after his arrest, Devin claimed that “Life is like a video game, everyone has to die sometime.”

A young law student demonstrates the controversial video game and relates the details of its script. Like millions of other gamers, he claims that he plays the game for fun.

Child psychologist David Walsh has coauthored research that links violent video games to physical aggression. He offers a possible explanation for the association. Pioneering brain research at the National Institutes of Health indicates that the adolescent brain is not fully developed. Thus repeated exposure to violent games has greater impact because the prefrontal cortex that enables impulse control is still under construction during the teen years.

Diminished impulse control becomes a particularly important factor in young men who have additional risks factors for criminal behavior. Walsh acknowledges that not every person who plays violent video games will re-enact the game’s script. Obviously multiple influences shape human behavior including physical aggression.

Interpretive Comments

Studies of the impact of violent video games reveal that they prime aggressive thoughts and increase aggression. In addition, young adolescents who play a lot of these games see the world as more hostile, get into more arguments and fights, and receive lower grades. The repetitive and active participation of game play leads some experts to suggest that violent video games have an even greater impact than watching violent television and movies. The results of the studies also challenge the catharsis hypothesis that we feel better and become less aggressive by venting our emotions.

Discussion Questions

1. Who do you think are most likely to re-enact the scripts of violent video games?
2. What does this research suggest regarding the catharsis hypothesis, that is, that we feel better and become less aggressive if we vent our anger?

Memory

Living Without Memory

Length: 10:00 minutes

Source: *Living without a Memory* (BBC Motion Gallery)

Relevant Lecture/Textbook Topics:

- ▶ Memory

Description

You can introduce the topic of memory with this dramatic case study. It vividly illustrates the significance of memory. We are what we remember. But only when memory fails are we truly aware of its importance.

George can not remember. He suffered a viral infection that caused his brain to become inflamed, a condition called encephalitis. It produced almost immediate memory loss. George reports, “I can’t even remember what it is like to remember.” When he and his wife Val return to a favorite spot that they have visited since their teens, George does not recognize it. And when Val reminds him that they have been married 47 years after being childhood sweethearts, it is clear that George has no recall.

George considers use of a special pager to remind him of everyday tasks. For those suffering from significant memory loss this simple device provides an active prompt for taking medications, keeping scheduled appointments, and preparing meals. George hopes the pager will take some of the pressure off from Val as well as helping him. Val expresses deep sympathy for her husband and hopes the pager restores some of his independence.

The pager is delivered. It will be used to remind George of what clothes to wear, of bills to pay, and of library items to return. Together George and Val learn the simple operation of the device and George happily leaves home with the pager that will remind him what to do. He successfully navigates transactions at the local library.

Val’s deep emotional pain over her husband’s memory loss becomes apparent when the narrator asks what personal message she would want to leave on the pager for George. Through tears she expresses her deep love for her husband and continued commitment to him.

In a final scene George drops letters in a mailbox and expresses “victory” over his illness.

Interpretive Comments

Memory represents our ability to store and retrieve information. We become aware of its importance when it malfunctions. As this program vividly demonstrates, memory binds us to family and friends. To a significant degree, we are what we remember. The case also reminds us that everything psychological is biological. Quite possibly the viral encephalitis that George suffered damaged neural centers enabling storage and retrieval of explicit memories, perhaps the hippocampus, a neural center in the limbic system.

Discussion Questions

1. What role does memory play in our identity and connections to others?
2. What does this case tell us about the mind–brain relationship?

Retrieval: A Journey Into Memory

Length: 7:50 minutes

Source: Xunesis (2005)

Relevant Lecture/Textbook Topics:

- ▶ Memory

Description

Memory is our ability to store and retrieve information. The program shows that we do not retrieve exact copies of our past experience. Daniel Schacter has enumerated a number of important ways in which our memories fail. Bias represents one of the “sins of distortion.”

Nick Breckenridge recalls an important conversation he had with his daughter, Amber who is now missing. The present emptiness in his life produces changes in the memory of his last talk with his daughter. Interspersed with his current viewing of past pictures and letters on a clothesline is the recall of the conversation. It begins as an angry exchange between father and daughter over her abrupt plans to travel and ends as an understanding, mutually supportive dialogue.

In the subsequent scene Daniel Schacter of Harvard University describes the memory distortion that he labels “bias.” Our recall of the past, explains Schacter, can be distorted by our current knowledge, beliefs, and feelings. Research suggests that present feelings about a close relationship impact our recall of the past state of that same relationship. Schacter explains that the current needs of the father may have led him to soften his recall of what he initially remembered as a harsh exchange.

Interpretive Comments

Daniel Schacter has identified “seven sins of memory.” The sins of forgetting include absent-mindedness (inattention to details produces encoding failure), transience (storage decay over time), and blocking (inaccessibility of stored memory illustrated by the tip of the tongue phenomenon). The three sins of distortion include bias (belief-colored recollections), misattribution (confusing the source of information, for example, attributing a statement to the wrong friend), and suggestibility (the lingering effects of misinformation). The sin of intrusion Schacter labels “persistence” and refers to unwanted memories (for example, being haunted by failure on an important exam).

Discussion Questions

1. How did Nick’s memory of his last interaction with his daughter change over time? Why do you think it was distorted?
2. What does this program tell us about the nature of memory?

Creating False Memories: A Laboratory Study

Length: 4:45 minutes

Source: “*False Memories*” *Tomorrow’s World* (BBC Motion Gallery)

Relevant Lecture/Textbook Topics:

- ▶ Memory

Description

Your discussion of memory can begin or end with presentation of current work on memory construction. Before showing this clip, ask your students, “Is it possible you could have a memory of a vivid childhood event, say, a hot-air balloon ride that never occurred?”

Psychologists at Victoria University have demonstrated that false memories can be readily implanted in research participants by showing them digitally altered photographs. In the research, 30 college students view pictures of their childhood in a study that is purportedly about how we reminisce. In fact, the study assesses the fallibility of memory.

When Jessica is first shown a false photograph of a hot-air balloon ride that she presumably had as a child, she reports having no memory of it. However, by the end of the week she believes she had been on such a balloon ride, something that never occurred of course.

Psychologist Maryanne Garry describes the study in detail. Each research participant is presented four photographs from their childhood. In each case, the third photograph, showing the participant with family members in a hot-air balloon, is fake. In the course of the week the participants are interviewed three times about the photographs. By the end of the week, many of the students believe they have been on a hot air balloon ride. Even those who do not remember the ride believe the photo is real.

Over the course of the week the research participants are instructed not to speak to family members about the study. However, they are instructed to think about the photos every night. By the end of the week, many of the students have enriched their recall of the experience with imagined details that surrounded the balloon ride.

The findings suggest that memories are not exact copies of our past experience but reconstructions of our past. Even memories that are vivid, detailed, and of which we are confident are not necessarily accurate. When people are told that their memories of the balloon ride are false, they express surprise and sometimes even fear. We typically have a great deal of faith that our memories are reliable and learning that they are not can be unsettling.

Interpretive Comments

Memories are not exact copies of our past experiences. Rather we reconstruct our memories using both stored and recent information. In the research presented in this clip, memory is totally constructed based on false information (the digitally altered photograph) and, very likely, frequent rehearsal of the nonexistent event (the research participants are instructed to think about the photos every night). It can be very difficult to discern false from true memories because they are equally durable. Thus neither the sincerity nor the longevity of a memory tells us that it is true.

Discussion Questions

1. What does this research tell us about the nature of memory?
2. What implications does research on false memory have for evaluating the accuracy of eyewitness testimony in a court trial?

Thinking, Language, and Intelligence

Problem Solving in Genus *Corvus* (Crows, Ravens, and Magpies)

Length: 1:30 minutes

Source: Behavioral Ecology Research Group, University of Oxford

Relevant Lecture/Textbook Topics:

- ▶ Thinking
- ▶ Animal Intelligence
- ▶ Learning

Description

The program illustrates the strategies animals and humans use in solving problems. It also addresses the question of whether animals think, and more specifically, their capacity for making and using tools.

In this video, birds of the genus *Corvus* (crows, ravens, magpies) confront the challenge of retrieving food from a long glass tube.

As the clip opens, a bird finds two short wires atop a glass tube. The bird uses one of the wires to poke at the food in the bottom of the tube. Animals (as well as humans) often approach problems through trial and error.

