

FACULTY GUIDE

for use with the

Instructor Video Tool Kit

for Introductory Psychology
VOLUME TWO

by
Martin Bolt
Calvin College

WORTH PUBLISHERS

FACULTY GUIDE

for use with the

Instructor Video Tool Kit for Introductory Psychology, Volume Two

by **Martin Bolt, Calvin College**

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Instructor Video Tool Kit for Introductory Psychology, Volume Two

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An Introduction to Psychological Science

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?

Ethics in Animal Research: The Sad Case of Booe the Chimp

Length: 5:00 minutes

Source: “*Chimps on Death Row*” *Horizon* (BBC Motion Gallery)

Relevant Lecture/Textbook Topics:

- ▶ Research Ethics
- ▶ Animal Thinking and Language

Description

This video raises important questions about the ethics of research on animals. If we share important similarities with other animals, should we not respect them? The case study also reveals the chimpanzee’s amazing cognitive skills.

As a participant in research on animal communication, Booe mastered sign language. When funding for the study in which he was involved ended in the early 1980s, the chimp, then 13 years old, returned to the harsh world of biomedical research. Although Booe experienced a dramatic change in lifestyle, he seemed to settle in quite satisfactorily with 40 other chimps. All the animals were involved in research on serious physical illnesses.

Booe was placed in his own cage. To break the boredom of solitary confinement, staff provided the animals with combs, toothbrushes, and mirrors. In their fascination with these objects, the chimps demonstrated human-like qualities. One animal even seemed to develop skill with a harmonica.

When timed permitted, the investigators held parties to entertain the animals with music, games, and balloons.

After 16 years, Booe was reunited with the researcher who had taught him sign language. Remarkably, Booe immediately recognized the researcher and together they picked up communication where they had left off. The chimp even remembered and signed his former teacher’s nickname. Booe seemed crushed when the researcher signed that it was time for him to leave.

The narrator states that, in the 40 years chimps have been used in research, their living conditions have noticeably improved. They are now typically allowed to live in social groups, at least until they are used as participants in specific experiments.

Interpretive Comments

Clearly, our compassion for animals varies based on their perceived similarity to us, as psychologist Scott Plous has noted. Booe’s participation in language studies highlights that similarity and thereby also likely heightens our concern for his well-being. Booe’s participation in medical experiments led to a deterioration in his living conditions. More importantly, this participation put his health and life at risk. Most researchers today feel ethically obligated to enhance the well-being of captive animals and to protect them from needless suffering. Many professional associations and funding agencies have guidelines for the humane use of animals. The British Psychological Society’s guidelines call for housing animals under reasonably natural living conditions with companions for social animals. Similarly, the American Psychological Association’s guidelines call for ensuring the “comfort, health, and humane treatment of animals” and for minimizing the “infection, illness, and pain of animal subjects.” Those who

use animals in medical research would note that animal experiments have led to successful treatments for human diseases—for example, insulin for diabetes, vaccines to prevent polio and rabies, and transplants to replace defective organs.

The chimpanzees featured in this video highlight the species' remarkable capacity for thinking. They form concepts, exhibit insight, and use tools. Careful observation of chimpanzees has indicated that they are natural tool users, even selecting different tools for different purposes. Researchers have discovered more than three dozen customs related to chimp tool use, grooming, and courtship. Booe has not only mastered the ability to sign, he also demonstrates an exceptional memory.

Discussion Questions

1. Should Booe have been used in medical experiments after participating in the study of animal language? Why or why not?
2. What does the case of Booe indicate regarding the intelligence of animals?
3. Do you support the use of animals in research, including medical experiments? Why or why not?

Neuroscience and Behavior

Chemically-Induced Hallucinations: Studies of Anesthetic Drugs

Length: 3:40 minutes

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

Relevant Lecture/Textbook Topics:

- ▶ Neuroscience
- ▶ States of Consciousness

Description

You may choose to use this brief video in your discussion of how nerve cells communicate and how drugs can alter neurotransmission and thus mood and behavior.

This clip examines Franz Vollenweider’s research on how the anesthetic drug ketamine affects the brain. The drug enhances mood and can even lead to feelings of euphoria. Ketamine impacts all the sensory modalities especially hearing and sight. Hallucinations are its most dramatic effect.

One of the challenges for any theory of consciousness is to explain how minute dosages of an anesthetic can produce such distorted experiences. Under the influence of the drug, a volunteer describes his greatly altered experience, highlighting how his visual and auditory senses interact and even meld.

Normally, input from the senses impacts the brain. The drug ketamine weakens the signals coming from the senses and replaces them with a jumble of activity spontaneously generated in the brain. This activity produces the hallucinations.

Volunteers have undergone brain scans while they are hallucinating. Over several minutes, the scans have indicated slight changes in activity in the front of the brain. However, consciousness is too fleeting for the underlying subtle and transient changes in brain cell activity to be detected by such an approach.

Vollenweider suggests that ketamine directly interferes with communication between nerve cells. Sometimes communication is even blocked. The drug may lead to new assemblies between nerve cells so that a different neural network gets established.

Interpretive Comments

Neurotransmitters carry messages from a sending neuron across the synapse to receptor sites on a receiving neuron. Each neurotransmitter travels a designated path in the brain and has a specific effect on behavior and emotions. Various drugs, including ketamine, affect communication at the synapse, often exciting or inhibiting neurons’ firing. Agonists excite by mimicking the action of a neurotransmitter. Antagonists block or inhibit the action of a neurotransmitter. Ketamine is a NMDA receptor antagonist, which is often used as an anesthetic in reconstructive plastic surgery and in burn victim treatment. It is a preferred anesthetic for emergency patients with unknown medical history because it depresses breathing and circulation less than other anesthetics.

Ketamine comes in either a clear liquid or an off-white powder form. It emerged as a recreational drug in the 1970s. Known as “Vitamin K” in the 1980s, it resurfaced in the 1990s rave scene as “Special K.” Higher dosages of the drug produce an effect referred to as “K-Hole,” an “out of body” or “near-death” experience. Use of the drug can cause hallucinations, delirium, amnesia, depression, and long-term memory difficulties. Due to its dissociative effect, it is reportedly used as a date-rape drug.

Discussion Questions

1. What does this video teach us about the links between biology and human experience?
2. What psychological and social-cultural factors foster recreational drug use?
3. What do you think are some important channels of influence for drug prevention and treatment programs?

Parkinson's Disease: A Case Study

Length: 4:10 minutes

Source: "Unlocking Parkinson's" 60 Minutes (CBS News)

Relevant Lecture/Textbook Topics:

- ▶ Neuroscience
- ▶ Development

Description

The neuroscience perspective focuses on the relationships between brain, mind, and behavior. The value of studying the specific connections between brain and behavior becomes apparent in the recent development of an effective intervention for Parkinson's disease. The video titled "Treating Parkinson's Disease: Deep Brain Electrode Implantation" describes the treatment in greater detail.

Dale is a 55-year-old man who suffers from Parkinson's disease. He describes his illness as having "a sharp mind in a body that does not work." It has left him feeling hopeless.

Dale was diagnosed with the disease 14 years ago and it has grown progressively worse. His frozen muscles leave him immobilized. Medication temporarily relieves these symptoms, but at times it also produces uncontrollable, wild movement. Each morning Dale waits to regain some limited ability to control his body.

In the last three years, as the disease has progressed, Dale has become housebound and his medication has become less effective. His wife provides daily care. Dale reports that strangers stare as if he is mentally as well as physically ill. He longs to be viewed as a normal human being.

The next scene shows Dale dramatically improved after treatment (see "Treating Parkinson's Disease: Deep Brain Electrode Implantation" for coverage of deep brain electrode stimulation). Playing pool, he demonstrates his regained mobility and body control. He explains how he is again able to care for his own basic needs. With his wife at his side, he attends church for the first time in nearly three years. Old friends welcome him back. Dale describes himself as a new person with renewed hope.

Interpretive Comments

Dale suffers from Parkinson's disease, a degenerative disorder of the central nervous system. It is marked by muscle rigidity, tremors in hands, arms, legs, and face, reduced physical movement, and impaired balance and coordination. As these symptoms become more severe, patients may have difficulty walking, talking, and completing other simple tasks. Early symptoms of Parkinson's are subtle and occur gradually. The disorder usually strikes people over the age of 50 and results from the deterioration of a neural tract that runs from the brainstem into the basal ganglia. The tremors exhibited in Parkinson's result from the death of nerve cells that produce the neurotransmitter dopamine. Giving the person dopamine does not work because of the presence of the blood-brain barrier, which enables the brain to keep out unwanted chemicals circulating in the blood. Some chemicals, including L-dopa, manage to cross the barrier. Once in the brain, L-dopa is converted to dopamine and enables many patients to regain better muscular control. Deep brain stimulation is currently the most effective surgical means of treatment.

Discussion Questions

1. What does Dale's case tell us about the relationship between brain and behavior?
2. How does society view persons with special physical challenges?

Treating Parkinson's Disease: Deep Brain Electrode Implantation

Length: 5:25 minutes

Source: "Unlocking Parkinson's" 60 Minutes (CBS News)

Relevant Lecture/Textbook Topics:

- ▶ Neuroscience
- ▶ Development

Description

Dale suffers from Parkinson's disease (as shown in the video "Parkinson's Disease: A Case Study"). In this clip, Dale learns that he will receive a revolutionary new treatment at the Cleveland Clinic. In deep brain stimulation, electrodes are implanted in both sides of the brain and linked to two small generators comparable to heart pacemakers. The electric charge that is delivered is expected to relieve Dale's symptoms.

A computer, MRIs, and CAT scans guide the surgeon to the target, about the size of a small olive, deep within Dale's brain. The surgeon describes the route as a labyrinth. Two dime-sized holes are drilled in Dale's skull. It is important that he remain conscious and communicative throughout the procedure to make sure that the surgery does not disrupt his speech and vision. A tiny microphone at the end of the probe enables surgeons to hear the brain activity essential to locating the target. A test charge of electricity delivered to Dale's brain produces the desired muscle control. As the tiny electrodes are permanently implanted deep within his brain, Dale demonstrates restored capacity to open and close his hand. The surgeons express confidence that the surgery has been successful.

Dale returns to the Cleveland Clinic a month after surgery. Clearly the intervention has been a huge success. He is able to walk, his facial muscles are relaxed, and his speech is much improved. He reports that he again intends to play music, shoot pool, and enjoy "wild, passionate sex." The power system that delivers impulses to the electrodes is adjusted. Turning the small pacemakers on and off dramatically demonstrates the difference that stimulation makes in terms of Dale's ability to control his body. He describes the experience as comparable to turning a light switch on and off. The surgeons report that the outcome is representative of the new procedure's impact on Parkinson's victims.

Interpretive Comments

In 2002, the Food and Drug Administration (FDA) approved deep brain stimulation as a treatment for Parkinson's disease. At present, the procedure is used only for patients whose symptoms cannot be adequately controlled through medication. As this video illustrates, the neurosurgeon uses MRI or CAT scanning to locate the exact target within the brain, where electrical nerve signals generate the symptoms of Parkinson's disease. Generally, the targets are the thalamus, subthalamic nucleus, and globus pallidus.

The system for deep brain electrode stimulation (DBS) consists of the lead or electrode, the extension, and the neurostimulator. The electrode is inserted through a small opening in the skull and positioned within the targeted area. The extension consists of an insulated wire that is passed under the skin of the head, neck, and shoulder and is connected to the neurostimulator. The battery pack is implanted near the collarbone, in the chest, or under the skin over the abdomen. Electrical impulses, sent along the extension and into the brain, interfere with and block the electrical signals that cause Parkinson's symptoms.

The DBS system does not destroy nerve cells or damage healthy brain tissue. Thus, if improved treatments are found in the future, the procedure can be reversed. If the patient's condition changes, stimulation from the neurostimulator is easily adjusted (often referred to as "programming") without additional surgery.

Discussion Questions

1. How does this case demonstrate the importance of the neuroscience perspective in psychology?
2. What does this case tell us about the structure and function of the human brain?

Compulsive Gambling and the Brain's Pleasure Center

Length: 5:20 minutes

Source: "Seeking Perfection" *Obsession* (BBC Motion Gallery)

Relevant Lecture/Textbook Topics:

- ▶ Neuroscience
- ▶ Addiction

Description

This video provides an opportunity to introduce the fascinating research on reward centers located in or near the hypothalamus, which have been discovered in many species. Addictive disorders, including compulsive gambling, may stem from a reward-deficiency syndrome. This segment also illustrates how the brain and experience interact.

University of Minnesota research findings on compulsive gamblers like Theodore may provide insight into a variety of obsessions. They all seem to share similarity in brain circuitry.

Theodore's casino visits release chemicals that stimulate the brain areas that process pleasure and urge. All people share this underlying process for recognizing and enjoying pleasurable experiences. However, for those who become obsessed, the process seems to physically change their brains and pleasure pathways begin to dominate. In Theodore's case, any reminder of the casino sets off the uncontrollable urge to gamble.

Researchers believe that the brain changes produce a variety of obsessions. In each case, compulsive behavior takes on an uncontrollable life of its own. Theodore notes that, while his gambling is exciting, it is also destroying his life. He enrolls in an experimental treatment that uses medication to block the pleasure-giving chemicals in his brain. The therapist assures Theodore that the drug will not dampen his more general pleasure. It should only dampen the pleasure associated with his compulsive behavior.

The medication normally treats drug addiction. A higher dosage is used to treat Theodore's gambling. Initially, he still has an urge to gamble and, on at least one occasion, visits the casino. However, as he increases the dosage of the drug, the urge and even the thoughts associated with gambling dissipate.

Five weeks later, while still on medication, Theodore searches for an activity that will produce the pleasure once associated with gambling. At one time he enjoyed piloting helicopters in the military and begins flying again. He frankly wonders whether the activity will ever restore the thrill of gambling.

Returning to the casino, Theodore finds that his gambling obsession is gone. He is amazed at the success of the treatment.

Interpretive Comments

Research suggests that a variety of addictive disorders may stem from a reward-deficiency syndrome. A genetically-disposed deficiency in the natural brain systems that regulate pleasure and well-being leads people to crave whatever provides that missing pleasure or relieves negative feelings. A low number of receptors for dopamine, a pleasure-rewarding neurotransmitter could be one important reason why people engage in binge-eating, drug abuse, or, as in this specific case, compulsive gambling. In short, impaired

dopamine reception may make people feel they have to eat, drink, or gamble *more*. When drugs block the pleasure that Theodore gets from gambling, the obsession clearly weakens. More constructive activity—for example, flying helicopters—may eventually restore the pleasure that he gleaned from gambling.

Discussion Questions

1. What does this program reveal about the nature of human motivation?
2. Are compulsive gamblers responsible for their obsession? Why or why not?
3. What does this video teach us about the relationship between the brain and experience?

Rewiring the Brain

Length: 3:00 minutes

Source: *CBS Evening News* (CBS News)

Relevant Lecture/Textbook Topics:

- ▶ Neuroscience
- ▶ Brain Plasticity
- ▶ Sensation and Perception

Description

This video provides a dramatic example of how the brain can be rewired so that stimulation of the tongue enables a blind person to see.

Roger has been blind since he was a young man. Now BrainPort, an amazing new experimental technology, is enabling him to regain his sight. The technology swaps eyes for tiny cameras that transform visual images to electrical signals that Roger feels on his tongue. Roger compares it to the feeling of having someone draw a picture on one's back.

In normal vision, the eye sends signals to the brain's visual cortex for interpretation. BrainPort retrains the brain to process information by first stimulating the tongue. The signals are sent via the brainstem to the area of the brain that processes touch. Eventually, the blind person learns to interpret touch as sight in the visual cortex.

Wearing a small camera on his forehead, Roger carefully and accurately navigates the corridors of the office and, at one point, even spots the logo on a football jersey. Other blind persons are able to recognize numbers. The trainer explains how the process is much like learning a new language that eventually becomes automatic. Wearing a blindfold, the narrator tries out the new technology and, with some practice, is able to see the orientation of straight lines. Over the next several months, refinements in the technology will enable the blind person to see objects with greater clarity. BrainPort dramatically illustrates how the human brain can be rewired.

Interpretive Comments

Brain plasticity refers to the brain's capacity for modification. In this case, the brain uses sensory information normally perceived as touch to enable a blind person to see. Both genes and experience mold the brain. Other lines of research demonstrate how an enriched environment can foster a heavier, thicker brain cortex in young rats. Moreover, repeated experiences modify a rat's neural tissue at the very spot in the brain that processes the experience. Most notably, new research evidence indicates that adult mice and humans can generate new brain cells. The video also demonstrates how perception, which involves the organization and interpretation of sensory experience, is ultimately accomplished in the brain.

Discussion Questions

1. What does this case tell us about the structure and function of the human brain?
2. How do both *nature* and *nurture* contribute to our perception of the world?

The Split Brain: Lessons on Cognition and the Cerebral Hemispheres

Length: 3:50 minutes

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

Relevant Lecture/Textbook Topics:

- ▶ Neuroscience
- ▶ Intelligence

Description

This video provides an opportunity to introduce the remarkable ways in which the findings from research with split-brain patients inform our understanding of the human brain.

To control his epileptic seizures, Joe underwent surgery in which his brain was severed. His split brain now allows researchers to explore the workings of his left and right hemispheres. His “party” trick is to draw two separate objects (one with each hand) simultaneously. More than thirty years of research with divided-brain patients has convinced researcher Michael Gazzaniga that asymmetry is the key to understanding our mental capacities.

Gazzaniga maintains that intelligence comes from the left hemisphere. The preoperative IQ and problem-solving skills of the split-brain person are the same as that of his left hemisphere after surgery. In contrast, states Gazzaniga, the right hemisphere is “sort of dumb.”

However, in comparison to the right hemisphere, the left hemisphere is poor at recognizing visual patterns. Even a mouse brain is able to discriminate between the two visual patterns that Joe’s left hemisphere fails to distinguish. Gazzaniga speculates that, as part of the process of evolution, the left hemisphere mutated to develop language. As a result, its complex, perceptual processes were squeezed out and became the province of other brain areas. In the course of evolution, he concludes, our left hemisphere acquired more complex cognitive functions, while our right hemisphere remained largely unchanged.

Interpretive Comments

Split-brain surgery leaves people with “two separate minds.” Joe can comprehend and follow instructions that tell him to simultaneously copy different figures with his left and right hands. You might ask your students to try this task themselves, simply to appreciate its difficulty. Experiments with split-brain patients provide an important key to understanding the respective, complementary functions of each brain hemisphere. The left hemisphere has superior linguistic ability, while the right has superior spatial ability. In addition, the left hemisphere is more active when a person deliberates over decisions and the right hemisphere is more engaged when quick, intuitive decisions are needed. Gazzaniga suggests these hemispheric differences can be understood as part of the evolutionary process. Research with people who have intact brains confirms that each hemisphere makes unique contributions to the integrated functioning of the human brain.

Discussion Questions

1. How does this program demonstrate the importance of the neuroscience perspective in psychology?
2. What does research with Joe tell us about the human brain?
3. What are the specific strengths of each hemisphere? In what ways do the hemispheres work together?

Nature and Nurture

The Nature–Nurture Issue

Length: 5:05 minutes

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.

100 Years Old and Counting: Psychological and Biological Factors

Length: 6:30 minutes

Source: “*The First Hundred Years*” *Sunday Morning* (CBS News)

Relevant Lecture/Textbook Topics:

- ▶ Nature–Nurture Issues
- ▶ Development

Description

This video suggests that both nature and nurture—that is, both heredity and environment—contribute to longevity.

At the age of 101, Ray works daily in his chemistry laboratory at Messiah College. He continues to study the complex effects that toxic metals have on the environment. He hesitates to call what he finds so fascinating to be “work” and describes his ability to keep going as inherent. “I just do it,” he claims, “and don’t think about it.”

Those who reach the age of 100 tend to be happy-go-lucky, assertive, and good at stress management. In addition, they have strong interests that motivate them to get up in the morning. 101-year-old Alva is motivated by baking a favorite recipe, sampling a box of chocolates, and, most importantly, painting—a hobby that she has enjoyed for almost 90 years. Alva also values her social connections and goes out with friends three times a week. She reports that she never felt as though she were growing old. Longevity seems to run in Alva’s family. Her father lived to nearly 100, her grandfather to 95, and a cousin reached the age of 111.

Researcher Thomas Perls believes that centenarians hold some important genetic secrets. More than half of the participants in his study have family members who also enjoyed long lives. After careful examination of the DNA of centenarians and their siblings, Perls and geneticist Louis Kunkel reported success in identifying the region of a chromosome they believe contains the genes responsible for longevity. The next step is to identify the specific gene or genes that underlie longer life. Perls expresses the hope that such identification might eventually lead to the development of longevity drugs.

More than genes, however, foster a long life. Good health habits could extend everyone’s life.

Interpretive Comments

Both nature and nurture (genes and experience) contribute to successful aging. The fact that longevity tends to run in families suggests that genes may play a vital role in how long we live. As this video highlights, the search for the specific genes that underlie long life is progressing rapidly. At the same time, you might note to your students that some evolutionary biologists maintain that we pass on our genes most successfully when we raise our young and then stop consuming resources. That is, once we have completed our gene-producing task, there are no natural selection processes against genes that cause degeneration in later life.

Obviously, good health habits extend our lives. In addition, life attitudes seem to be important to successful aging. In a study of 180 Catholic nuns, those who expressed hope, happiness, love, and other

positive feelings in early adulthood lived an average of seven year longer than those with more negative attitudes. This held true in spite of similar lifestyles and the same social status.

Discussion Questions

1. How does this program highlight the importance of both nature and nurture in understanding successful aging?
2. Which personality characteristics do you believe are associated with longevity?
3. What are the most important aspects of lifestyle that foster successful aging?

Designer Babies?

Length: 6:50 minutes

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

Relevant Lecture/Textbook Topics:

- ▶ Nature–Nurture Issues
- ▶ Molecular Genetics
- ▶ Development

Description

Molecular genetics represents the new frontier of behavior-genetics research. It aims to identify the specific genes that influence behavior. This case study illustrates important advances in the field, as well as the highly controversial issues that these new developments raise. The program will stimulate a lively classroom discussion.

Thousands of children are born annually with devastating genetic diseases that eventually prove fatal. For example, Maigon was only a few months old when doctors told her parents that she suffered from Tay-Sachs disease and had only a short time to live. The disorder led to Maigon’s loss of all her motor skills, her ability to speak, and finally her life.

Fearing that another child might suffer the same fate, Maigon’s parents decided to remain childless. However, a year after Maigon died, doctors presented them with the hope of bearing a child free of Tay-Sachs. Researchers had discovered the precise genetic abnormality underlying the disorder. Also, in vitro fertilization techniques enabled doctors to handle early embryos more effectively. These advances were critical in the development of preimplantation genetic diagnosis (PGD), a strategy that could permit couples to have children free of Tay-Sachs.

Some of Renee’s eggs were fertilized with her husband’s sperm in the laboratory. The tiny embryos were tested for the Tay-Sachs gene. The embryos that proved free of the disease were implanted in Renee. One developed into a baby. Brittany proved to be the successful culmination of the dreams of nearly a decade of research. In recent years, hundreds of babies have been conceived through PGD, free of a variety of deadly genetic diseases.

The potential for people to use the developing technology to select for more than health poses a significant moral dilemma. Parents could possibly choose genes not only for health but also for cosmetic reasons—for such characteristics as height or even eye or hair color. PGD was intended to enable parents to have children free of deadly genetic diseases, not to provide them with the opportunity to produce designer babies.

Interpretive Comments

Molecular genetics is the subfield of biology that studies the molecular structure and function of genes. Genetic tests can now reveal people at risk for many diseases. Molecular geneticists work with psychologists to identify genes underlying learning disabilities, depression, schizophrenia, aggressiveness, and alcoholism. Molecular geneticists increasingly seek links between certain genes or chromosome segments and specific disorders.

Medical personnel may soon be able to give potential parents a read-out on how their fetus' genes differ from normal and what this might mean. Parents may not only select for health but also for intelligence, beauty, and athleticism. Such screening poses ethical dilemmas. For example, in China and India, where males are favored, testing for an offspring's sex has resulted in selective abortions resulting in millions of missing women. A new strategy for sorting sperm carrying male and female chromosomes can provide parents with a reasonable chance of success at choosing a child's sex before conception.

Discussion Questions

1. What does the research suggest about the role of nature and nurture in shaping human behavior?
2. Should parents be given the opportunity to choose the specific physical and psychological characteristics of their children? Why or why not?
3. What, if any, specific guidelines or limits do you think should be placed on parents' capacity to design their own babies?

Evolutionary Psychology and Sex Differences

Length: 4:10 minutes

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

Relevant Lecture/Textbook Topics:

- ▶ Evolutionary Psychology
- ▶ Gender Differences
- ▶ Theoretical Perspectives

Description

This program is useful for introducing the evolutionary perspective and the critic's frequently expressed concern about its negative personal and social consequences. Both Steven Pinker and Richard Dawkins speak directly to the question of whether genetic determinism undermines moral responsibility.

Pinker notes that, although men and women are overwhelming similar in most mental traits, they differ in sexuality. Helena Cronin adds that the different environmental challenges that face the sexes have contributed to significant differences in psychological makeup. Some feminists fear that highlighting gender differences may promote inequality.

Science, notes Cronin, seeks only to describe reality. Morality prescribes how we *ought* to live. Thus, in describing men as more promiscuous than women, evolutionary theory is not sanctioning such male behavior. Pinker rejects the notion that explanations of behavior get "people off the hook." The fact that people have desires, and that scientists have explanations for those desires, does not mean that people must act on those desires. In fact, in his own life, Pinker has chosen not to act on the most fundamental evolutionary urge—namely, the desire to have children. People make many decisions that do not carry out the dictates of evolution. Pinker describes his personal choice as "telling his genes to go jump in the lake."

Richard Dawkins concludes that one can be a scientist who understands human nature, including the reality of selfish genes. At the same time, one can acknowledge that we have a brain (it, too, a product of natural selection) that enables us to do the unexpected—namely, to tell our genes to go jump in the lake.

Interpretive Comments

Evolutionary psychologists suggest that explaining how we came to be need not dictate how we *ought* to act. In fact, understanding our predispositions may help us overcome them. Rather than undermining personal and social responsibility, evolutionary psychology may enhance it. This argument, of course, would apply to research that is generated by psychology's other theoretical perspectives as well. In showing this clip, you may also want to note that psychological science does not seek to answer ultimate questions such as the meaning or purpose of human life. The naturalistic fallacy is the error of defining what is observable as necessarily good. For example, no survey of sexual practices logically dictates what is "right" behavior.

Discussion Questions

1. Does the understanding of human behavior undermine personal responsibility? Why or why not?
2. Do you think that psychology is free of value judgments? Why or why not?
3. What is the relationship between the different theoretical perspectives on human behavior and experience? Are they competing or complementary? Explain your answer.

The Developing Person

Today's Overscheduled Children

Length: 5:50 minutes

Source: "Overscheduled Children" 60 Minutes (CBS News)

Relevant Lecture/Textbook Topics:

- ▶ Development

Description

This segment provides a good extension to the literature on child-rearing practices. What are the benefits and costs of filling a child's days with a variety of after-school activities?