After several unsuccessful attempts to secure the food, the bird withdraws the wire from the tube and, with some effort, bends the wire into a small hook. Demonstrating insight the bird returns the hooked wire to the tube and, using it as a tool, successfully lifts the basket of food to the top.

Interpretive Comments

People and animals use a variety of strategies to solve problems. Some are solved through trial and error. Sometimes solutions come as sudden flashes of inspiration that we call insight. Animals display remarkable capacities for thinking. Moreover, they demonstrate a surprising capacity to create and use tools, something that was once thought to be uniquely human.

Discussion Questions

1. How do animals solve problems?
2. Is tool-making unique to humans? What, if any, human capacities are unique?

Teaching Language to Chimpanzees

Length: 4:10 minutes

Source: “*First Among Equals*” *Brain Story* (BBC Motion Gallery)

Relevant Lecture/Textbook Topics:

- ▶ Thinking
- ▶ Language

Description

Most students find the question of animal language to be fascinating, a continuing controversy that you may want introduce in the context of thought, language, and intelligence.

This program suggests that the bonobos (also known as pygmy chimps) at Georgia State University challenge the assumption that language is uniquely human. Because they can not speak, they have been taught to link written symbols with specific words.

One chimpanzee, Panbanisha, began with a few simple symbols that referred to six different foods, a location outdoors, and the simple activity of grooming. The researchers soon added the word “quiet,” a more abstract term. Sue Savage-Rumbaugh describes how Panbanisha spontaneously typed the word “quiet” in response to a rather heated admonition that the trainer had given the chimp.

Panbanisha demonstrates her current mastery of dozens of symbols from “Perrier” through “egg” to “TV.” Most impressive is her mastery of word order. Asked to “give a bite of your hot dog to the doggy,” the chimp follows the instruction precisely. Given the different meanings of the word “dog” her success in following the instruction is quite remarkable. Told “to put the toy snake on your hand,” Panbanisha again succeeds.

Savage-Rumbaugh is convinced that bonobos can understand spoken English as well as a human child. She reports they can comprehend entire dialogues, extensive narratives, and accounts of events that have happened the previous day, provided they are interested.

Interpretive Comments

Whether bonobos such as Panbanisha have demonstrated human language depends on how one defines “language.” If language refers to the ability to acquire a vocabulary and to communicate through a meaningful sequence of symbols, clearly Panbanisha has these capabilities. She is able to use symbols, and she has also mastered word order to decipher the meanings of simple multiword commands. However, humans alone may possess language if “language” refers to the verbal or signed expression of complex grammar. From this program it is not clear that Panbanisha has acquired the rules for distinguishing plural from singular nouns, for marking the tense of verbs, or for marking any words by grammatical class. As Peter Gray concludes, “Apparently, the brain mechanism that makes grammar so easy and natural for human children came about in our evolution sometime after we split off from the line leading to chimpanzees and bonobos.”

Discussion Questions

1. Have you ever felt that an animal was communicating with you?
2. Do you think Panbanisha demonstrates language? Why or why not?
3. What should be the role of animal studies in psychology?

Savant Art Skills: In Autism and Dementia

Length: 5:55 minutes

Source: “It’s All in Your Head” 48 Hours (CBS News)

Relevant Lecture/Textbook Topics:

- ▶ Intelligence

Description

Does intelligence consist of a single ability or of many different abilities? The cases studies in this video may prove helpful in answering that question.

Jonathan’s mother derives enormous satisfaction from her 14-year-old son’s artwork. The young man has impressed professional art circles worldwide and his drawings command up to \$2000 each. Most surprising, Jonathan has autism, a disorder that severely limits his ability to communicate. His mother describes how she went from thinking she had a handicapped child to realizing she had a gifted child. An after school program in which Jonathan participated as a 10-year-old, revealed the depth of his talent and emotion. The drawings provide a window into his world.

Neurologist Bruce Miller marvels at the paradox of deficit and great strength that is sometimes found in those with autism. Jonathan’s drawings seem to be instinctive creations. Obviously, his brain is a beehive of visual activity. In attempting to understand how such remarkable talent emerges, Miller has examined another group of extraordinary and unlikely artists—those suffering Alzheimer’s disease.

Four years ago, 87-year-old Audrey was diagnosed with Alzheimer’s. At the same time, she began to demonstrate unusual artistic talent. Her degenerative disease seemed to unlock an amazing ability to paint, much like a blind person might develop a better sense of smell. Miller has observed a similar creative ability emerge in several patients suffering from dementia.

The left hemisphere of the brain is damaged in those having autism and in those with Alzheimer’s. Somehow the damage on the left side seems to strengthen the right side of the brain, which now expresses itself in a new way, most notably in pictures. Unfortunately, for the Alzheimer’s patient, the period of creativity will be short-lived. Eventually, the disease will ravage the right side of the brain as well.

The remarkable cases of Jonathan and Audrey provide scientists with new insights into how our brains work. They also reveal the significant, although often hidden, potential of human beings.

Interpretive Comments

Savant syndrome is a condition in which a person with otherwise limited in mental ability has an exceptional skill—for example, in computation or drawing, as shown in this video. About 4 in 5 people with this syndrome are males. Many also have autism, a developmental disorder that affects more males than females. The nature of Jonathan’s drawings is especially intriguing because autism is typically marked by deficient communication, poor social interaction, and limited understanding of another person’s state of mind. In addition to illustrating the special strengths of the brain’s right hemisphere, these two cases illustrate how intelligence comes in different packages. Howard Gardner suggests that those with savant syndrome show that we do not have a *single* intelligence but instead we have *multiple* intelligences, each relatively independent of the others.

Discussion Questions

1. What do the two cases shown in this video tell us about the nature of intelligence?
2. What do these cases reveal about the nature of the human brain?
3. In what ways are Jonathan and Audrey similar? In what ways do they differ?

Can Chimpanzees Plan Ahead?

Length: 2:10 minutes

Source: “*First Among Equals*” *Brain Story* (BBC Motion Gallery)

Relevant Lecture/Textbook Topics:

- ▶ Thinking

Description

In presenting this program ask your students, “Do animals think?” Animals’ remarkable cognitive skill is evident in research on the chimp’s capacity to plan ahead. The clip also provides a good introduction to the question of whether animals exhibit the capacity for language.

For the past thirty years researchers at Georgia State University have been studying the mental skills of chimpanzees. Are the animals able to plan ahead?

The maze task assesses the chimpanzee’s ability to look ahead in time. Some have assumed that this capacity is uniquely human. However, given the chimpanzee’s need to locate food and to engage in self-defense, it seems reasonable to believe that the animal engages in planning.

Pansy shows unusual skill in running multiple choice mazes that are new to her. In fact, her performance often surpasses that of humans. She takes few wrong turns and often sees the solution faster than her human counterparts. Pansy’s capacity to see the solution to a maze reflects a very active prefrontal lobe system. The researcher concludes that she is a genius.

The findings indicate that the ability to see possible solutions and to plan before acting is not a uniquely human skill. The researcher suggests that, in addition to planning ahead, chimpanzees are capable of reflecting on the past. The animals’ capacity to do so, however, is more limited than that of humans.

Interpretive Comments

The program indicates that animals have remarkable cognitive capacities. Other lines of research indicate that they also display insight and can form concepts. Chimps learn to use tools and pass their strategies on to others in their group. Some research suggests that chimps even form a theory of mind. They seem capable of self-recognition and of comprehending others’ perceptions. Whether chimps are capable of language is still debated.

Discussion Questions

1. Should psychologists study animals? Why or why not?
2. Do humans demonstrate unique capacities? If so, what are they?

Motivation

Eating and Weight Gain: Genetic Engineering

Length: 3:05 minutes

Source: “*Fatbusters*” *Horizon* (BBC Motion Gallery)

Relevant Lecture/Textbook Topics:

- ▶ Motivation
- ▶ Health
- ▶ Genetics

Description

Although this clip could be used in a variety of contexts within the introductory psychology course (from a discussion of serendipitous research to the controversies surrounding genetic engineering), it relates most directly to determinants of body weight and weight control.