In this video, children report their busy involvement in various activities including soccer, basketball, baseball, gymnastics, and babysitting. Twelve-year-old Johnny reports that on Tuesdays and Thursdays going from baseball to lacrosse to soccer causes him to miss dinner. On Wednesdays, Catherine and Carolyn rush from community service to softball to homework time. Parents, like Terry and John, try to keep up with their children's schedules. Terry maintains a monthly calendar by child and by week.

Alvin Rosenfeld, author of *The Over-Scheduled Child*, describes "hyperparenting" as both an action and an anxiety. He admits that even he is ambitious and wants his children to do well. Hyperparents attempt to fill their child's day with enriching activities. As a result, children have no time for themselves, no time to imagine, and often become exhausted.

Johnny's father suggests that scheduled activities keep kids out of trouble. Without regret, he accepts the label of hyperparent. Johnny enjoys sports with his friends, but admits he has little free time to hang out or watch television. Terry worries that if she does not schedule her daughter's participation in a sport, she will lose her competitive edge. Terry's daughter Sarah excels in both soccer and drama and seems to enjoy her hectic life.

However, families rarely schedule time to eat dinner together. Rosenfeld reports that families who do spend time together tend to have children who flourish. Both parents and children need time to enjoy the pleasure of being together.

In the past, children's time was their own. Their activities were not scheduled or supervised by parents. Today's parents worry that children left on their own may be unsafe. The tragedy, claims Rosenfeld, is that in trying to be good parents we steal childhood. We schedule every moment of a child's time because we think we know what's best.

Interpretive Comments

Some professionals argue that play that involves unstructured, child-driven activity contributes to optimal cognitive, physical, social, and emotional development. For example, the American Academy of Pediatrics's Clinical Report entitled *The Importance of Play in Promoting Healthy Child Development and Maintaining Strong Parent-Child Bonds* suggests that free play fosters healthy brain development, allows children to develop their imagination and creativity, and provides practice in decision-making skills.

Furthermore, undirected play allows children to learn to work in groups, share, negotiate, resolve conflicts, and develop self-advocacy skills. The report argues that, when activity is structured and controlled by adults, children are less likely to develop creativity, leadership, and group skills.

In this video, Rosenfeld argues that both parents and children need time to enjoy the pleasure of being together. When parents participate in child-driven play, they are given an opportunity to see the world from their children's perspectives. As a result, parents may learn to communicate more effectively with their children. The interactions also tell children that their parents care about them, which may help to build enduring relationships.

Discussion Questions

1. What do you think motivates parents to structure all of their child's activities?
2. Is it important for children to have unscheduled "free" time? Why or why not?
3. How would you characterize the parenting style that calls for so many scheduled activities for children?

Teen Boys: Emerging Sexuality

Length: 2:05 minutes

Source: “*Hormonally Yours*” *Body Chemistry* (BBC Motion Gallery)

Relevant Lecture/Textbook Topics:

- ▶ Development
- ▶ Motivation

Description

This clip is appropriate to use while either discussing adolescent development or considering gender differences in sexual motivation. It highlights the role of hormonal influences on sexual behavior.

This video explores the importance of testosterone in the sexual development of teenage boys. Both teen boys and girls report that the rush of testosterone leads boys to focus on their physical development, and sometimes to propose inappropriate sexual activity. Clips from old feature films capture teenage boys' aggressive sexual behavior.

An expert in teenage development suggests that we fail to teach teen boys how to deal appropriately with their emerging sexuality. Erections, she notes, happen at inappropriate and embarrassing times, something that rarely occurs by the time males reach college age.

Another expert notes that, in the teen years, males and females are very different. High levels of testosterone drive males to seek sexual activity, while females are most concerned with protecting themselves. Female teens are moving into a period of high fertility, and having children at an early age endangers their health and their future. Thus, at a time when boys are most interested in sex, girls are most interested in planning a successful life.

Interpretive Comments

Testosterone is the most important of the male sex hormones. Although both males and females have it, a male's additional testosterone stimulates growth of male sex hormones in a fetus as well as development of male sex characteristics during puberty. Beginning at approximately age 13 in boys, the surge of hormones during puberty stimulates two years of rapid development. Both primary sex characteristics (reproductive organs and external genitalia) and secondary sex characteristics (facial hair, deepened voice, pubic and underarm hair) develop dramatically. Interest in sex also increases.

Sexual arousal seems to be a cause as well as a consequence of increased testosterone levels. For example, research indicates that heterosexual male testosterone levels increase more significantly after a conversation with a female student than after a conversation with another male student. Compared to hormones in nonhuman animals, hormones in humans more loosely influence sexual behavior. In fact, in men, normal fluctuations in testosterone levels have little effect on sexual drive. Large hormonal variations over a lifetime have a greater effect.

Discussion Questions

1. How do evolutionary psychologists explain the differences found in the sexual behavior of males and females?
2. How would a biopsychosocial perspective account for male-female differences in sexual behavior?

Teen Girls: Emerging Sexuality

Length: 2:15 minutes

Source: “*Hormonally Yours*” *Body Chemistry* (BBC Motion Gallery)

Relevant Lecture/Textbook Topics:

- ▶ Development
- ▶ Motivation

Description

This video parallels the program entitled “Teen Boys: Emerging Sexuality” and thus you may choose to show them at the same time. Both segments examine hormonal influences on sexual development and motivation.

Teen girls describe how their physical development often elicits embarrassing sexual comments and reactions from boys. Some girls attempt to find clothes that conceal their emerging sexuality.

The narrator notes that, unlike testosterone, the sex hormone estrogen is less directly linked to sexual behavior. In contrast to other animals, human females have lost their period of heat. In fact, most women do not know when they ovulate. One of the hallmarks of human female sexuality is that women may copulate at any time in the menstrual cycle.

The hormonal factors that drive women to have sex are complex and not just related to estrogen. Researchers now believe that testosterone plays an important role in both the female and male sex drive. At about eight years of age, girls produce a weak form of testosterone from their adrenal glands. But clearly estrogen plays some role in female sex drive because, when deprived of estrogen, women experience a loss of sexual interest and response. However, research also suggests that testosterone is the key hormone in determining female sexual motivation.

Interpretive Comments

For girls, puberty starts with breast development, which often begins by age 10. The first menstrual period, called menarche, usually occurs within a year of age 12. Almost all adult women recall it with some ambivalence—that is, with feelings of excitement and pride, but also with some embarrassment and apprehension.

The *sequence* of physical development is more predictable than the actual *timing*. For example, some girls have already started their growth spurt by age 9. Although early maturation seems to benefit boys, it is often stressful for girls. An early maturing girl’s physical development may run ahead of her emotional maturity. In addition, she may begin associating with older adolescents rather than with her more slowly maturing peers and friends. As a result, she may experience teasing or even sexual harassment. Clearly, people react differently to early maturing girls than to early maturing boys. Heredity and environment interact in shaping sexual attitudes and behaviors.

As this video suggests, women’s sexuality differs from that of other mammalian females in that human women are more responsive to testosterone level than to estrogen level. If a woman’s testosterone level drops as a result of removal of the ovaries or adrenal glands, her sexual interest often declines. Testosterone-replacement therapy often helps to restore sexual motivation.

Discussion Questions

1. In this program, which theoretical perspective is emphasized in the explanation of human sexual behavior?
2. Does early maturation impact adolescent boys and girls in the same ways? Explain.
3. How do nature and nurture interact to shape female sexual motivation and behavior?

Echo Boomers: Understanding Today's College Students

Length: 5:20 minutes

Source: "Echo Boomers" 60 Minutes (CBS News)

Relevant Lecture/Textbook Topics:

- ▶ Development

Description

As part of your consideration of lifespan development, this video's provocative discussion of the values and attitudes of today's college students is likely to generate lively classroom discussion and debate.

From the moment they get up in the morning, technology like cell phones, iPods, and the Internet connects today's college students to a global community. Nick and Andy, college seniors and editors of their school's newspaper, note that today's college generation is over-achieving, over-managed, and pressured. From early childhood, their lives have been carefully scheduled by parents who believed that their children needed structure and a sense of mission.

Pediatrician Mel Levine states that today's college students have been heavily programmed. Their time has been scheduled and their lives reflect compliance with what adults have told them to do. Rules have replaced rebellion. Convention has won out over individualism, and students' values tend to be conventional. Protected since childhood, they do not know what to do when left on their own.

Nick and Andy note that everyone is "above average." Every college student is used to getting a trophy at the end of the year. Parents, claims Levine, seem to feel their children are fragile. They inflate their children's egos and fight their battles. Because children are rewarded for participation and not achievement, they do not have a good sense of their own strengths and weaknesses.

When today's young adults arrive in the workplace, claims Levine, they expect to be immediate heroes and heroines. They want to be told they are doing a great job. Furthermore, they have difficult thinking long range. Rewards need to be immediate. Levine refers to the phenomenon as visual motor ecstasy—that is, anything that does not produce immediate gratification is boring.

A group of college student admits that they have come to expect outcomes to be immediate. At the same time, the group is proud of who they are.

Interpretive Comments

Emerging adulthood, the period from age 18 to the mid-twenties, represents the more gradual transition from adolescence to adult independence that now occurs in industrialized societies. Today's adolescents take a longer time to finish school and establish careers. Emerging adults engage in more self-focused exploration of different possibilities for work, relationships, and worldviews. In the United States, the age at which both men and women might embark on a first marriage has increased significantly. They will often continue to live in their parents' home, remaining parentally-dependent into their late-twenties or even early-thirties. In earlier times (as well as in some of today's developing countries), the responsibilities of adulthood came sooner. Shortly after reaching sexual maturity, the new adult worked, married, and had children.

This video raises important questions about the merits of the self-esteem movement—and particularly about the notion that simply telling children they are “wonderful” pays personal and social dividends. Perhaps the benefits of *feeling* good only follow *doing* good. Some psychologists argue that genuine self-esteem comes as a result of meeting challenges and overcoming difficulties. In fact, critic Roy Baumeister argues, “Forget about self-esteem and concentrate more on self-control and self-discipline. Recent work suggests this would be good for the individual and good for society.”

Discussion Questions

1. Do you agree with this analysis of college students’ attitudes and values? Why or why not?
2. How well are colleges preparing students for the workplace? In what ways might they improve?
3. What are important sources of stress in the lives of today’s college students?

Alzheimer's Disease

Length: 8:40 minutes

Source: "A New Day" *Sunday Morning* (CBS News)

Relevant Lecture/Textbook Topics:

- ▶ Development
- ▶ Memory

Description

The physical changes that may occur in later life, as well as memory's centrality to our life, are important topics of this video segment.

Elderly residents of a Brooklyn nursing home suffer from Alzheimer's disease, an illness that has stolen their memories. Eventually they will even be unable to remember their own identities.

Roy, a 54-year-old male, was recently diagnosed with Alzheimer's. Although he is a decorated Air Force Colonel, every three months he must endure what he calls the "stupid" test, an assessment of his memory. Roy and his wife Susan hope for a cure, or at least an intervention, that will slow progression of the disease.

Four million Americans have Alzheimer's disease. Those who reach the age of 85 have a 50 percent chance of having the disease. One prominent researcher expresses hope for treatment. He sees light at the end of the tunnel, but obviously we are not yet through the tunnel.

In 1907, Alois Alzheimer, a German neuropathologist, stated that the disorder was a disease and not just a function of aging. His autopsy of Frau Auguste D. revealed parts of brain cells twisted into weird tangles and deposits of sticky protein gunk now known as amyloid plaques.

A vaccine that dissolves amyloid plaques is being tested on mice. Hopefully, test trials with humans will begin soon. Scientists are also studying how a variety of substances including inflammatory medications may impact Alzheimer's. Two drugs that temporarily relieve symptoms in some people are already marketed.

Happier, healthier persons may decline more slowly. A variety of environmental factors may influence disease progression. Every time we stimulate our minds we form new brain connections that will delay the onset of symptoms.

Roy and Susan are volunteers in a study that examines how caregiver support impacts disease progression. For example, will Roy do better if Susan is doing well emotionally and physically? The couple intends to live fully as long they can. There is much that they still enjoy doing together.

Interpretive Comments

Alzheimer's disease strikes about 3 percent of the world's population by age 75. This video suggests that people who reach age 85 have a 50 percent chance of developing the disease. Alzheimer's represents a progressive and irreversible brain disorder marked by slow deterioration of memory, reasoning, language skills, and finally physical functioning. More specifically, the disorder is characterized by a loss of brain

cells and a deterioration of the neurons that produce the neurotransmitter acetylcholine. Without this critical chemical messenger, memory and thinking suffer. The clip indicates that researchers are attempting to develop drugs that will dissolve the amyloid plaques that characterize the disease, as well as drugs that will block proteins from aggregating into plaques.

It can take 5 to 20 years for the disease to run its course. Following impairment in thinking and memory, the person becomes emotionally flat, disoriented, and finally mentally vacant. Eventually, the loss of personal identity results in a kind of living death. Those who remain physically and mentally active are at less risk for developing this most feared brain ailment.

Discussion Questions

1. How does a biopsychosocial perspective contribute to an understanding of Alzheimer's disease?
2. What do you believe to be the most challenging or painful aspect of this disease?
3. What would life be like for you without memory?

Old Age: Thinking and Moving at the Same Time

Length: 2:40 minutes

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

Relevant Lecture/Textbook Topics:

- ▶ Development

Description

This video provides a good introduction to the physical and cognitive changes that occur in later life. It examines whether the aging process changes the way people allocate their mental resources.

In a study conducted in Berlin, adults over the age of 60 navigate an obstacle course while memorizing a list of words they hear through headphones. Lines on the track and handrail assess how steadily research participants walk. After they complete the course, volunteers must remember the words in the order in which they heard them.

Researcher Paul Baltes describes how he conceived the design of the study. Observing older people walking up a hill in the Swiss Alps, he noticed they stopped conversing when they approached some rocks on the path. They started talking again once they had successfully navigated around the obstacles. When we are young, Baltes reasoned, our physical movements are automatic. However, as we age these same movements require more cognitive support.

In his laboratory study, Baltes compares the volunteers’ ability to walk and memorize simultaneously with their ability to simply memorize. When they are walking, older people have much greater difficulty remembering the words. When they are only memorizing, and thus have nothing to distract them, their recall is almost perfect. Younger adults easily perform both tasks simultaneously.

If older people want to optimize walking, suggest Baltes, they need to allocate their mental resources to walking. On the other hand, if they want to memorize, they need to allocate their resources to memorizing. The worst strategy, he concludes, is to switch back and forth. In that case, neither activity will be performed well.

Interpretive Comments

The finding that older adults allocate more mental resources to automatic skills is consistent with research findings on the physical and cognitive changes that accompany aging. Aging slows neural processing. This lengthens reaction time and older people become more prone to accidents. Muscle strength and stamina diminish noticeably, and thus the navigation of obstacles while walking becomes more challenging.

Older people require a bit more time to solve perceptual puzzles and even to remember names. Research on cognitive changes suggests that the ability to recall new information declines during early and middle adulthood. However, the ability to recognize new information does not. Fluid intelligence—the ability to reason speedily and abstractly—declines in later life, but crystallized intelligence—accumulated knowledge and skills—does not.

Discussion Questions

1. What does this program reveal regarding our different levels of information processing?
2. In addition to walking, which automatic skills may require more mental resources as we age?
3. Why might “use it or lose it” be particularly sound advice for older adults?

Healthy Aging: The Power of Positive Thinking

Length: 7:35 minutes

Source: “70 is the New 50” *Sunday Morning* (CBS News)

Relevant Lecture/Textbook Topics:

- ▶ Development

Description

What fosters healthy aging? What promotes longevity? Worldwide, life expectancy has increased dramatically over the past several decades.

This clip opens with elderly male residents of St. George, Utah engaged in a lively game of softball. Their active involvement, mobility, and optimism suggest that attitudes toward aging are changing. A *New Yorker* cartoon captures this change by suggesting that age 70 is the new 50.

Robert Butler, President of the International Longevity Center, describes the aging population as healthier, more robust, and more vigorous than in the past. The 78-year-old Butler puts in an 80-hour work week and works out with a physical trainer. The program suggests that new drugs to combat high blood pressure and high cholesterol have helped promote longevity.

Anita provides an impressive model for living the golden years. Her action-packed day begins with a swim in the pool and continues with an art class. She then returns home to care for her horse Goldie, serenades her husband at the piano, and finally fixes dinner for both of them. Although 72-year-old Anita has serious heart disease, she feels young and is determined to show that “getting older means getting better.”

84-year-old Jack and 76-year-old Marie maintain their youth by ballroom dancing three times a week. Marie claims she has the same energy she had 40 years ago. Jack, who has a history of heart problems, describes the activity as a delightful way to exercise. His physician believes that, in addition to regular visits to the doctor, high self-esteem, love, spirituality, and physical exercise promote healthy aging.

Staying physically active seems to be essential to a full and healthy life. Research suggests that exercise also wards off mental decline.

Interpretive Comments

Regular physical exercise provides a variety of benefits. It strengthens muscles and bones and enhances energy. By helping to prevent obesity and heart disease it promotes longevity. Physical exercise also stimulates brain cell development and new neural connections, which are very likely the result of increased oxygen and nutrient flow. Small wonder that active older adults tend to be more mentally agile. It also helps to explain why, across many studies, sedentary older adults assigned to aerobic exercise programs have shown enhanced memory and sharpened judgment. Researchers have found that physically active, non-obese people are at less risk for developing Alzheimer’s disease.

Studies of well-being across the life span indicate that positive feelings grow after midlife, while negative feelings tend to subside. Older adults are more likely to use words that convey positive emotion and to pay less attention to negative information. Most older people find that, on balance, life has been good.

Studies find that seeking work and leisure activities that engage our skills, exercising regularly, giving priority to close relationships, being grateful for what we have, and nurturing spirituality promote well-being and life satisfaction.

Discussion Questions

1. What are the important factors that contribute to a long life?
2. What do you think are the most important factors that contributed to the psychological well-being of the older adults featured in this video?
3. Why is physical exercise so important in later life?

Sensation and Perception

Pickpockets, Placebos, and Pain: The Role of Expectations

Length: 4:20 minutes

Source: “Touch” *Human Senses* (BBC Motion Gallery)

Relevant Lecture/Textbook Topics:

- ▶ Sensation
- ▶ Perception
- ▶ Research Methodology

Description

This video provides an excellent demonstration of how our expectations influence our sensations and perceptions, particularly our experience of pain. It also introduces student to the placebo effect.

The clip opens with a magician who is able to remove the wristwatches of passersby without their detecting the loss. In each case, he focuses their attention on a card trick he performs using his left hand, which they grasp with their right hand. With his right hand, the magician removes the victim’s watch without their feeling it. All the victims are amazed when he returns the watch they never realized was missing. Clearly, at any one moment our attention focuses on only a limited aspect of all we are experiencing.

Researcher Tony Dickenson conducts a laboratory experiment assessing research participants’ experience of pain. In one condition, the participants receive a tablet (actually a sugar pill) that they are told will make them more sensitive to electric shock. Results indicate that they report pain even at low levels of shock. In a second condition, participants are told that the tablet is a painkiller. In contrast to the first groups, they are able to tolerate significantly higher levels of shock. Expectations, concludes Dickenson, play a significant role in our experience of pain.

Interpretive Comments

Selective attention means that at any given moment our awareness focuses on only a limited aspect of all we are experiencing. By focusing the observers’ attention on a card trick, the magician is able to remove their watches without their noticing. Selective attention is also evident in studies of inattention blindness (failing to see visible objects when our attention is directed elsewhere) and studies of change blindness (failing to recognize changes in faces and clothing after brief interruptions).

The experience of pain can vary widely, depending not only on our physiology but also on our expectations. Told that a medication will make them more or less sensitive to electric shock, research participants actually report experiencing more or less pain. More generally, believing we are getting treatment can boost our moods, relax our bodies, and relieve our symptoms. Similarly, distracting people from a noxious stimulus may prove to be an effective strategy for reducing pain.

The placebo effect refers to any effect on behavior caused by the administration of an inert substance or condition that is assumed to be an active agent. In drug evaluation studies, a double-blind procedure is

typically used. In it, both the research participants and research staff are ignorant about whether the research participants have received the treatment or a placebo.

Discussion Questions

1. What are the advantages and disadvantages of selective attention?
2. What do Tony Dickenson's research results tell us about the nature of pain?
3. How can researchers tell whether new drugs have real or only placebo effects?

Coping with Pain

Length: 5:40 minutes

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

Relevant Lecture/Textbook Topics:

- ▶ Sensation
- ▶ Perception
- ▶ Pain Management

Description

Pain has often been poorly managed. Today medical facilities are required to assess and control patients’ pain or risk losing their accreditation. Pain is difficult to define. Ultimately, it is whatever the experiencing person claims to be painful.

Anesthesiologists at the University of California, San Francisco (UCSF) hospital attempt to eliminate postoperative pain. Indeed, some patients come out of surgery pain free. If patients remain in pain, recovery occurs more slowly. Those who resist medication must be encouraged to take it.

The failure to treat pain may result in it becoming permanent. Untreated pain can produce changes in the spinal cord, which then continues to send pain signals to the brain long after the distress should have ended. The goal is to eliminate pain messages being sent to the spinal cord before this process gets started.

Pamela Palmer, director of UCSF’s Pain Management Center, reports that those who experience chronic pain are often most distressed by how it interferes with normal living. Bob, a former physical education instructor, describes how the harrowing pain that followed surgeries for his deteriorating spine disrupted every aspect of his life—from his relationship with his wife to getting dressed in the morning.

Dozens of pain medications provided Bob with little relief. Dr. Palmer took him off from most of the medications and implanted a pain pump under his skin. The pump delivers a pre-programmed level of morphine directly to the site of his pain. Now, Bob remains clear-headed and gets more relief with less morphine.

Management of excruciating spinal pain may demand not only a morphine pump but also other strategies like spinal nerve blocks, physical therapy, psychotherapy, biofeedback, and acupuncture. Ironically, friends and relatives may not always be supportive. Susan reports losing her marriage over her use of morphine and other pain management techniques. Her husband viewed her reliance on these techniques as evidence of weakness.

Interpretive Comments

The function of pain is to inform us that something has gone wrong. Those few who are born without the ability to feel pain may experience severe injury without knowing and attending to it. In fact, such people usually die by early adulthood. Chronic pain, however, is like an alarm we cannot turn off. Both a physical and psychological phenomenon, it is treated with drugs (for example, the morphine pump described in this video), surgery, acupuncture, electrical stimulation, massage, exercise, hypnosis, relaxation training, and thought distraction.

Gate control theory provides one explanation for pain. It states that the spinal cord contains a neurological “gate” that either blocks pain signals or allows them to pass on to the brain. The “gate” is opened by the activity of pain signals traveling up small nerve fibers and is closed by activity in larger fibers or in information coming from the brain. This theory recognizes that the pain system is not located in a simple neural cord running from a sensing device to a specific area of the brain. Nor is there simply one type of stimulus that triggers pain or one special receptor for pain. Research indicates that, at low intensities, the stimuli that produce pain also produce other sensations such as warmth, coolness, smoothness, or roughness.

Discussion Questions

1. Would feeling no pain be a good or bad thing? Explain your answer.
2. How does society view people who complain of chronic pain?
3. This video clip suggests that psychotherapy is one strategy for treating pain. What does that suggest about the nature of pain?

“Supertasters”

Length: 1:50 minutes

Source: “Taste” *Human Senses* (BBC Motion Gallery)

Relevant Lecture/Textbook Topics:

- ▶ Sensation
- ▶ Perception

Description

Taste researcher Linda Bartoshuk of Yale University notes that people live in different taste worlds. By painting the tongue with a blue food coloring, she is able to determine a person’s sensitivity to taste. The dye causes the structures that hold individual taste buds to stand out as pale dots against a dark background. The appearance of more dots indicates greater taste sensitivity.

Those with the most dots are called “supertasters.” They can have up to 100 times more taste buds than other people. Supertasters tend to dislike the taste of alcohol because it is both bitter and burns the tongue. Similarly, they dislike many vegetables because their tongues are especially responsive to bitter tastes.

Because of their heightened taste sensitivity, supertasters tend to be pickier about what they eat. Things do genuinely taste different. A non-taster’s and a supertaster’s facial reactions to a bitter chemical reveal this difference. Whereas the non-taster shows little response, the supertaster finds the substance intolerable and immediately spits it out. Each of us, claims the narrator, seems to have a built-in limit to how strong a taste we can tolerate in our food.

Interpretive Comments

Heightened sensitivity to taste seems to be due, at least in part, to a greater number of the mushroom-like structures called fungiform papillae on the tongue. Each little bump houses hundreds of taste receptor cells. There are more receptors at the tip of the tongue than at the middle. Some of these receptors respond mostly to sweet-tasting molecules, others to salty-, sour-, or bitter-tasting ones. The blue food dye reveals differences in papillae density.

One of the best-documented genetic effects in taste involves people’s ability to taste the bitter substance phenylthiocarbamide, or PTC. People who can taste PTC are described as “tasters” and those who cannot are called “non-tasters.” More recent studies have substituted PROP (6-n-propylthiouracil) for PTC in assessing taste sensitivity. In part, this is because it lacks the sulfurous odor of PTC. Using PROP, Linda Bartoshuk divides people into supertasters (25 percent find PROP extremely bitter), medium tasters (50 percent report PROP as moderately bitter) and non-tasters (25 percent find PROP to be tasteless).

Discussion Questions

1. What are the possible advantages and disadvantages of being a supertaster?
2. What implications of this research might there be for parental instructions to young children to “clean their plates”?
3. Are our taste preferences “hard-wired” or learned? Give some examples.

The “Red Hot” Chili-Eating Contest: Sensitivity to Taste

Length: 4:35 minutes

Source: “*Taste*” *Human Senses* (BBC Motion Gallery)

Relevant Lecture/Textbook Topics:

- ▶ Sensation
- ▶ Perception
- ▶ Thrill Seeking

Description

A chili-eating contest in the American Midwest raises important questions about our taste preferences as well as individual differences in taste sensitivity. This program can also be used in a classroom discussion of sensation- or thrill-seeking.

Researcher Paul Rozin has studied why we return to foods that are innately unpleasant. For example, the champion of the contest is back to defend his title. He reports his record is 22 chili peppers.

The contest begins and the narrator reports how the first bite stimulates pain receptors in his tongue. The bitter chemical capsaicin produces a burning sensation that seems to radiate through other parts of the body. An increase in blood flow turns face and neck red. Perspiration flows freely. Yet people repeatedly return to eat the peppers. This time the winner eats a total of 24.

Paul Rozin reports that people in every culture perform activities that are painful or innately unpleasant. For some, it is a roller coaster ride. The thrill of such activities, suggests Rozin, may convince you that you are above your body. Ultimately, however, thrill-seekers must feel safe or they will not enjoy the activity. We may come to like chili peppers because they allow us to push our limits without doing any lasting harm to our bodies. Rozin reports that people show their greatest liking for the pepper that falls just below the one they find intolerable.

Interpretive Comments

Capsaicin is the active component in chili peppers that produces their burning sensation. As the video suggests, supertasters are likely to experience the sensation more acutely (see the video “Supertasters”). Capsaicin is sometimes added to foods to give them greater pungency or spice. Many people experience pleasure and even euphoria while eating capsaicin-flavored foods. Some have linked this thrill to a possible release of endorphins.