Events in French munitions factories during World I set the stage for discovery of an effective obesity-reducing drug. Factory workers reacted to the explosive DNP that they handled daily with fevers and unexplained weight loss. Careful study indicated that DNP speeds up metabolism so that food is not converted to fat but is burned off as heat. In short, DNP was a potential diet drug that could produce significant weight loss.

However, DNP also proved dangerous because it increases the metabolism of every cell in the body. Thus body temperature quickly rockets out of control. For an obesity treatment to be safe it must work only in selected cells.

Researcher John Clapham knew that the human body contains proteins similar to DNP. More importantly, they work only in selected cells. Clapham surmised that by manipulating these proteins it might be possible to burn off body fat without fatal meltdown. Genetically engineering a mouse having genes for these proteins might achieve this goal. When Clapham inspected his genetic creation, he was surprised to see that the mouse was much skinnier than its natural born sister. Equally surprising was the discovery that the skinny mouse ate 50 percent more than its plump sister. The genetically altered animal could overeat without putting on weight.

Interpretive Comments

This case provides a good example of how researchers sometimes stumble on to new pharmaceuticals, chemical compounds, or inventions by accident. Clearly, eating and body weight have multiple determinants and illustrate the value of a biopsychosocial perspective on behavior. Human bodies regulate weight through food intake, energy output, and basal metabolic rate, that is, the rate of energy expenditure for maintaining basic body functions when the body is at rest. Through genetic engineering Clapham successfully increased metabolic rate in mice and thereby controlled body weight. The implication of this research for the problem of human obesity obviously needs much further exploration.

Discussion Questions

1. How does a biopsychosocial perspective apply to understanding eating behavior and body weight?
2. To what degree is body weight a matter of personal control?
3. If it were possible, should we seek to regulate human body weight through genetic engineering?

Overcoming Anorexia Nervosa

Length: 3:20 minutes

Source: “*Slim Chance*” *48 Hours* (CBS News)

Relevant Lecture/Textbook Topics:

- ▶ Motivation
- ▶ Health
- ▶ Therapy

Description

Discussion of the psychology of hunger can include consideration of the important topic of eating disorders.

David suffers from anorexia nervosa. At his lowest point his diet consisted of carrots and club soda. His weight is down to 105 pounds when he finally arrives at the hospital. Although he should weigh 140, he reports scheming to reach 98 pounds. Video images taken by his wife show him to be extraordinarily thin.

David’s self-perception is distorted; he does not believe that he appears emaciated. And although he recognizes that his thinking is irrational, he seems helpless to break the grip of the disorder. He reports that at home he would dump his yogurt down the kitchen drain in an effort to convince his wife that he had eaten it. In the hospital he describes his internal struggle. If he now fails to gain weight, he is a bad patient. If he does gain, he is a bad anorexic.

Treatment at Somerset hospital includes medication, food, and therapy sessions. In group therapy it is clear that David has a negative body image. At home, Joanne describes her husband as his own worst enemy. She finds David’s continued refusal to eat to be increasingly frustrating and tiring. When the narrator confronts David with the prospect of death from his illness, he acknowledges that possibility, but also makes the bizarre claim that it would provide “some kind of validation.”

After six months of therapy at the hospital David has successfully gained 25 pounds and is preparing to leave treatment. However, he describes his recovery as only beginning.

Interpretive Comments

Multiple factors contribute to anorexia nervosa, an eating disorder in which a normal-weight person diets and becomes 15 percent or more underweight yet still feels fat and continues to starve. Usually the disorder occurs (in contrast to this case) in adolescent females. Cultural pressure to thinness has contributed to the rise in anorexia nervosa among women in Western societies. In addition, low self-esteem (apparent in David’s case) and negative emotions interact with life experiences to produce the disorder. Anorexic patients often seem to come from families who are competitive, protective, and high-achieving. Twin research indicates that eating disorders may have a genetic component.

Discussion Questions

1. What do you think are the underlying causes of David's eating disorder?
2. Why has the incidence of eating disorders increased significantly in the last 50 years? Why are they more common among women than men?

Purging Food

Length: 4:00 minutes

Source: “*Slim Chance*” *48 Hours* (CBS News)

Relevant Lecture/Textbook Topics:

- ▶ Motivation
- ▶ Emotions
- ▶ Stress and Health

Description

This video provides a case study in the causes and treatment of one of the major eating disorders.

Rick, a 38-year-old husband and father of two, suffers from bulimia nervosa. For 15 years, he secretly purged after every meal. His eating disorder can be traced back to being overweight as a child. He was the victim of name-calling in school and the cruel teasing continued into adulthood. At one point, Rick’s co-workers, thinking it was funny, wrapped him from head to toe in packing tape. Instead of reporting them, Rick tried harder to fit in. He learned that purging was an effective way of losing weight and dropped 100 pounds in 10 months.

Eating disorders are closely linked to how people feel about themselves, and especially to the need for self-esteem. However, Rick quickly lost control of his world to his obsession. He experienced seizures, was unable to concentrate, and eventually lost his job. Several years passed before Rick was able to acknowledge that he needed treatment. Because the disorder is typically viewed as a female illness, men may have a particularly difficult time admitting their vulnerability and need for help.

Nearly two years ago Rick finally admitted himself to the eating disorders unit at Somerset Medical Center in New Jersey. After six weeks of treatment, he was doing well enough to be discharged. Although he admits that he still occasionally slips by overeating and purging, he remains hopeful and committed to overcoming his disorder.

Interpretive Comments

Most people who suffer from bulimia nervosa are women in their late teens or early twenties. Those with bulimia have repeated episodes of overeating followed by vomiting (as in Rick’s case), laxative use, fasting, or excessive exercise. In contrast to anorexia nervosa, another common eating disorder, bulimia is marked by weight fluctuations within or above normal ranges, making the disorder easier to hide. The families of bulimia patients tend to have a higher incidence of childhood obesity as well as negative self-evaluations. Both of these factors seem present in Rick’s case.

The biopsychosocial perspective contributes to our understanding of eating disorders. For example, twin studies suggest that genetics influence susceptibility to anorexia and bulimia. In addition, sufferers tend to have low self-esteem. They set extremely high standards, worry about falling short of expectations, and are intensely concerned about how others view them. Finally cultural factors, especially an emphasis on physical appearance that includes a “thin-ideal” and the notion that “fat is bad,” fuel dissatisfaction with one’s body image.

Discussion Questions

1. What is the most important cause of Rick's eating disorder?
2. Why do you think females, in comparison to males, are more vulnerable to eating disorders?
3. Are there important social-cultural determinants involved in eating disorders?

Emotions, Stress, and Health

Emotion = Arousal Plus Interpretation

Length: 3:45 minutes

Source: “*In the Heat of the Moment*” *Brain Story* (BBC Motion Gallery)

Relevant Lecture/Textbook Topics:

- ▶ Emotion

Description

Classroom introduction to emotion will likely include the theories that explain the relationship between its major components. Stanley Schachter and Jerome Singer claim that to experience emotion one must be physiologically aroused and cognitively label the arousal.

The program notes that drugs such as coffee, nicotine, and alcohol change both our brain chemistry and how we feel. Indeed drugs, claims researcher Harriet de Wit, can be used as a tool in studying emotion because they stimulate the limbic system which is normally activated whenever we experience an emotion in everyday life.

In de Wit’s study, research participants are given an amphetamine, a drug that stimulates neural activity. Two of the volunteers are told they have been given an inactive, placebo pill. Two others are informed that they have received a stimulant. If changes in biochemistry are the sole source of our emotional experience, all the participants should experience the same emotion regardless of whether they know they have taken a drug or not.

Thirty minutes into the experiment all the participants experience arousal. Those who know that they received a stimulant are up out their chairs and active. They report positive feelings. In contrast, the unsuspecting subjects are less active and they experience the arousal more negatively. Clearly, the research participants’ expectations shaped their experience and behavior.

Basic physiological responses are only part of our emotional experience, concludes de Wit. Our understanding and interpretation of the situation shape our specific feelings.

Interpretive Comments

Emotion includes (1) physiological arousal, (2) expressive behavior, and (3) conscious experience. Different theories have been proposed to explain the relationship between these components. William James and Carl Lange claimed that we feel emotion after we notice our physiological arousal. Walter Cannon and Philip Bard suggested that we feel emotion at the same time that our bodies respond. Stanley Schachter and Jerome Singer proposed that emotions have two components, physical arousal and a cognitive label. The idea that a stirred-up state can be experienced as different emotions depending on how we interpret and label it has been demonstrated in dozens of studies. Although emotional arousal is not as undifferentiated as two-factor theory implies, arousal from emotions as diverse as anger, fear, and sexual excitement does spill over from one emotion to another.

Discussion Questions

1. What are the three important components of every emotion?
2. Can you give an example from your own experience when you felt physiologically aroused and only later interpreted that arousal?

Emotions and Facial Expression

Length: 3:30 minutes

Source: “*In the Heat of the Moment*” *Brain Story* (BBC Motion Gallery)

Relevant Lecture/Textbook Topics:

- ▶ Emotion
- ▶ Nature–Nurture Issues

Description

Our facial expressions, claims psychologist Paul Ekman, communicate our internal states. They enable others to see what we are feeling. Different expressions communicate different emotions.

Thirty years ago Ekman traveled to New Guinea to study facial expressions of emotion. He went to live in the last stone-age culture on earth. The people he studied had had virtually no contact with the outside world.

Ekman wanted to know whether facial expressions of specific emotions shown by people in the industrialized world were different from those shown by people in New Guinea. Do emotional expressions change as societies develop or are they fixed and universal?

Ekman showed individuals the photographs of various people and asked them to point to the face that was displaying a particular emotion. He also asked them to be actors and to make facial expressions displaying different emotional states. He discovered that the facial expressions of the tribe in New Guinea were the same as those he had found elsewhere. He concluded that these common expressions reflected a simple set of core universal, human emotions.

Interpretive Comments

Although the meaning of gestures varies with culture, many facial expressions of emotion are shared by everyone. The fact that even blind children who have never seen a face demonstrate the same facial expressions of emotions such as joy, sadness, fear, and anger suggest they are fixed and universal. However, cultures differ in the amount of emotional expression they consider acceptable. In cultures that foster individualism (in contrast to collectivism), emotional displays are often intense and prolonged. Charles Darwin speculated that before our ancestors communicated verbally, their ability to use facial expressions to convey greeting, threat, and submission fostered survival.

Discussion Questions

1. How might the evolutionary perspective explain the universality of facial expressions?
2. In what ways does nurture as well as nature shape our expression of emotion?

Selye's Stress Response Studies

Length: 2:52 minutes

Source: Canadian Broadcasting Corporation (CBC) and BBC Motion Gallery

Relevant Lecture/Textbook Topics:

- ▶ Stress and Health
- ▶ Emotion

Description

This clip provides excellent background to Dr. Hans Selye classic work on stress. You can also use the clip to highlight the nature of stress including both its positive and negative effects.

Hans Selye has worked as director of experimental medicine and surgery at the University of Montreal since 1945. The university is a world center for the study of stress.

Selye explains his long involvement in research on stress. He observes that in addition to the symptoms that are unique to each illness, there is a syndrome or set of disease signs common to all illnesses, for example, feeling ill, tired, and appetite loss. Already as a medical student, Selye noted that he observed this syndrome of “just being sick.” Ten years later he published his first manuscript on stress entitled “A Syndrome Produced by Diverse Nocuous Agents.”

Stress plays a role in every disease, argues Selye, because disease places increased demands on the body. In some diseases stress proves to be the decisive factor. When asked about his own personal stress, Selye describes it as the “salt of life.” You need stress, he observes, to make life worthwhile. Stress plays a positive role in life.

People vary in their need, or their tolerance, for stress. For example, Selye notes he has a fairly intense need for work. In fact, he could not exist without it. At the same time, he does not fight for things he cannot win.

Interpretive Comments

Selye is best known for describing the general adaptation syndrome. When we experience a stressful event we first go into an *alarm* state. With our resources mobilized, we are now ready to fight the challenge during the second stage of *resistance*. If the stressor lasts for a prolonged period, it may deplete our body's resources and we experience *exhaustion*.

Discussion Questions

1. How can stress be the “salt of life”?
2. What does Selye's analysis suggest about the relationship between life experiences and our physical well-being?

The Development of Disgust

Length: 5:05 minutes

Source: “*In the Heat of the Moment*” *Brain Story* (BBC Motion Gallery)

Relevant Lecture/Textbook Topics:

- ▶ Emotion

Description

Classroom discussion of specific emotions can be readily extended to the universal emotion of disgust.

Psychologist Paul Rozin, who has studied this specific emotion for two decades, observes that when we are told that something smells disgusting we are curious, approach the substance, and are then typically repulsed by the odor. Rozin has been particularly interested in how our thoughts and emotions become linked as we develop.

Disgust initially seems to involve food. Over time, however, what we find disgusting extends to touching dead things, to blood and gore, and to certain unnatural sexual practices. Even certain people may elicit disgust. What’s the linkage, asks Rozin, between the initial core of disgust, namely food, and all these other things?

Children of different ages react quite differently to a variety of messy foods. At a very early age they show taste preferences. By age 3 or 4, they make a distinction between food and things that should not be eaten. And these judgments are no longer made simply on the basis of taste.

A key landmark in the development of disgust is the acquisition of the concept of contamination. Although both younger and older children react with disgust to a cockroach, as well as to apple juice containing one, only the older children seem to have a concept of contamination. The younger ones drink the juice after the cockroach has been removed whereas the older ones resist.

Rozin maintains that adults’ disgust reactions to a variety of abstract stimuli develop from earlier reactions to something that tastes disgusting. Our reaction begins, says, Rozin, with “I want to get it out of my mouth” and ends with “I want to get it out of my mind, even out of my soul.” In short, disgust of everything offensive reflects our efforts to become better people.

Interpretive Comments

From an evolutionary perspective disgust seems to be a case of survival by aversion. It’s a fear of incorporating an aversive substance into one’s body. Rozin and April Fallon have identified three criteria for membership in the “core disgust club.” It must be something you could eat, something that has or had a life of its own, and something that has the power to make other things disgusting. Disgust has its own unique facial expression in which the nose wrinkles with a constriction of the nostrils, and the mouth opens with the tongue pushed forward as if to force the offending substance out. Interest in the study of disgust has grown in popularity as brain-imaging research has uncovered that certain parts of the brain are activated when people are disgusted.

Discussion Questions

1. What do you find to be most disgusting?
2. Can you describe what characterizes the facial expression of disgust?

Personality

Personality Structure: Id, Ego, and Superego

Length: 5:30 minutes

Source: “*Freud: The Hidden Nature of Man*” (The Phoenix Learning Group Inc.)

Relevant Lecture/Textbook Topics:

- ▶ Personality

Description

Sigmund Freud provided the first comprehensive view of personality. This clip provides an intriguing overview of the three interacting systems in personality: the id, the ego, and the superego. By vividly highlighting the conflict between our biological impulses and internalized social restraints, the program provides a good introduction to the theory of psychoanalysis.

Sigmund Freud describes his theory of personality structure. The conscious self that attempts to deal with the outside world of reality he calls the ego. But ego is not the master of self, claims Freud, because we are “constantly bedeviled by powerful unconscious forces.” Id reflects all that is primitive and infantile; it represents the blind instincts of sexual desire and aggression within us. Id is opposed by superego which is rigid, punishing, and repressive. The superego reflects the moral restrictions we have inherited from our parents and from our society.

The three elements of personality are illustrated in David’s interactions with his employer who challenges the way he has handled a client. Although David’s responses to his employer seem rational and calm, the inner voices of id and superego reflect strongly conflicting forces. Id expresses strongly hostile feelings, while superego voices respect.

David’s hostility toward his employer is based on unconscious hatred of his father caused by childhood jealousy and the Oedipus Complex (a very young boy’s sexual desires for his mother and feelings of jealous hatred toward his father). Without insight into these dark forces, claims Freud, we are doomed to play out our lives in an endless dramatization of our childhood relationships with our parents.

In a second scenario, the same conflicting forces are apparent in David’s interactions with his girlfriend Peggy. In this case the strong sexual attraction he feels toward Peggy reflects the unconscious sexual attraction he felt at a very early age toward his mother. This id impulse is in sharp conflict with superego’s moral restrictions on the expression of the sexual drive.