Marvin Zuckerman has argued that individuals differ in the amount of stimulation they need or want, and hence in their “sensation-seeking” behaviors. Researchers have identified thrill-seeking, experience-seeking, disinhibition, and susceptibility to boredom as different forms of sensation-seeking. Frank Farley has applied the term “Type T personality” (for thrill-seeking) to those who seem to need a life filled with constant stimulation and risk-taking. Sensation- or thrill-seeking people have distinctly different brain chemistry.

Discussion Questions

1. What other activities are similar to chili-eating contests?
2. What are the benefits and risks of thrill-seeking?
3. How does the social setting impact chili eating?

Synesthesia: The Man Who Tastes Words

Length: 6:45 minutes

Source: “*Derek Tastes of Ear Wax*” *Horizon* (BBC Motion Gallery)

Relevant Lecture/Textbook Topics:

- ▶ Sensation
- ▶ Perception

Description

This clip is a case study in synesthesia in which stimulation of one sense leads to the experience of another.

James not only hears words, he tastes them. He runs a pub and the names of different customers elicit different flavors. James has no control over the links he experiences between specific words and specific tastes. Interestingly, the foods that customers order can elicit tastes different from that of the food itself. In everyday conversation, James is bombarded with flavors. As he cooks food for his customers, its odor may compete with the flavors elicited by the words of their ongoing conversation. For example, while frying sausage and eggs, James may find that the conversation elicits the taste of yogurt. Clearly, James finds the conflict to be distressing. He escapes to fresh outdoor air.

The narrator reports that synesthesia has baffled the scientific community for decades. No one could believe it was real. After establishing a genetic basis for the phenomenon, researchers are now searching for environmental influences that may shape each person’s synesthesia.

Neuropsychologist Jamie Ward has been studying James for two years. He has found that James consistently links the same words to the same tastes. Ward searches for a pattern that might explain how the links were first formed. In his study, he finds that similar sounding words elicit much the same taste in James. For Ward, this structure provides clues to how the synesthesia formed. He discovers that the links James has formed between words and tastes are of tastes James experienced in childhood. James does not have linkages between words and foods he tasted only in adulthood. In short, the associations he has formed seem to be part of the process of vocabulary acquisition in early life. Ward suggests that an unusual chaining occurred between the sounds of words and both the names and tastes of food in James’ childhood.

Interpretive Comments

Synesthesia is the extraordinary sensory condition in which a stimulation of one modality leads to the perceptual experience in another. Literally, the term means “to perceive together.” Although estimates vary, one of the most recent estimates places the occurrence at 1 in 2000, with females outnumbering males 6 to 1. The phenomenon seems to run in families, which leads some researchers to conclude it has a genetic basis. Seeing specific letters or numbers within specific colors is the most common form of synesthesia. In contrast, tasting sounds (or words) is extremely rare. Neurologist Richard Cytowic describes the case of Michael Watson who feels shapes when he tastes or smells food. Do most synesthetes find their experience to be distressing? Simon Baron-Cohen states, “If you ask synesthetes if they’d wish to be rid of it, they almost always say, ‘no.’ For them, it tells what normal experience is like. To have that taken away would make them feel like they were being deprived of one sense.”

Discussion Questions

1. Do you think James would choose to be free of his synesthesia?
2. Would you like to experience synesthesia? Why or why not?
3. How might a biopsychosocial perspective be important in understanding this phenomenon?

The Man Who Cannot Recognize Faces

Length: 6:50 minutes

Source: “*The Mind’s Eye*” *Brain Story* (BBC Motion Gallery)

Relevant Lecture/Textbook Topics:

- ▶ Sensation
- ▶ Perception
- ▶ Neuroscience

Description

This remarkable case study can be used to introduce and distinguish between the processes of sensation and perception. It highlights how perception is ultimately accomplished in the brain.

Lincoln is unable to recognize faces. Thirty years ago, a car accident produced isolated brain damage that left him “face” blind. Lincoln reports that at times the inability to recognize those who should be familiar to you is scary.

Because he is not blind, Lincoln reports that others have difficulty understanding his inability to recognize faces. Typically, we seem to think that to *see* is to *understand*. Lincoln’s wife reports that at times it may seem that her husband recognizes her, but that is only because they have scheduled to meet at a specific place and time. Lincoln agrees. Sitting alone in the house together is quite different from locating his wife in a supermarket where there are dozens of different female faces.

When they are projected on a screen, Lincoln has no difficulty recognizing common objects like a key, an apple, or a kitchen place setting. In contrast, the picture of a famous female face baffles him. In fact, he cannot tell whether the female is young or old. Only after given additional biographical information does he successfully guess who she is.

Faces do not all look the same to Lincoln. Rather, no face is recognizable. He sees individual features of faces, but fails to see the totality. His brain does not allow him to put the puzzle pieces together. Even when shown a picture of his own face, Lincoln does not recognize himself.

Lincoln’s case reveals how our brains process faces. Each time we look at another person, a special facial recognition system is activated. Recognizing faces seems to be such a demanding and important part of our lives that an entire subsystem of the brain is devoted to the task. This part of the brain seems to play no role in our recognition of other objects.

Interpretive Comments

Lincoln’s case demonstrates how perception is ultimately accomplished in the brain. Sensory information is received, but it is not interpreted accurately. Lincoln’s face blindness is known as prosopagnosia, which generally results from damage to a particular part of the lower temporal cortex. Some people with this disorder are unable to even distinguish different faces.

Clearly, Lincoln is able to tell whether photos of people’s faces are the same or different. But, he cannot identify specific individuals. While some who suffer from prosopagnosia may have difficulty recognizing other visual objects, some show a relatively normal ability to recognize individual members of other

object categories. Peter Gray cites the example of one sheep rancher who could not recognize people by face after he suffered a stroke. However, this rancher could still recognize individual sheep. This finding, as well as the fact that different people may demonstrate different types and levels of impairment in facial recognition, has led some researchers to theorize that there may be a specific face perception system in the brain.

Discussion Questions

1. What is the relationship between sensation and perception?
2. What does this case tell us about the brain's role in perception?
3. What specific challenges is Lincoln likely to encounter because of his inability to recognize faces? How do you think he can best compensate for his limitation?

States of Consciousness

Automatic Skills: Disrupting a Pilot's Performance

Length: 4:00 minutes

Source: "Are You Superhuman?" (BBC Motion Gallery)

Relevant Lecture/Textbook Topics:

- ▶ States of Consciousness
- ▶ Conscious Versus Unconscious Processing
- ▶ Learning and Memory

Description

This video provides a helpful introduction to the different levels at which we process information. It can also be presented in a discussion of successful encoding. Tasks that initially require attention and effort become automatic with experience and practice.

Flight simulators are typically used for training purposes. In this video, researchers use a simulator to assess how interference with pilots' unconscious thought processes affects their performance. Novice as well as veteran pilots are research participants in the study.

In the first part of the study, the novice pilot flawlessly handles a routine run. Next, he is asked to perform the same task while counting backwards to the tick of a metronome. In spite of the additional mental load, he flies well and reports that the task was not as difficult as he had anticipated. The conscious task of counting did not seriously interfere with the unconscious task of flying.

In the next assignment, the novice pilot must fly the plane while describing what he is doing—that is, he must describe his automatic, unconscious thought process. This task proves more disruptive than the one in which he had to count backwards. It interferes with his unconscious processing.

Interestingly, when the experienced pilot attempts to explain what he is doing while flying, he finds the task even more distracting and disruptive. After 11 years in the cockpit, his flying skills are so imbedded in his unconscious mind that explaining what he is doing significantly slows him down. However, this is precisely what makes him a great pilot. To veteran fliers, piloting a fighter aircraft is like driving a car.

Interpretive Comments

Research indicates that we process information on two levels. Our conscious processing is serial and quite slow. The focused state of awareness enables us to solve novel problems and to communicate with one another (even while counting backwards to the tick of a metronome!). Unconscious processing occurs simultaneously on many parallel tracks. It allows us to perform well-learned tasks automatically. The pilots perform the well-learned flying task automatically, much as we type on a keyboard without consciously attending to the location of the letters. For the pilots, trying to explain how they fly produces the same interference that we would experience if we had to verbalize the location of specific letters as we typed them.

Discussion Questions

1. What tasks that once required conscious effort do you now perform automatically?
2. What are the possible benefits and limits of unconscious processing?
3. How is the unconscious processing described in this video different from Freud's notion of the unconscious?

The Effects of Sleep Deprivation: Three Brave Souls

Length: 6:00 minutes

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

Relevant Lecture/Textbook Topics:

- ▶ States of Consciousness
- ▶ Sleep Disorders

Description

Before or after showing this program, ask your students if they often feel sleep-deprived. What are the major symptoms and consequences of sleep deprivation?

Three young adults, two males and one female, agree to participate in a study of sleep deprivation. In the 60 hours that they will go without sleep, researchers will assess their judgment and ability to concentrate. The electrical activity of the brain as measured by the electroencephalograph (EEG) will also provide information on the participants’ level of alertness. A simulated driving test will assess their ability to stay on the road.

As the participants watch television the first night, a security guard and a student team make certain they remain awake. A variety of activities keep the volunteers going. As morning breaks, the volunteers are feeling the effects of a sleepless night. Vigorous exercise helps them to stay awake and keep warm.

The participants do not look forward to the second night. They plan to help each other stay awake. Together, they again engage in stimulating physical activity. During the middle of the night, they appear exhausted. Dawn breaks and one volunteer describes the night as “absolute hell.” For the last four hours, the participants could only stay awake by standing up and walking around.

During the last round of tests, the volunteers are nodding off. Brain electrical activity as assessed by the EEG indicates that one volunteer is in “micro” sleep. While taking the simulated driving test, another volunteer drives off the road.

Sixty hours have passed and the participants can finally sleep. They do so in the laboratory so that the researchers can assess their rate of recovery. After twelve hours, the alarm rings and the volunteers report having enjoyed restful sleep. All three are revitalized and tests suggest that two of the three are virtually back to normal in terms of reaction time and judgment.

Interpretive Comments

Sleep researcher William Dement reports that 80 percent of students are “dangerously sleep deprived.” He bluntly states that a large sleep debt “makes you stupid.” Sleep deprivation results in college students having greater difficulty studying and being more prone to error. Those who suffer sleep loss show diminished productivity, irritability, and fatigue. As this demonstration suggests, sleep deprivation leads to slower reaction times, and thus drivers become more susceptible to accidents.

Sleep loss seems to suppress the disease-fighting immune system and may help explain why people who sleep 7 to 8 hours per night tend to outlive those who are chronically sleep-deprived. Chronic sleep debt

also changes metabolic and hormonal functioning in ways that mimic aging, and it predisposes us to a variety of health problems including obesity and hypertension.

Discussion Questions

1. What factors in contemporary society make people vulnerable to suffering from sleep deprivation?
2. Are you sleep-deprived? If so, how does it affect your daily living?
3. Are you a morning person (a lark) or an evening person (an owl)? In what ways does being a lark or an owl make a difference?

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?

Hypnosis: Medical and Psychological Applications

Length: 5:40 minutes

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

Relevant Lecture/Textbook Topics:

- ▶ States of Consciousness
- ▶ Hypnosis

Description

Before showing this video segment, you might ask your students if they have had any experience with hypnosis. Have they reached any conclusions about this state of consciousness?

Although old feature films may portray hypnosis as hocus pocus, the technique has become an important part of modern medicine. For example, surgeons may use hypnosis to relax patients who are undergoing minor but often very painful surgery. General anesthetic is not an option and local pain medication has its limits, especially with patients who are very anxious.

Although hypnosis has long been used to help people lose weight and quit smoking, typically it has not been a part of traditional hospital medicine. However, this is changing. Research has indicated that hypnosis makes surgical procedures safer, more comfortable, and more efficient. Hypnotized patients need much less medication and experience fewer side effects.

Billy was burned in a gasoline fire. A psychologist uses hypnosis to help him tolerate the pain of bandage removal. Excellent success in treating burn victims with hypnosis led the National Institutes of Health (NIH) to support research on virtual reality hypnosis. Just before bandage change, patients put on headsets and travel through a three-dimensional canyon in which all is cool and peaceful. Early research findings suggest the technique is as effective as actual hypnosis in relieving pain.

A majority of doctors now refer patients for hypnosis when they believe it to be appropriate. Pregnant women are taught to use hypnosis on themselves in preparation for labor. Finding that the technique is effective, the women are now bringing the strategy to the attention of their doctors. New mother Jody reports that, with her husband Larry helping her to remain hypnotized during labor, the experience was pain free.

Hypnotist advocate David Spiegel hopes that hypnosis will become the first, rather than the last, strategy that doctors and patients turn to in alleviating pain. The technique is easy to perform, effective, and makes patients feel good about themselves.

Interpretive Comments

Hypnosis is a heightened state of suggestibility that clearly can relieve pain. In fact, approximately 10 percent of us can become so deeply hypnotized that major surgery can be performed without anesthetic. Furthermore, research suggests that 50 percent of us can gain at least some pain relief from hypnosis.

Because of the inhibition of pain-related brain activity, patients who are hypnotized recover from surgery more quickly, require less pain medication, and leave the hospital sooner. Posthypnotic suggestions have

helped to alleviate headaches and to reduce obesity. On the other hand, hypnosis has been far less successful in treating drug, alcohol, and smoking addictions.

Some explain hypnotic pain relief in terms of dissociation—that is, a split between different levels of consciousness. Presumably hypnosis dissociates the sensation of the pain stimulus from the emotional suffering that defines our experience of pain. An alternative explanation argues that hypnotic pain results from selective attention and thus from distraction. For example, some research indicates that relaxation and distraction work as well as hypnosis in relieving the pain associated with childbirth.