Ego’s task is to meet the conflicting demands of id, ego, and reality and still preserve its own identity. Freud concludes that the struggle between id and superego can be the source of our growth only if we recognize the unconscious forces within us.

Interpretive Comments

Sigmund Freud was a physician who specialized in nervous disorders. His inability to explain his patients’ symptoms in terms of physical causes led to his view of personality. His theory of psychoanalysis focused attention on the conflict between biological impulses and social restraints, and

included ideas about an unconscious region of the mind, psychosexual stages, and defense mechanisms to reduce anxiety. Freud has profoundly influenced Western culture.

Discussion Questions

1. Do you find Freud's theory of personality structure to be helpful? Why or why not?
2. Why is a strong ego necessary in personality? What kinds of problems might a person experience if he or she were dominated by either the id or the superego?

Personality and the Brain

Length: 5:30 minutes

Source: “*All in the Mind*” *Brain Story* (BBC Motion Gallery)

Relevant Lecture/Textbook Topics:

- ▶ Personality
- ▶ Neuroscience

Description

The impact of biology on personality is clearly evident in this case study. The example of degenerative brain disease also revisits the mind–brain relationship and illustrates the general principle that everything psychological is biological.

Over the past eight years Dick’s personality has changed dramatically. His wife reports that Dick is less aware of the impact his behavior has on others, shows less empathy, and become agitated when things fail to go his way. She also notes that she and her husband can no longer watch a film together on television because he can not follow the plot.

Dick has been diagnosed with a degenerative brain disease that is slowly destroying the front of his brain. Although he is aware that doctors anticipate that his condition will worsen, he seems largely oblivious to the changes in his own personality. He is grateful that the degenerative process is occurring more slowly than the doctors predicted.

The frontal lobes underlie our individual differences. They are responsible for our temperament, our social interaction, and our personal style. Dick’s wife relates how brain damage is changing his personality and behavior. At the same time, she reports, he does not seem to care that his behavior is often socially unacceptable.

Surprisingly Dick’s frontal lobe damage has released abilities that he did not know he possessed. His disease has been accompanied by an overwhelming urge to paint. He expresses both surprise and pleasure in this new interest. Sadly, as his brain continues to deteriorate, this new skill will also fade.

The brain may consist of a number of interactive modules with some modules suppressing or inhibiting the functions of others. Thus, destruction of an inhibitory module may improve the function of another.

Interpretive Comments

Brain imaging procedures are exploring a growing list of traits and mental states including impulsivity, empathy, and aggressiveness. Biological underpinnings of personality are highlighted in research that suggests extraverts may seek stimulation because their normal brain arousal is relatively low. Biological influence is also clearly evident in the impact of genetic influence on temperament. Phineas Gage, of course, provides the classic case study of how frontal lobe damage may alter personality. The friendly, soft-spoken Gage become irritable, profane, and dishonest as a result of his accident.

Discussion Questions

1. Are our personality traits fixed or can we change?
2. What does this case suggest regarding brain–mind connections?
3. How do families and society best care for people like Dick who are suffering degenerative brain disease?

A Happiness Trait?

Length: 2:00 minutes

Source: “*Designer Babies*” *Horizon* (BBC Motion Gallery)

Relevant Lecture/Textbook Topics:

- ▶ Personality
- ▶ Emotion
- ▶ Nature–Nurture Issues

Description

The clip provides a good introduction to trait theories of personality including a discussion of the heritability and stability of the Big Five. You could also use this program in discussing the genetic contribution to happiness.

Researcher Dean Hamer has discovered a gene that affects mood. The gene operates like Prozac. People with a long version of the gene seem to have been on Prozac all their lives while those with the short version of the same gene seem never to have had it.

Hamer has researched the impact this gene has on personality. In studying hundreds of individuals, he has found that the gene is strongly related to neuroticism. Those with the long version of the gene are low in neuroticism. They feel good about themselves and optimistic about the future. Those with the short version of the gene are more depressed, worried, and pessimistic about the future. The presence or absence of a gene seems to profoundly affect personality.

Hamer concludes that we are still a long way from genetically designing happy children. Probably many genes contribute to happiness.

Interpretive Comments

Trait theorists attempt to describe personality in terms of stable and enduring behavior patterns, or predispositions to feel and act. Neuroticism (emotional stability versus instability) is one of the Big Five personality factors. One end of the neuroticism dimension is marked by the predisposition to be calm, secure, and self-satisfied while the other end of the continuum reflects the tendency to be anxious, insecure, and self-pitying. The other four personality factors are conscientiousness, agreeableness, openness, and extraversion. Research suggests that these traits are substantially heritable, appear in all cultures, are stable in adulthood, and are good predictors of other personal attributes. Locating a person on these five dimensions currently offers the most comprehensive view of personality.

Discussion Questions

1. What makes us happy? Do people have a genetically determined “set point” for happiness?
2. Do you believe personality is primarily a product of nature or nurture?

Psychological Disorders

Experiencing Anxiety

Length: 1:14 minutes

Source: “Phobias...Overcoming the Fear,” 1991 Madriguera Connecticut Public Television

Relevant Lecture/Textbook Topics:

- ▶ Psychological Disorders

Description

Cases studies are an effective way to introduce the psychological disorders. This specific case is useful in presenting the symptoms of an anxiety disorder.

Julio, a young man, describes his fear of dying, possibly from brain cancer. He explains how two of his friends had recently died at an early age of cancer. In addition, his schoolwork and involvement in fund raising for an organization proved stressful and fostered feelings of anxiety.

Julio describes awakening during the night with distressing thoughts of suffering from brain cancer. He experienced physical symptoms such as cold sweats and developed a fear of darkness. At his girlfriend’s place he was nervous and edgy. Nancy, his girlfriend, describes Julio’s anxiety attack and near fainting which finally led to his hospitalization.

Interpretive Comments

Although we all experience anxiety, it becomes a disorder when it become distressing, persistent, or is characterized by maladaptive behaviors intended to reduce it. In addition to being tense, apprehensive, and in a state of autonomic nervous system arousal, Eric seems to have phobias of dying and of darkness. His anxiety sometimes escalates into panic attacks—minutes-long episodes of intense fear that something awful is about to happen. Specific stresses in his life including the deaths of two friends, schoolwork, and heavy involvement in fundraising seem to have contributed to his high level of anxiety.

Discussion Questions

1. At what point does anxiety become a psychological disorder demanding treatment?
2. Do you think Julio would have developed an anxiety disorder if he had not had two friends die of cancer?

Postpartum Psychosis: The Case of Andrea Yates

Length: 7:00 minutes

Source: “*Why Did She Do It?*” *60 Minutes* (CBS News)

Relevant Lecture/Textbook Topics:

- ▶ Psychological Disorders
- ▶ Therapy

Description

The well-known case of Andrea Yates can be used not only to introduce mood disorders and their treatment but also to discuss the important issue of legal insanity and criminal responsibility. Whom should we hold responsible? Andrea’s legal defense raises important questions about how society should treat people who have disorders and have committed crimes.

The program opens with home video footage of a happy Andrea Yates who has just given birth to her fifth child, Mary. Only seven months later, she would murder all her children. Her husband, Rusty, describes his wife as a loving mother who cared deeply for her children and who would never have hurt them. He explains her actions as the product of a “sick mind.”

Although Andrea never gave any indication that she would hurt her children, after her arrest she reported to authorities that she had been hearing voices that the devil was after her children and that she needed to save them. The murders occurred on a June morning after her husband had left for work. About 10 AM, Andrea called him to tell him that he needed to come home. She had drowned the children in the bathtub and then called 911.

Andrea’s problem began two years earlier after the birth of her fourth son, Luke. Twice she threatened suicide. She was hospitalized with the diagnosis of postpartum depression with psychosis, sometimes also called postpartum psychosis. Although many new mothers experience the “baby blues” and some experience postpartum depression, the disorder of postpartum psychosis is extraordinarily severe and affects less than one percent of women. Some with postpartum psychosis may either kill themselves or their children.

Treated with medication after the birth of her fourth child, Andrea’s symptoms lifted almost immediately. She returned home and again seemed happily devoted to raising her children. She home-schooled her older sons and cooked and cleaned the house. She ignored recommendations to get household help. For more than a year after her hospitalization, life was normal in the Yates household.