Discussion Questions

1. What does this program tell us about the nature of pain?
2. Is hypnosis a more effective strategy than simple distraction for managing pain?
3. Do you believe hypnosis may be more effective with some forms of pain than others? Why or why not?

Memory

An Amazing Memory

Length: 9:45 minutes

Source: *60 Minutes* “Brain Man” (CBS News)

Relevant Lecture/Textbook Topics:

- ▶ Memory
- ▶ Intelligence

Description

This case of extraordinary memory provides a good introduction to the topic and can be juxtaposed with cases of memory loss. Indeed, the exploration of memory’s extremes has helped investigators understand how memory works. The example of the savant in this video segment also raises important questions about the nature of intelligence and the controversy over whether it consists of one ability or many.

Daniel is a 27-year-old math and memory wizard. Give him any date in history and he can tell you the day of the week on which it occurred. Give him a complex multiplication problem and he immediately provides the correct answer. Daniel is a savant who is articulate and self-sufficient. Shown a long numerical sequence only once, he can correctly recite it both backward and forward.

Daniel first made headlines at Oxford University when he correctly recited 22,514 digits of pi. It took him over five hours but he performed the feat without a single mistake.

Researcher Rajan Mahadevan is amazed at Daniel’s intelligence, his ability to interact socially, and perhaps most importantly his capacity to introspect on his unique ability. Daniel’s description of how his own mind works could prove invaluable to scientists. Mahadevan believes that a savant’s unique ability may actually result from brain injury. Indeed, at the age of four, Daniel suffered a massive epileptic seizure. He developed a rare crossing of senses known as synesthesia. He began to see numbers as shapes, colors, and textures. Thus, a sequence of numbers now forms a landscape in his mind. Some numbers, he claims, are beautiful while others are ugly.

At an early age, Daniel was diagnosed with Asperger’s syndrome, a mild form of autism. Social relations became difficult and Daniel retreated into the safety of numbers. However, he did become a social isolate. He believes his large family may have fostered his ability to adapt. Today, he runs a successful online business. Still, social anxiety keeps him close to home.

Mahadevan believes that Daniel may provide important insights into the working of the human brain. Although Daniel refuses to become what he calls a “performing seal” who makes money from his unique ability, he has written a book about his experiences. Ultimately, he hopes that he can share with others the beauty and joy of numbers.

Interpretive Comments

Daniel’s description of how he sees numbers as shapes, colors, and textures provides an excellent opportunity to discuss how encoding imagery aids effortful processing. We experience greater ease in

remembering pictures than in remembering words. Research shows that we remember concrete words that lend themselves to visual mental images better than we remember abstract, low-image words. Imagery is also an important component of many memory aids. Mnemonic devices like the method of loci or the peg-word system rely largely on visual representations and associations to boost recall.

About 4 in 5 people with savant syndrome are males and many also have autism, a developmental disorder that afflicts more males than females. People who exhibit exceptional skill in one area suggest that we do not have a single, general intelligence. Instead we have multiple intelligences, each relatively independent of the other. Howard Gardner identifies eight intelligences including linguistic, logical-mathematical, musical, spatial, bodily-kinesthetic, intrapersonal, interpersonal, and naturalist.

Discussion Questions

1. How might Daniel's synesthesia contribute to his remarkable memory?
2. Does Daniel's case provide any clues as to how we may improve our own memories? Explain your answer.
3. Does intelligence consist of one general ability? Or, does it consist of several specific abilities? Explain your answer.

A Pill for Forgetting

Length: 8:00 minutes

Source: *60 Minutes* “The Memory Pill” (CBS News)

Relevant Lecture/Textbook Topics:

- ▶ Memory
- ▶ Stress and Health

Description

Classroom discussion of how memories are stored in the brain could include interesting research on how stress hormones affect memory. The possibility that one could take a pill to weaken memories of a painful experience has alarmed critics but filled trauma victims with hope.

Beatrice, a Boston subway conductor, describes the horror of seeing a man attempt to commit suicide by jumping in front of her train. She went to a hospital emergency ward in extreme psychological distress. Psychiatrist Roger Pitman has treated patients suffering from post-traumatic stress disorder (PTSD) and whose memories have become incapacitating. He enrolled Beatrice in a study in which trauma victims were given propranolol, a drug used to treat high blood pressure. Findings suggest that it may also weaken memory.

Research indicates that the stress hormone adrenaline can affect the strength of our memories. James McGaugh demonstrates how a rat’s memory is enhanced if it is injected with adrenaline. McGaugh maintains that the same stress hormone strengthens memories in humans. Additional research indicates that propranolol blocks adrenaline’s memory-enhancing effects in rats.

Based on these findings, Pitman recruited patients for a pilot study. Catherine was one participant who had been terrified when hit by a bicyclist on a Boston street. Catherine took propranolol four times daily for 10 days. Three months later, she showed no physiological signs of PTSD. In contrast, control participants given a placebo continued to show signs of the disorder.

These findings led the National Institutes of Health (NIH) to fund a larger study. But then the President’s Council on Bioethics condemned the study, claiming that rewriting memory undermines our true identity. Catherine counters with this: Why should people be forced to live with horrible memories?

Another concern is that the drug might be used too widely. For example, some may seek to erase their painful recall of the breakup of a relationship, or even of an embarrassing moment at a party. Such experiences, and our memories of them, may in the long run make us better people.

Interpretive Comments

Researcher James McGaugh (featured in this video segment) states that, “stronger emotional experiences make for stronger, more reliable memories.” Flashbulb memories, in which we maintain very clear memories of exciting, significant events, may be based in emotion-triggered hormonal changes. Our first kiss, our high school graduation ceremony, or the sudden death of a close relative might be vividly remembered years after its occurrence—as if the experience has been burned in.

In class, you might also note the limits of stress-enhanced memory. Prolonged stress, such as sustained abuse, can corrode neural connections and shrink the hippocampus, which is essential for laying down memories. In addition, when stress hormones are flowing, older memories may be blocked. For example, under the stress of public speaking we may suddenly forget what we planned to say.

Discussion Questions

1. Share a specific flashbulb memory from your past. What specific emotions did you experience at that time?
2. Do you believe that the recall of painful experiences can make us better people? Why or why not?
3. Should a medication that blocks memory be regulated? Or, should it be available as an over-the-counter drug?

Thinking, Language, and Intelligence

How Intelligent Are Animals?

Length: 5:40 minutes

Source: “*Animal Intelligence*” *Sunday Morning* (CBS News)

Relevant Lecture/Textbook Topics:

- ▶ Animal Thinking and Language

Description

This video introduces the remarkable cognitive capacities of animals. It discusses animals’ capacity to communicate and thus can be use to introduce the controversy surrounding animal language.

Eugene Linden believes that his study of animal intelligence indicates that the divide between humans and other animals is smaller than we think. Animals can use and even create tools. Studies indicate that both apes and dolphins understand words as well as the meaning of complex sentences and ideas.

Animal researchers and zookeepers have been key resources for Linden’s appreciation of animal intelligence. One zookeeper describes elephants that seem to cooperate intelligently in their own foot care, as well as engage in meaningful communication. A veteran observer of killer whales claims that this species also has the capacity to communicate and suggests that whale families even have their own dialects. She uses a hydrophone to record whale communication and identify the specific sounds associated with specific activities. A family of whales, she claims, was instrumental in directing her to safety after she became lost in a dense fog.

Orangutans also seem to demonstrate complex mental abilities. They are notable for being escape artists. They have also shown the capacity to tolerate painful needles, apparently because they recognize that the needles are good medicine. No orangutan is more legendary than the now deceased Fu Manchu. He hid wire in his mouth until just the right time to pick the lock on his enclosure. Indeed, all manner of thought has been observed in all manner of animals.

Interpretive Comments

Animals show an amazing capacity for thinking. Research indicates that monkeys form concepts and pigeons can sort objects based on similarity. Chimpanzees create and use tools and demonstrate the capacity for insight. In addition, chimpanzees, orangutans, and dolphins invent customs and pass them on to their peers and offspring. The great apes have demonstrated capacities for reasoning, self-recognition, empathy, imitation, and understanding another’s mind. Some animal researchers have estimated their mental accomplishments as similar to that of 2-year-olds.

Clearly, animals—including bees, whales, and parrots—communicate. Several species of apes have learned to communicate with humans by signing and pushing buttons wired to a computer. However, research findings indicate limitations to animal language. Only humans master the verbal or signed expression of complex syntactical rules.

Discussion Questions

1. What is intelligence?
2. Do you believe animals are capable of language? Why or why not?
3. Do humans differ from other animals in important ways? Explain your answer.

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?

Locking Away The “Feeble-minded”: A Shameful History

Length: 7:55 minutes

Source: “*Deep Dark Secret*” 60 Minutes (CBS News)

Relevant Lecture/Textbook Topics:

- ▶ Intelligence
- ▶ Nature–Nurture Issues
- ▶ Ethical Issues

Description

You may want to include this video in your classroom discussion of the history of intelligence testing. Eugenics proposed measuring human traits and using the assessments to encourage only smart and fit people to reproduce.

At its peak, Fernald School confined 2500 people behind its walls. All were labeled “feeble-minded.” Some of its victims are still living. Fred, now 63, lived 11 years at Fernald and states that for a long time he believed he belonged there and actually thought he should never have been born.

Fernald was part of the eugenics movement of early 20th-century America. People who were considered genetically inferior were separated from the rest of society to ensure they would not reproduce. Presumably, the practice was good for the human race and good for America. Sadly, one critic notes, at least half of Fernald’s residents would have functioned well in today’s world.

Fred was 8 years old when his mother died and the state of Massachusetts committed him to Fernald. He was diagnosed as a “moron,” although tests showed that his intelligence was in the normal range. Children were kept in packed dormitory rooms. They received little education and even less affection.

Joe was abused as a child and, at age 8, was abandoned by his father in a hallway at Fernald. He had no idea where he was or that he, a normal child, was now labeled a moron. The school made sure that at least 30 percent of its residents had normal intelligence so that they could do the work needed to support the institution.

Joe’s job was to section the brains of severely retarded residents who had died. Presumably, scientists would study the specimens. But that never happened. Worse than the work was the physical abuse Joe suffered at the hands of the staff. Some employees were psychologically disordered.

Efforts to escape led to punishment and even to solitary confinement. More than 30 years later, Fred and Joe learned they had been used as human guinea pigs in radiation experiments conducted by MIT. Victims recently received \$60,000 each in compensation from MIT, Quaker Oats (the study sponsor), and the government.

Neither Fred nor Joe has ever received an apology. The label of moron has not been removed from their records.

Interpretive Comments

Although science aims for objectivity, individual scientists are clearly affected by their own values and assumptions. Psychologist Lewis Terman promoted the use of intelligence testing to “take account of the inequalities of children in original endowment.” He was in sympathy with the eugenics movement, which aimed to encourage only intelligent and fit people to reproduce. Terman believed that the use of intelligence tests would eventually “result in curtailing the reproduction of feeble-mindedness and in the elimination of an enormous amount of crime, pauperism, and industrial inefficiency.”

Beginning in the early 1900s, state governments warehoused hundreds of thousands of American children in institutions like the Fernald School for the Feeble-Minded. As this video suggests, in many cases the children were not retarded but simply poor and uneducated with no place else to go. Although eugenics is usually associated with Nazi Germany, it actually started in the United States. In the 1920s and 1930s, exhibits at fairs taught visitors that eugenics was good for America and good for the human race. Schools tested children regularly and those classified as feeble-minded were sent to institutions like Fernald.

Discussion Questions

1. In the establishment of schools such as Fernald, what underlying assumptions were made about human intelligence?
2. What are the potential dangers of using diagnostic labels?
3. What are society’s obligations to the surviving victims of the Fernald School?

Motivation

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?

Sexual Dysfunctions and Their Treatments

Length: 6:05 minutes

Source: “*It’s Just Sex*” 48 Hours (CBS News)

Relevant Lecture/Textbook Topics:

- ▶ Motivation

Description

In addition to describing the treatment for one major sexual disorder, this video raises important questions about the goals and appropriate use of drug therapy.

The Mayo Clinic is dedicated to eradicating erectile dysfunction. This segment explores the lives of five men who have participated in the clinic’s drug therapy program.

John is a 51-year-old athletics instructor who developed erectile dysfunction after he was diagnosed with diabetes. Over the past eight years, he has tried a variety of drugs with mixed success. The effectiveness of each pill is carefully recorded. Some of the most dramatic effects have come from the drug Cialis, which has been nicknamed “The Weekender.”

Tolman, a prostate cancer survivor, was one of the first patients to be treated with Viagra. The drug has now made medical, social, and marketing history. Viagra, explains one advertising executive, has become the equivalent of a generic and many view it as the cure to the problem of erectile dysfunction.

Nonetheless, Viagra is not successful with all men. Approximately 25 million men could benefit from an alternative intervention. More than a dozen pharmaceutical companies are seeking to tap into the multi-billion dollar market. Four of the men, including 61-year-old Joseph who suffers from diabetes, have tried the new drug Levitra. Similar to Viagra, Levitra is supported by an advertising campaign that features a younger man who “just needs a little help with his pain.”

Focus is shifting from treating erectile dysfunction to enhancing erectile quality. That is, the drugs are being used in ways not originally intended. Men without a disorder are using them to improve their sexual experience. Research continues on new drug developing, which includes some that may eventually replace pills. For example, 61-year-old Wes, a CPA and prostate cancer patient, is using a cream that is applied locally to improve sexual performance. Perhaps the most revolutionary new treatment is a nasal spray recently tested successfully by Kurt, a 45-year-old photographer. In contrast to the cream, this spray works on the brain structure that triggers erections.