In spite of a doctor’s warning that Andrea might again be susceptible to the symptoms of postpartum depression and psychosis, the Yates decided to have another child. Rusty explains that the forewarning of new symptoms had been accompanied by the assurance that treatment would again be effective. Months after the birth of Mary, Andrea’s symptoms returned with a vengeance and severity that, Rusty concludes, killed the children.

Interpretive Comments

Andrea Yates was tried twice. In first trial, the jury rejected her insanity defense and she was sentenced to serve life in a psychiatric prison. In January 2005, a Texas Appeals Court overturned her conviction

because a psychiatrist for the prosecution had falsely testified that he had consulted for a *Law and Order* episode. The Appeals Court state that the false testimony may have contributed to the jury's rejection of Yates' insanity defense. Retried in the summer of 2006, Yates again entered a plea of not guilty by reason of insanity. On July 26, a jury acquitted her by reason of insanity and she was sent to a hospital. She could be released if found mentally competent and no longer a danger to herself or others.

Discussion Questions

1. What do you think were the causes of Andrea's actions?
2. Was Andrea responsible for the killing of her children? Why or why not?
3. How should society determine whether disturbed persons who commit crimes should be punished or provided therapy?

Obsessive-Compulsive Disorder: A Young Mother's Struggle

Length: 7:15 minutes

Source: "Who's Normal Anyway?" *Obsessions* (BBC Motion Gallery)

Relevant Lecture/Textbook Topics:

- ▶ Psychological Disorders

Description

Case studies provide a useful way to introduce students to the topic of psychological disorders.

Stephanie's obsessions center on her young son Jake. Fearing that someone may kidnap him, she keeps him under constant observation even when she is traveling in the car with him. At home behind locked doors, the fear persists. She goes through an elaborate ritual to protect Jake.

Although Stephanie knows her thoughts are irrational, they are uncontrollable. Her desperate efforts to keep her son safe make life difficult. A stroller ride down the sidewalk illustrates Stephanie's obsession. She stares at Jake continuously. Passersby pose a special threat. If they don't kidnap him, they may still contaminate him.

Stephanie carefully navigates Jake's stroller around any potentially contaminating objects on the sidewalk such as cigarettes.

Before her son was born, Stephanie was diagnosed as having OCD (obsessive-compulsive disorder). Now her fear of contaminating Jake leads to compulsive rituals that help her to manage her anxiety. She needs to scour her hands before touching him. She demonstrates the torturous, complex procedure that she goes through in laboriously washing each finger. After touching the garbage can, she feels compelled to repeat the process.

Stephanie's husband describes how his wife's obsessions have become uncontrollable since the birth of their son. Stephanie is highly motivated and eager to begin treatment because she knows that her disorder is harming her son.

Interpretive Comments

OCD is one of the major anxiety disorders. It is clear that Stephanie's obsessive thoughts and compulsive behaviors that center on the safety of her son are interfering with her everyday functioning and are causing her significant distress. Psychologists have applied both learning and biological perspectives to an understanding of the anxiety disorders. Certain behaviors such as checking door locks may relieve feelings of uneasiness so we may check them again when the feelings return. The biological perspective also contributes to our understanding of anxiety disorders. Brain scans of people with OCD reveal elevated activity in specific brain areas associated with behaviors such as checking, ordering, hoarding, and even hand washing. The anterior cingulate cortex seems to be especially likely to be hyperactive in those with OCD.

Discussion Questions

1. What are the defining features of a psychological disorder?
2. What are possible causes of Stephanie's obsessive-compulsive disorder?

Therapy

Treating OCD: Exposure and Response Prevention

Length: 7:15 minutes

Source: “*Who’s Normal Anyway?*” *Obsessions* (BBC Motion Gallery)

Relevant Lecture/Textbook Topics:

- ▶ Therapy

Description

This program continues the case of Stephanie who is suffering OCD and introduces one of the major forms of psychotherapy.

Stephanie’s entire house is subject to a decontamination ritual that is as compulsive as the one she applies to herself.

Stephanie’s treatment began with medication but it has not alleviated her obsessions. A clinician comes to begin cognitive-behavioral therapy. Under the therapist’s guidance Stephanie retrieves mail from the box on her front porch, something that she has not done for a year. The doctor asks her to assess how anxious she feels. Stephanie fears contamination from the envelopes that someone else has licked to close.

The therapist’s goal is to expose Stephanie to the situations that elicit her anxiety but then prevent her from practicing the compulsive cleaning rituals that have helped her contain it. With the continuous support and encouragement of the therapist Stephanie opens a letter. She now feels contaminated and her distress is obvious. Although she could not now touch her son Jake, she is able to touch the back of the couch.

The therapist explains to Stephanie that the exposure therapy helps her to experience the feared things that she has been avoiding. Again with support, Stephanie spreads the germs from the letter all around the couch. Rather surprisingly she now wants also to approach Jake. Although she experiences strong conflict, she picks up Jake and places him on the couch.

After nine therapy sessions, Stephanie is much improved. On an outdoor walk she allows Jake to explore the environment freely. She expresses relief but is in some conflict over whether she is totally free of obsessions and compulsions.

Interpretive Comments

Cognitive-behavioral therapy attempts to alter both the way people think (cognitive therapy) and the way they act (behavioral therapy). Stephanie’s therapist is clearly using exposure therapy, a classical conditioning strategy, to help her overcome her OCD. By helping her experience the feared things she has been avoiding (touching the couch and eventually Jake) she becomes less anxiously responsive to what formerly terrified her.

Discussion Questions

1. How do the basic principles of conditioning explain the effectiveness of Stephanie's therapy?
2. What might be other effective ways of treating Stephanie's OCD?

Early Treatment of Mental Disorders

Length: 5:01 minutes

Source: National Library of Medicine

Relevant Lecture/Textbook Topics:

- ▶ Therapy
- ▶ History of Psychology

Description

During the first half of the twentieth century, mental hospitals used a variety of medical procedures to treat severe mental disorders. These therapies were often crude, ineffective, and sometimes unintentionally cruel.

In hydrotherapy, patients were sprayed with water in order to stimulate them. Another therapy, the wet-pack, involved wrapping patients in wet sheets. In the continuous bath, water was kept at 98 degrees to sedate patients. Hot boxes and hot lamps were also used in the effort to help patients to relax.

Insulin therapy, a predecessor of electroconvulsive therapy (ECT), was less effective as well as more dangerous than ECT. Used primarily in the treatment of schizophrenia, insulin injections caused blood sugar to drop, the patient to slip into a coma and, most importantly, to experience a convulsive reaction. It also produced wet shock marked by excessive sweating and drooling. Dry shock, yet another reaction to insulin therapy, involved a full brain seizure. Therapists administered glucose to bring patients out of the coma. Prior to the use of ECT, another therapy utilized injections of metrazol to produce a grand mal type seizure.

Finally, the lobotomy was among the most notorious of early procedures used to treat mental disorders. Surgeons severed the connections between the cortex of the frontal lobes and the lower centers of the brain.

Interpretive Comments

Prior to the twentieth century treatment of psychological disorder could be even more brutal than the methods shown in this program. These techniques included cuttings hole in the head, restraining, bleeding, and “beating the devil” out of people. These early strategies for treating severe psychological disorders as well as those presented in this program have been largely replaced by drug therapies. In addition, electroconvulsive therapy is utilized in the treatment of severe depression, and, as a last resort, certain forms of psychosurgery are used. Clearly this program highlights the need for careful scientific testing of intervention strategies to determine their effectiveness before widespread use.

Discussion Questions

1. What did these early treatments assume about the causes of psychological disorder?
2. Under what conditions should we implement new treatments for psychological disorders?

City of Gheel: Community Mental Health at Its Best

Length: 7:15 minutes

Source: “*All in the Family*” *60 Minutes* (CBS News)

Relevant Lecture/Textbook Topics:

- ▶ Therapy

Description

Describing the community therapy practiced in Gheel, Belgium provides an excellent extension of family and group therapy typically covered in introductory psychology textbooks. Just as social and cultural circumstances may contribute to psychological disorder, communities may also be part of the solution.

In the city of Gheel, Belgium psychiatric patients are cared for by local families. Careful screening at a psychiatric hospital excludes dangerous patients and pedophiles from placement in the program. Once patients are placed, a psychiatric nurse and psychologist monitor their relationship with the foster families. Over time, reports the visiting nurse, patients improve as they discover their specific roles within the families.

For 45 years, Jeff and Clara have lived together as brother and sister. Although Clara was originally a patient who joined Jeff’s family, today they provide each other companionship and support. The same mutual support is apparent in the lives of three elderly women who call themselves the “Three Musketeers.” They share household chores, go out together, and seem inseparable. Medication of patients is often reduced as they become acclimated to family life.

Patients often live for decades within the family setting. Although the care-giving families are paid for each troubled person that they accept, clearly the care they provide is more than a business. Typically the newcomers become accepted members of the family. For example, Mark a 32-year old male diagnosed with schizophrenia is flourishing. He maintains contact with his biological family but reports that he feels more secure with his foster family.

The director of the psychiatric hospital that oversees the family care program reports that on occasion patients experience a crisis and are temporarily hospitalized. Once they stabilize they return to their families. Patients removed from their families even temporarily feel that it is a punishment. Many of them participate in a jobs program run by the hospital.

Dr. Matthew Dumont, a Boston psychiatrist, reflects on the strength of the Gheel family-care program. Not only the families, he observes, but the entire community accepts and embraces the psychiatric patients, a population that is typically marginalized in other parts of the world. Gheel is a community defined by its inclusiveness.

Interpretive Comments

The biopsychosocial approach recognizes that psychological disorders may be the result of a growth-blocking difficulty in the person’s environment. Evidence of environmental effects come from links between certain specific disorders and culture. Potentially, environments can also prove therapeutic and growth-enhancing. Gheel’s program provides both strong family and community support to those

suffering psychological disorder. False labeling and stereotyping seems to have been avoided as those with a history of psychological disorder have been integrated into all aspects of community life.

Discussion Questions

1. What are the important elements in Gheel's approach to treatment of those suffering from psychological disorder?
2. Would Gheel's approach work in your community? Why or why not?
3. What are the advantages and risks of the Gheel program?

Social Psychology

The Stanford Prison Study: The Power of the Situation

Length: 14:00 minutes

Source: “*The Stanford Prison Experiment*” (BBC Motion Gallery)

Relevant Lecture/Textbook Topics:

- ▶ Social Psychology
- ▶ Ethical Issues in Research

Description

Research in social psychology highlights the power of situations to shape behavior. Zimbardo’s famous study of prison life introduces students to this important principle.

In his study, psychologist Philip Zimbardo sought to determine whether external situations or inner traits are more powerful determinants of human behavior.

Research participants, paid \$15 per day for the anticipated two-week study, are randomly assigned to play the roles of prisoners or guards. Psychological testing indicated none of the participants suffered from psychological disorder. Stripped, deloused, and blindfolded, the prisoners are ushered into their barren cells. To foster a sense of power, the guards are dressed in military uniforms and silver reflecting sunglasses.

The first day passes uneventfully as prisoners and guards are not yet into their roles. However, on the second day, the prisoners curse the guards and openly rebel. Responding to this challenge to their authority, the guards use sheer power to enforce compliance to prison rules. They became arbitrary, even inventive in their use of punishment. They awaken the prisoners in the middle of the night and force them to clean toilets with their bare hands. Overcome by the harsh treatment, Prisoner 8612 asks to be released. Zimbardo who serves as prison warden initially denies the request. However, when the prisoner becomes increasingly disturbed, Zimbardo releases him.

Throughout the program, former guards and prisoners reflect on their experience. One guard notes how little support the prisoners offered each another. When Prisoner 819 expresses his desire to leave, his fellow inmates derogue him. By the time replacement prisoner 416 joins the group at midweek, the guards and prisoners have fallen into their respective roles of dominance and submission. Although the guards vary in their treatment of the prisoners, the “good” guards do little to restrain the cruelty of their harsh partners. When Prisoner 416 goes on a hunger strike, both guards and fellow prisoners deride him. Power corrupts, notes one of the former guards, and oppressed people have great difficulty standing up for themselves.

By the end of the fifth day, four prisoners have psychologically broken down and been released. Psychologist Christina Maslach’s visit to the prison on the sixth day leads Zimbardo to end his study prematurely. Maslach observes the shackled prisoners being lead to the toilet with bags over their heads. She recognizes that they are truly suffering. Prisoners feel shame, and guards experience guilt. The clip ends with Zimbardo’s thoughtful reflections on the need for ethical treatment of human research participants. He also notes how his study demonstrates the power of evil situations to overwhelm the intentions of good people.

Interpretive Comments

In addition to highlighting the power of situational influence, the Zimbardo study illustrates the influence of role playing on attitudes. Initially, the research participants self-consciously “played” their roles. However, within a very short time period, the guards’ use of power led them to develop disparaging attitudes toward the prisoners and to create cruel and humiliating routines. Similarly, the prisoners broke down, rebelled, or became passively resigned. The prison study raises important ethical issues involving research with human participants. An important guideline that governs research is that investigators will protect their participants from harm and discomfort.

Discussion Questions

1. What does Zimbardo’s study tell us about the causes of human behavior?
2. What does Zimbardo’s study teach us regarding the abuse that sometimes occurs in institutional settings?
3. What ethical issues involving human research participants does this study raise?

Milgram's Obedience Studies

Length: 5:10 minutes

Source: Pennsylvania State University and Alexandra Milgram

Relevant Lecture/Textbook Topics:

- ▶ Social Psychology
- ▶ Research Ethics

Description

This clip contains original footage of the most famous research in psychology, namely, Stanley Milgram's studies of obedience. You may want to use this clip in introducing students to the literature on social influence. The studies also raise important questions about the ethics of research involving human participants.

In these studies participants were asked to serve as "teachers" in presumably pioneering research on the effect of punishment on learning. Milgram was actually interested in the extent to which the participants would obey authority in delivering supposedly traumatizing electric shocks to a screaming, innocent victim in an adjacent room.

The opening scene pans the shock generator with switches ranging from 15 volts to 450 volts in 15-volt increments. In administering the task to the learner, the teacher is instructed to "move one level higher on the shock generator" each time the learner gives a wrong answer.

The "learner" (the experimenter's confederate) is ushered into an adjacent room and, as the teacher looks on, the experimenter straps the learner into a chair and attaches an electrode to his wrist.

The rest of the video focuses on one of the "teachers" as he administers the learning task. On the orders of the experimenter, he delivers increasingly higher levels of shock to the learner for each error. The learner's protests become increasingly strident. At 300 and 315 volts he screams his refusal to answer and after 330 volts he falls silent. The experimenter instructs the teacher to treat nonresponses as errors. Reluctantly, this teacher (as do the majority of other participants in this study) fully obeys the experimenter's commands.

Interpretive Comments

Milgram's results demonstrate that our tendency to obey a legitimate authority may override personal conscience. Unfortunately the results have many counterparts in recent history. The studies were prompted by Adolf Eichman's defense of his involvement in the Holocaust: "I was only following orders." It was also the defense of Lieutenant William Calley who in 1968 directed the slaughter of hundreds of Vietnamese in the village of My Lai and more recently of those who have led the ethnic cleansings in Rwanda, Bosnia, and Kosovo. Americans serving as guards in the Abu Ghraib prison used obedience to authority as their defense for abusing Iraqi prisoners. The obedience studies raise important ethical issues involving research with human participants. Milgram deceived the "teachers" and exposed them to considerable stress. Today's stricter ethical guidelines prevent replication of the obedience studies.

Discussion Questions

1. Can you identify examples of destructive obedience in everyday life?
2. What insights do the Milgram studies provide into these examples?
3. Why do you think the teachers showed such high levels of obedience?

Does Self-Confidence Intimidate Others?

Length: 3:25 minutes

Source: “*Will to Win*” *Human Instinct* (BBC Motion Gallery)

Relevant Lecture/Textbook Topics:

- ▶ Research Methods
- ▶ Social Psychology
- ▶ Thinking

Description

This video is useful for reviewing basic experimental design. It can also be used to introduce attribution theory; that is, how we come to make judgments about other people. Finally, the segment provides an opportunity to introduce a common thinking error, namely, the illusion of control or the idea that chance events are subject to our influence.