Interpretive Comments

Sexual disorders are problems that consistently impair sexual functioning. For men, premature ejaculation and erectile disorder (an inability to have or maintain an erection) are among the most common. Beginning with the introduction of Viagra, erectile disorder has been routinely treated with a pill. Since the Food and Drug Administration (FDA) approved Viagra in 1998, 35 million men in more than 120 countries have taken nearly 2 billion Viagra pills. Cialis and Levitra are competitors and also big sellers. It is estimated that 4 million Americans take erectile dysfunction pills every year.

The drugs work by fueling a chemical reaction in the bloodstream. This reaction produces nitric oxide, which opens up the blood vessels essential to erections. Before Viagra, erectile disorder was largely treated as a psychological problem rather than a physical one. As this program indicates, critics argue that men often take these prescription drugs for the wrong reasons—that is, to enhance sexual performance or simply to weaken anxiety. Some fear that sexual disorders may reflect problems in relationships, which may continue and even worsen if the “physical” problem is solved. Viagra seems to have become a factor in some divorces because of a “Viagra-fueled” affair by the husband.

Discussion Questions

1. Should drugs be used only to correct sexual disorders or also to improve sexual experience and performance?
2. What does this research reveal about human sexual motivation across the life span?
3. Should drugs be used to eliminate all negative emotions if possible? Why or why not?

Emotions, Stress, and Health

Do Body Smells Reveal Fear and Happiness?

Length: 3:15 minutes

Source: *"Taste and Smell" Come To Your Senses* (BBC Motion Gallery)

Relevant Lecture/Textbook Topics:

- ▶ Emotion
- ▶ Sensation
- ▶ Gender

Description

In addition to introducing smell as a possible mode of communication, this video provides an excellent opportunity to review the basic components of the experimental method. In showing the program, ask students if they can identify the independent and dependent variables in this study.

This segment explores whether body odor reflects mood. Male and female student volunteers at the University of Warwick begin the study by washing with unscented soap and then changing into new t-shirts.

In the first part of the experiment, the students observe a series of "feel-good" film clips. The students appear happy as they watch the programs, and after 20 minutes their t-shirts have presumably picked up their body odor. After a quick wash under the arms, they put on fresh t-shirts. This time the volunteers watch programs intended to elicit fear. Again they change shirts.

Shirts are placed in six bags sorted by gender and emotion. Two of the bags hold plain shirts. The students are instructed to sniff and categorize each bag of shirts. They report the task to be challenging.

The results indicated that males were very good at recognizing females and females were successful in recognizing males. In addition, males were able to detect the specific moods of females but not those of other males. Similarly, females could pick up the moods of males but not of other females. The researcher concludes that the results provide some evidence that smells can be picked up as messages.

Interpretive Comments

A pheromone is a chemical released by an animal that acts on another member of the species to elicit some specific behavioral or physiological response. For example, most mammals produce pheromones that promote sexual attraction or serve to mark one's territory. As this program highlights, humans have structures that make such communication possible. We have specialized glands in the skin that secrete odorous substances. They are heavily concentrated in the armpits and genital region. Humans also have a vomeronasal organ that contains receptor cells specialized for responding to pheromones. In this program, males and females seem capable of detecting the smell of the other sex as well as distinguishing its good or fearful mood.

Most human pheromone research has focused on whether we produce sex-attractant hormones. Both males and females have been exposed to various secretions taken from the other sex and then asked to

rate the attractiveness of the odor or changes in their own mood. Thus far, such studies have failed to produce convincing evidence that we do produce such pheromones. The clearest evidence for human pheromones comes from findings that show the possible impact of chemicals on women's menstrual cycles. College women who live together for several months tend to have synchronized menstrual cycles. Research suggests that this effect is mediated by chemical communication.

Discussion Questions

1. What are the independent and dependent variables in this experiment?
2. How might smells serve as messages?
3. How would an evolutionary perspective explain the findings from this study?

Rage: One Woman's Story and Treatment

Length: 8:10 minutes

Source: "Rage" 48 Hours (CBS News)

Relevant Lecture/Textbook Topics:

- ▶ Emotion
- ▶ Therapy

Description

This video provides a case study in the anger-prone personality. It considers the destructive effects of anger on relationships, as well as the management of the emotion.

Tracy, a wife and young mother, has decided to enter an inpatient anger management program. The four-week program includes a complete medical evaluation along with therapy. The therapist suggests that becoming angry with another person often enables us to get what we want, and the discharge of our frustration also makes us feel better.

Patients act out their anger in psychodrama. They learn to play childlike games that enable them to ask for help in dealing with their frustration. For Tracy, the most important moment will come when her husband joins her in a face-to-face encounter. Their marriage is in jeopardy and neither can anticipate the outcome of their meeting.

After three weeks in treatment, Tracy is learning to control her anger. She believes her problem can be traced back to being raised in an angry family. Tracy is convinced she will never be as angry again. Her husband believes he has been unfairly victimized by his wife's problem and has begun divorce proceedings.

In a challenging encounter at the treatment center, Tracy and her husband are given the opportunity to air their grievances and share their goals. Tracy begins by describing how she has felt belittled by him. Most troubling to her, was when he secretly taped one of her outbursts and shared it with her pastor and their friends. As her husband listens, Tracy apologizes for her past pattern of anger and thanks him for the times he has been supportive. Tracy's husband voices frustration with his wife's anger, especially for the times she has thrown things and called him names. He expresses his love for Tracy and his desire for a healthy relationship. At session's end, the two embrace.

Tracy voices her concern that her husband failed to express regret over the taping. He admits that sharing the tape was wrong, but also still seems to defend his motive for taping her out-of-control rage. He clearly hopes that their participation in the program will repair their relationship.

Interpretive Comments

This case suggests that anger is sometimes shaped by parental models. Growing up in an anger-prone family seems to have fostered the emotion in Tracy. In addition to being expressive of frustration, anger may become instrumental in achieving important goals. Although the narrator suggests that the expression of anger also makes us feel better, catharsis generally fails to cleanse one's rage. Expressing anger tends to breed more anger, which may explain Tracy's life-long pattern of attack.

This case also illustrates how anger is often a response to a friend or loved one's perceived misdeeds. It is especially common when another person's actions seem willful, unjustified, and avoidable. Both Tracy's and her husband's anger seem to have been fueled by feelings of rejection and belittlement. Communication can serve to reduce conflict, especially when it includes non-accusing statements of feeling that foster mutual understanding. Clear and forthright communication tends to reduce mistrust and forgiveness can also promote reconciliation. Without excusing the offender or inviting further harm, forgiveness releases anger and calms the body.

Discussion Questions

1. What do you regard to be the important causes of Tracy's anger?
2. How might group therapy prove helpful in understanding and managing one's anger?
3. What is the role of communication in reducing conflict?

The Search For Happiness

Length: 6:15 minutes

Source: CBS Sunday Morning: “The Pursuit of Happiness” (BBC Motion Gallery)

Relevant Lecture/Textbook Topics:

- ▶ Emotion
- ▶ Positive Psychology

Description

This program provides a good introduction to classroom discussion of research on subjective well-being, as well as the perspective of positive psychology. It features the pioneering work of psychologists Martin Seligman and Ed Diener.

Seligman suggests that happiness includes the *pleasant* life, the *engaged* life, and the *meaningful* life. The latter involves serving something larger than oneself, and is marvelously illustrated by an elderly couple’s establishment of a retirement home for abused animals. For 22 years, the husband and wife team have served as “happy slaves” in meeting the basic needs of dozens of horses, dogs, pigs, and goats. The couple laughs at the irony of their working 14-hour days so their animals can retire.

Darrin McMahon traces the history of happiness. In ancient times, happiness was thought to be something dispensed by the gods. The Greeks suggested that humans might play a role in their own happiness. For example, Aristotle maintained that happiness came in living a virtuous life. The early Christians believed that happiness came only in the hereafter. The nineteenth century American ideal of “the pursuit of happiness” assumes that we have the personal capacity to shape our lives and the world in the way that we like.

A recent poll by the Pew Research Center found that the majority of Americans describe themselves as “pretty” or “very” happy. Research on the predictors of happiness suggests that money increases happiness only for the very poor. Once basic needs are met, more money makes little difference. However, researcher Ed Diener notes that Americans’ expectations keep rising and cultural comparisons find that the United States ranks only 15th in subjective well-being. He calls for regular monitoring of a national index of well-being.

Diener reports that, without exception, the happiest people all have supportive family and friends. In addition, the pursuit of important values and goals fosters long-term happiness. Enjoying the activities it takes to reach a goal is more important than attaining the goal itself. Diener notes that the pursuit of happiness may itself be long-term happiness. Clearly, happiness is a journey not a destination.

Interpretive Comments

Researchers in positive psychology aim to expand psychology’s study of emotion to include the positive emotions. They focus on subjective well-being assessed either as feelings of happiness or as a sense of satisfaction with life. Important predictors of happiness include not only close friendships and meaningful work, but also the personality characteristics of high self-esteem, optimism, and agreeableness. “Flow” results from optimal engagement of one’s skills. It is a focused state of consciousness in which there is diminished awareness of self and time. As Diener suggests, enjoying the activities that it takes to reach a goal become more important than the goal itself.

Discussion Questions

1. What makes you happy?
2. What makes people happier, something they do for personal pleasure or something they do to help others?
3. Why might a national index of well-being, as Diener proposes, be useful and important?

Measuring Stress While Running with the Bulls

Length: 4:20 minutes

Source: “*Born to Survive*” *Human Instinct* (BBC Motion Gallery)

Relevant Lecture/Textbook Topics:

- ▶ Emotion
- ▶ Stress and Health

Description

This video provides a vivid illustration of how our bodies respond to stress. Running with the bulls also demonstrates how human motivation seeks optimum levels of arousal. Sensation- or thrill-seeking personalities seem to prefer high levels of stimulation.

Each year people come from all over the world to Pamplona, Spain to run with the bulls. The narrator describes the event as the “ultimate adrenaline rush.” Since the event began, many participants have been badly gored and some have even lost their lives.

Andy describes coming to the run as the fulfillment of a dream. He has agreed to participate in a study that observes how the body responds in times of acute danger. His heart rate, blood pressure, and cortisol level are measured as part of the assessment. Cortisol is closely related to adrenaline, which may energize Andy to run faster than he ever has before. An hour before the run he reports he is excited and ready to go.

The bulls are released and Andy waits for them to come near. The challenge is to get as close to a charging bull as you dare, without getting gored. As the bulls approach, Andy’s body is flooded with a massive burst of adrenaline. His cortisol levels more than double. From a resting rate of 72 beats per minute, Andy’s heart rate more than triples.

Andy describes the fear elicited by the running bulls as incredible. Unquestionably, he has found the experience to be thrilling. The fear instincts that we rely upon to save our lives are powerful. Thus, concludes the narrator, it is difficult to turn them off at will.

Interpretive Comments

Our response to stress dramatically demonstrates the mind–body interaction. Research has identified a two-track stress response system. The sympathetic nervous system stimulates the release of the stress hormones epinephrine and norepinephrine (also called adrenaline and noradrenaline) from nerve endings in the inner part of the adrenal glands. This system also increases heart rate and respiration, diverts blood from digestion to the skeletal muscles, reduces pain, and releases sugar and fat from the body’s stores.

On a second track, the cerebral cortex, by way of the hypothalamus, prompts the release of glucocorticoid stress hormones (such as cortisol) from the outer part of the adrenal glands. Both of these systems promote fight-or-flight physiological effects in our bodies, including faster breathing and tense muscles. However, they work at different rates of speed. Biologist Robert Sapolsky explains, “In a fight-or-flight scenario, epinephrine (or adrenaline) is the one handing out guns; glucocorticoids are the ones drawing up blueprints for new aircraft carriers needed for the war effort.”

Discussion Questions

1. What are the key components of any emotion?
2. Describe how our bodies respond to stress.
3. What do you think is the most important motive for “running with the bulls”?

The Stress Response

Length: 2:45 minutes

Source: *CBS Evening News* (CBS News)

Relevant Lecture/Textbook Topics:

- ▶ Emotions
- ▶ Stress and Health
- ▶ Neuroscience

Description

This video can be used to either introduce or conclude your classroom discussion of stress and health. Although the video acknowledges that stressors can have positive effects, it focuses primarily on how severe or prolonged stress harms us.

Teresa, a corporate attorney, finds that the demands of her workplace and home are sometimes excessive and stressful. Under stress, the brain signals the release of the hormones adrenaline and cortisol. They can give us energy, strengthen the immune system, improve reflexes, and even enhance memory. However, if we are always under stress the release of cortisol begins to work against us.

Researcher Bruce McEwen explains how chronic stress undermines our physical well-being. It causes neurons in the brain to shrink. In animals, this produces increased anxiety, aggressiveness, and even symptoms of depression. Other researchers find that chronic stress accelerates aging and makes us more susceptible to disease. Damage even occurs at the molecular level. The fraying of telomeres, which form the protective coating at the end of chromosomes, mimics the effects of aging.

The improved technology of contemporary society, including the ready availability of cell phones and email, has created new sources of stress. Psychologist Christina Maslach suggests that those who do not manage stress well may become overwhelmed and eventually experience burnout. They work less effectively.

Learning to control and even avoid stress can reverse the physiological damage that stress produces. Effective stress management strategies include relaxing with family, exercising, eating well, and, at times, ignoring those emails.

Interpretive Comments

Stress is the process by which we perceive and respond to environmental threats and challenges. How we interpret or appraise an event impacts how much stress we experience. One person may see a psychology test as a challenge and become motivated and focused. Another person may see the test as a threat and become distracted. Our body responds to stress with a two-track system. The sympathetic nervous system prompts release of the stress hormones epinephrine and norepinephrine from the nerve endings in the inner part of the adrenal glands. The cerebral cortex directs the release of glucocorticoid hormones, such as cortisol, from the outer part of the adrenal glands. Both systems lead to flight-or-fight physiological effects in our bodies such as faster breathing and tense muscles. Aerobic exercise, biofeedback, relaxation, meditation, and spirituality may help us manage stress. In addition, having a sense of personal control and optimism, along with a strong base of social support, promote health.