How does the way we present ourselves influence other people’s reactions to us? In this study, Todd (a professional actor) plays a simple game of chance against unsuspecting research participants. In the game, Todd and the participant bet against one another. All are allowed to keep whatever they win.

The study begins with Todd and his opponent completing a survey in each other’s presence. Todd presents himself as a winner. He appears competent and in control. Finishing his form quickly, well before his opponent, Todd communicates self-confidence. Next, the two engage in a card game of chance. The highest card drawn wins. Although skill is irrelevant, Todd’s opponents place low bets.

To other research participants, Todd presents himself as a loser. Along with a change in clothes and hairstyle, he acts in a submissive manner. He assumes a hunched and unthreatening posture and avoids eye contact. In short, he does everything to make his new opponents feel superior. While playing the card game, these opponents make much larger bets. Although it is still a game of chance and Todd cannot affect the outcome, the naïve research participants act as though they are playing against a loser.

Interpretive Comments

This simple study provides an excellent opportunity to review basic experimental design. The independent variable is the behavior of the professional actor; that is, whether he behaves confidently or submissively. The dependent variable is the wager made by the research participants while playing the card game. In comparison to playing against a confident opponent, research participants place larger bets when playing against a submissive opponent. Although the program does not refer to the random assignment of research participants to the independent variable conditions, you will want to highlight its importance in assuring control of other possible influences on the dependent variable.

The finding that research participants are willing to bet more while playing against a submissive opponent illustrates our vulnerability to an illusion of personal control. The research participants are involved in a chance task in which the personal characteristics of the opponent are irrelevant. Still, they see a greater likelihood of winning when the opponent appears incompetent. Psychologist Ellen Langer demonstrated the illusion of control in similar gambling experiments. When playing a game of chance against an awkward and nervous person, research participants bet significantly more than when playing against a dapper, confident opponent. Similarly, in a study using lottery tickets, people who selected their own

number demanded four times as much money when asked to sell their ticket as compared to those given an assigned lottery number.

Discussion Questions

1. What are the independent and dependent variables in this study? Why is the random assignment of research participants to the independent variable conditions important to a well-designed experiment?
2. What do the results of this study reveal about human rationality/irrationality?
3. What does this study indicate about the way we make judgments or draw conclusions about other people?

--- Video Support --- Integrating Video into Your PowerPoint Lectures

Importing videos into PowerPoint on a PC...

...in Windows 97/2000

- 1) In slide view, display the slide to which you want to add the video.
- 2) On the **Insert** menu, select **Movies and Sounds**.
- 3) To insert a video from the Media Gallery, select **Movie from Gallery**, and then double-click the video you want.
- 4) To insert a video from another location, select **Movie from File**, locate the folder that contains the video, and then double-click the video you want.

Tip: By default, the video will start when you click it during a slide show. To change how you start a video—for example, by positioning the mouse over the icon instead of clicking it—click Action Settings on the Slide Show menu.

...in Windows XP

- 1) Display the slide to which you want to add a movie or animated GIF.
- 2) On the Insert menu, point to **Movies and Sounds**, and select **Movie from File**. Locate the folder that contains the file you want and then double-click the file.

Note: A movie or GIF file that you've added to the Clip Organizer is found in the **Clip Organizer** folder within the **My Pictures** folder on your hard disk. Or, you can go to the original location for these files.

- 3) When a message is displayed, do one of the following:
 - a) To play the movie or GIF automatically when you go to the slide, click **Yes**.
 - b) To play the movie or GIF only when you click it, click **No**.

...in Windows 2007

To prevent possible problems with links, it is a good idea to copy the movies into the same folder as your presentation before you add the movies to your presentation.¹⁾

- 1) In Normal view, click the slide to which you want to add a movie or animated GIF file.
- 2) On the Insert tab, in the Media Clips group, click the arrow under Movie.

- 3) Do one of the following:
 - a) Click **Movie** from **File**, locate the folder that contains the file, and then double-click the file that you want to add.
 - b) Click **Movie** from **Clip Organizer**, scroll to find the clip that you want in the **Clip Art** task pane (task pane: A window within an Office application that provides commonly used commands. Its location and small size allow you to use these commands while still working on your files.), and then click it to add it to the slide.

Tip: You can preview a clip before you add it to your presentation. In the **Clip Art** task pane, in the **Results** box that displays the available clips, move your mouse pointer over the clip's thumbnail, click the arrow that appears, and then click **Preview/Properties**.

If you try to insert a movie and get a message that Microsoft PowerPoint can't insert the file, try inserting the movie to play in Windows Media Player, as follows:

- 1) In Windows, launch **Windows Media Player** (from the **Start** button, on the **Accessories** submenu).
- 2) On the **File** menu in Windows Media Player, click **Open**, and then type the path or browse for the file you want to insert, and click **OK**.
- 3) If the movie opens and plays, go to step 5 in this task.
- 4) If the movie cannot play, then it won't play when you open the Windows Media Player in PowerPoint, so don't complete this task. You can consult Windows Media Player Help to try to troubleshoot the problem. Also, in PowerPoint, search on "Troubleshoot movies" in the **Ask a Question** box on the menu bar to get more suggestions.
- 5) In PowerPoint, display the slide on which you want the movie to reside, and from the **Insert** menu, select **Object**.
- 6) Under **Object Type**, click **Media Clip**, and make sure **Create new** is selected. If you want the movie to display as an icon, select the **Display as icon** check box.
- 7) Click **OK**.
- 8) On the **Insert Clip** menu in Windows Media Player, click **Video for Windows**.
- 9) In the **Files of type** list, select **All Files**, select the file, and then click **Open**.
- 10) To play the video, click the **Play** button just below the menu bar, at the upper left; to insert it onto your slide, click outside the movie frame.

To add a motion clip from Microsoft Clip Organizer

- 1) On the **Insert** menu, point to **Movies and Sounds**, and click **Movie from Clip Organizer**.
- 2) In the **Insert Clip Art** task pane, scroll to find the clip you want, and click it to add it to the slide.
- 3) If a message is displayed, do one of the following:
 - a) To play the movie or GIF automatically when you go to the slide, click **Yes**.
 - b) To play the movie or GIF only when you click it, click **No**.

Tip: To preview a clip, go to the **Insert Clip Art** task pane. In the **Results** box that displays the clips available, move your mouse pointer over the clip's thumbnail; click the arrow that appears; then click **Preview/Properties**.

Notes

- Clip Organizer initially includes a collection of animated GIFs. Other GIF files and movie files you add to Clip Organizer will also appear in the task pane.
- To do a search for clips in Clip Organizer, click **Modify** and select criteria for a search. To get more information about finding the clip you want, click **Tips for Finding Clips** at the bottom of the task pane; it gives details on finding files using wildcards and adding your own clips to the Clip Organizer.

Importing videos into PowerPoint on a MAC...

...in MAC OS/9

- 1) In slide view, display the slide to which you want to add the video.
- 2) On the **Insert** menu, go to **Movies and Sounds**.
- 3) To insert a video from the Clip Gallery, click **Movie from Gallery**, then double-click the video you want. To insert a video from another location, click **Movie from File**, locate the folder that contains the video, and then double-click the video you want to insert.

Tip: By default, the video will start when you click it during a slide show. To change how you start a video—for example, by positioning the mouse over the icon instead of clicking it—click **Action Settings** on the **Slide Show** menu.

...in MAC OS/X

- 1) In slide view, display the slide to which you want to add the video.
- 2) On the Insert menu, point to **Movies and Sounds**.
- 3) Do one of the following: To insert a video from the **Clip Gallery**, click **Movie from Gallery**, and then locate and insert the video you want. To insert a video from another location, click **Movie from File**, locate the folder that contains the video, and then double-click the video you want.
- 4) A message is displayed. If you want the movie to play automatically when you display the slide, click **Yes**; if you want the movie to play only when you click the movie during a slide show, click **No**.
- 5) To preview the movie in normal view, double-click the movie.

Please understand that these instructions will not work with every version of PowerPoint or every computer operating system, as all systems are different. If you have problems importing the video clips into your presentations, please see your PowerPoint Help menu or visit Microsoft's PowerPoint home page at

<http://office.microsoft.com/en-us/FX010857971033.aspx>

You can also contact BFW Tech Support at (800) 936-6899 or techsupport@bfpwpub.com.

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