Discussion Questions

1. In what ways can stressors have positive effects?
2. In contemporary society, which demands produce severe and prolonged stress?
3. What strategies do you use to cope with stress? Are they effective?

Stress and the Immune System: Caretakers at Risk

Length: 3:15 minutes

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

Relevant Lecture/Textbook Topics:

- ▶ Stress and Health
- ▶ Emotion

Description

Does stress undermine our physical as well as our psychological well-being? This video examines the impact of stress on our immune system and our body’s ability to heal.

Madge is an elderly woman who is suffering from Alzheimer’s disease. Franklin, her husband of 51 years, provides constant care. In contrast to other challenges he has faced, he knows this one will only get worse. The hardest part, Franklin claims, is the contrast that he sees between what his wife is now and what she had been she was when healthy.

Researchers Jan and Ron Glaser conducted a detailed study examining the effects of stress on health. Research participants were people under continuous levels of high stress, such as those who care for family members with Alzheimer’s. Such caregivers often describe their experience as a “living bereavement.” They see pieces of the one they love disappear over time.

The Glasers found that psychological stress had lowered Franklin’s immune response. This finding is consistent with other studies of animals and humans, which have found that stress impacts aspects of the immune response. The unanswered question is whether these changes are large enough to have an effect on one’s physical health.

The Glasers sought to determine whether the impact of stress on immune functioning would affect the body’s ability to heal itself. Small identical wounds were made on the arms of all of the volunteers. Results indicated that it took longer for the wounds of those experiencing high stress to heal. The study provides evidence that stress inhibits our immune system’s response to the point of undermining our health.

Interpretive Comments

Our immune system includes two types of white blood cells called lymphocytes. *B lymphocytes* form in the bone marrow and release antibodies that fight bacterial infections. *T lymphocytes* form in the thymus and other lymphatic tissue and attack cancer cells, viruses, and foreign substances. Macrophage, another agent of the immune system, identifies, pursues, and ingests harmful invaders. Stress is one important factor that depresses the immune system’s activities. Several studies have demonstrated its negative impact on physical health.

In the study described in this clip, the Glasers found that the wounds of stressed participants took longer to heal. In another study, 47 percent of the research participants living stress-filled lives developed colds after a virus was dropped in their nose. In contrast, only 27 percent of those living relatively stress-free lives contracted the illness. Finally, findings from 23 studies reveal that family caregivers of people with dementia exhibit a 15 percent below-normal immune antibody response and a 23 percent increase in stress hormones.

Discussion Questions

1. What are the practical implications of this research for those who are engaged in long-term care of acutely ill family members?
2. What makes caring for Alzheimer's victims especially stressful?
3. How does this research illustrate the interaction of mind and body?

Fighting Cancer: Mobilizing the Immune System

Length: 6:35 minutes

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

Relevant Lecture/Textbook Topics:

- ▶ Emotion
- ▶ Stress and Health
- ▶ Therapy

Description

This program provides an excellent example of how mind and body interact as well as the constant interplay between our heads and our health. Everything psychological is simultaneously physiological.

A few years ago Christine, a young mother of three, was diagnosed with breast cancer. She dreaded undergoing chemotherapy and vividly describes its side effects, which include a horribly dry, metallic aftertaste.

Sixteen years ago Dr. Leslie Walker sought to help cancer patients reduce the distressing effects of chemotherapy. He taught them to practice special relaxation techniques and found that the strategy reduced problems with nausea and vomiting. More surprising was the finding that patients who used relaxation techniques survived longer.

Thinking that the results may have been a fluke, Walker set up a new trial. His research team sought to determine whether relaxation and imagery techniques could control the spread of breast cancer cells after tumors had been removed by conventional treatment. A total of 96 women participated in the new study. All underwent conventional treatment for removal of their tumors. However, half of them also spent time each day imagining that their tumor was being attacked. Christine describes how, in seeking to control the spread of her cancer, she imagined a monster imprisoned in a cage.

Over a period of three years, the researchers assessed the natural killer cells in the participants’ blood, which are thought to inhibit the spread of cancer. They found that relaxation and imagery techniques enhanced the white cells that are important in targeting and fighting cancer cells. The study is not complete, but preliminary results suggest that those women who practiced relaxation and imagery techniques have more active natural killer cells. Although the strategy does not provide a cure, it may slow the spread of cancer throughout the body.

Interpretive Comments

This segment raises important questions about the relationship between stress and cancer. Some researchers have found that people are at increased risk for cancer within a year after experiencing depression, helplessness, or bereavement. Other researchers have not found a link between stress and cancer. Most investigators believe that stress does not create cancer cells, but it may affect their growth by weakening the immune system’s ability to defend against a few proliferating malignant cells. Similarly, the research highlighted in this video indicates that relaxation and imagery techniques may not cure cancer, but they may significantly slow its progression and spread throughout the body. This would be consistent with other lines of research that have indicated that relaxation techniques can help alleviate headaches, hypertension, anxiety, and insomnia. Such techniques have also been associated with a

reduction in the recurrence of heart attacks. Finally, conscious, mindful meditation has been specifically linked to improvement in immune functioning.

Discussion Questions

1. How does the research reported in this video illustrate links between mind and body?
2. What role can psychologists play in promoting physical well-being?
3. What are the possible dangers in believing that our minds can cure our bodies?

Personality

Repression: Reality or Myth?

Length: 12:40 minutes

Source: *Newsnight* “*Traumatic Memories*” (BBC Motion Gallery)

Relevant Lecture/Textbook Topics:

- ▶ Personality
- ▶ Memory

Description

This case study can be used in a classroom discussion about the psychoanalytic perspective of personality and the controversy surrounding Freud’s proposed defense mechanism of repression. Alternatively, you may choose to present the program with the material on memory—specifically in your discussion of the research on reports of repressed and recovered memories of childhood sexual abuse.

Anna had always enjoyed pleasant memories of her childhood. But when she developed eating disorders, her deteriorating health led her to therapy.

The psychiatrist asked Anna about her relationships with her parents including whether she felt safe with her father. She answered affirmatively. Anna was admitted to an acute psychiatric ward where other patients were in the process of recovering memories of sexual abuse. Anna’s disturbing dream about a male patient attempting to climb into her bed lead her therapist to encourage her to keep dream diaries.

Anna believes that the therapist saw her dream as evidence that she had been sexually abused as a child. He gave her *The Courage to Heal*, a book intended to help readers recover memories of sexual abuse. Anna became convinced that her current problems were the result of past abuse. She first accused her step-grandfather, and then her father, of abuse. Although at times Anna had doubts about the accuracy of her recall, her therapeutic team assured her that it was accurate. But they did not seek any corroborating evidence.

Anna now claims that her therapist failed to provide adequate treatment for her eating disorders. In fact, she suggests that the therapy led to her abuse of drugs and made her suicidal. A working team of psychiatrists was appointed to address the controversy. Their inquiry led them to conclude that there is no evidence to support recovered memory theory. Specific guidelines now instruct therapists not to use memory recovery techniques intended to reveal evidence of past sexual abuse about which the patient has no memory. In addition, psychiatrists should alert patients to doubts about recovered memories. The psychiatrist who led the team inquiry goes even further and outright rejects repression and the notion of recovered memory. Clearly, not all agree with his assessment.

Anna is now convinced she was never abused and members of her family are trying to rebuild their lives.

Interpretive Comments

Sigmund Freud argued that repression banishes anxiety-arousing thoughts and feelings from consciousness. It is the key defense mechanism because it underlies all the other defense mechanisms,

each of which disguises threatening thoughts and feelings and keeps them from reaching consciousness. Contemporary researchers question whether repression ever occurs. The more common finding is that high stress enhances memory and thus negative emotional events are remembered well. Often vivid, unwanted flashbacks haunt survivors of rape and torture.

Research also indicates that we construct our memories using both stored and new information. Children or adults who are exposed to misinformation after an event, or are asked to repeatedly imagine and rehearse an event that never occurred, may incorporate the misleading details into their remembering. Elizabeth Loftus's finding that false memories of childhood trauma can be experimentally implanted is particularly relevant to this video on therapist-aided recall. Studies indicate that people can be wrongly persuaded that they almost drowned as a child or that they experienced a vicious animal attack.

Discussion Questions

1. Why might people in therapy be especially vulnerable to therapist-assisted recall of past trauma?
2. Do you have any painful memories of your past? Are you readily able to suppress them or do they sometimes prove intrusive?
3. Have other people ever played an important role in your recall of past experiences? Explain.

Self-Image: Body Dissatisfaction Among Teenage Girls

Length: 3:20 minutes

Source: “*Skin Deep*” 48 Hours (CBS News)

Relevant Lecture/Textbook Topics:

- ▶ Personality
- ▶ Development
- ▶ Social Psychology

Description

This video can be used in discussing research on the self—particularly the research findings related to self-esteem. It is also relevant to a discussion of the social-cultural influences that impact the development of the self. Finally, the clip illustrates the importance of physical appearance in social judgments and in shaping our sense of self-worth.

16-year-old Hayley indicates that she was only 13 years old when she first considered having corrective surgery for her breasts. Now, she is scheduled for breast augmentation. The surgeon explains that Hayley was concerned her breasts were too small and, in addition, they had a slight asymmetry. Hayley believed that she suffered a “deformity.” A photograph shows Hayley’s body and breasts to be normal.

Hayley’s mother describes her daughter as an excellent student, a fine athlete, and socially popular. Still, she could not stand in front of a mirror without wearing a towel because she felt deformed. The mother’s efforts to reassure Hayley were unsuccessful.

Psychologist Lilly Freedland suggests that, for parents and teenagers, the definition of deformity has expanded to include anything that is not perfect. She worries that they may come to see surgery as a quick fix for what may not even be a problem. Dr. Freedland also questions whether teens have the necessary maturity to make such an important decision.

One plastic surgeon states that he would not consider doing surgery for breast augmentation on any one under the age of 18. He questions whether a younger person is emotionally prepared to make that kind of decision. Such surgery, he argues, should not be viewed as a “haircut.” In addition, the surgeon has medical concerns because female breasts continue to develop between the ages of 16 and 18.

Another surgeon agrees and notes that those coming for surgery often seem to think that looking good is more important than feeling good. The teenagers typically shrug off the potential surgical risks and younger girls continue to seek the surgery. Unfortunately, he notes, a teenage girl often experiences each day as a Miss America beauty contest.

Interpretive Comments

Self-esteem is a person’s self-evaluation or sense of self-worth. Researchers Jennifer Crocker and Connie Wolfe have argued that the source of our self-esteem is a powerful guide for our behavior. They have identified seven possible domains in which people may invest their self-worth, including academic competence, virtue, other’s approval, God’s love, appearance, competition, and family support. A pervasive physical-attractiveness stereotype (the belief that what is beautiful is good) impacts social judgments and explains why people tend to worry about how they appear to others.

However, cultures vary in what they find attractive. In North American society, breast augmentation, body piercings, and rhinoplasty (reshaping of the nose) have increased dramatically in recent decades. In contrast, women of the Padaung tribe in Burma focus on the length of their neck (the longer, the more beautiful) and women in China are concerned with the size of their feet (small feet are considered attractive).

In a study of 600 college students, Crocker and her research team found that self-esteem based on appearance was linked to spending more hours per week grooming, shopping, and partying. Self-esteem based on academic performance was associated with greater success in gaining admission to graduate school. Jennifer Crocker and Lora Park have suggested that secure self-esteem is not contingent on external evaluations. Feeling accepted for who we are and not for our looks, wealth, or acclaim enables us to lose ourselves in relationships and in purposes beyond ourselves.

Discussion Questions

1. What do you think are the important factors that contribute to Hayley's concern with her physical appearance?
2. Should girls younger than 18 be permitted to undergo surgery for breast augmentation? Why or why not? Who should make this decision?
3. What are the factors that influence our sense of self-worth?

Genes and Personality

Length: 8:10 minutes

Source: *BBC Newsnight “Quest: Human Behaviour”* (BBC Motion Gallery)

Relevant Lecture/Textbook Topics:

- ▶ Personality
- ▶ Nature-Nurture Issues

Description

This video can be used in conjunction with material about the trait perspective on personality. It also highlights the nature–nurture issue and the use of twin studies to examine the influence of heredity and environment.

Karen and Lynn, identical twins, have been inseparable since birth. They have always lived in the same town, and once even had the same boyfriend. They share the same likes, display the same sense of humor, and have the same genes. Do genes determine our traits?

At one time, researchers believed that genes played little role in determining our personality. Today, DNA analysis suggests that genetic influence may be very important. Although our genes may play a more important role in some traits than others, so far research indicates that there is some genetic influence on every trait.

Studies of twins raised apart suggest that genes may even play a role in criminality and addiction. Such understandings are not politically popular. Eventually, the research findings may call us to revise our comfortable views of human nature.

Having completed the sequencing of the human genome, researchers now turn attention to the role that genes play in a variety of specific human characteristics. The applications of this research will become increasingly important. One project is aimed at understanding the genetic basis of depression. By comparing the genetic code of depressed persons with that of non-depressed persons, researchers aim to uncover the specific genes involved in depression.

In addition, researchers are studying the possible genetic influence on antisocial behavior. Hopefully, findings will eventually enable them to identify children who are likely to develop problems. The research raises the question of whether we will eventually need to view antisocial behavior as an illness like schizophrenia or depression. Medical intervention may be able to prevent problems before they occur.

Similar efforts are underway to understand the possible genetic basis of alcoholism and other addictions. Some believe that thrill-seeking may be an important factor in such disorders. From this research, we may eventually learn how to intervene most effectively in treating addiction.

Interpretive Comments

Behavior genetics studies the relative power and limits of genetic and environmental influences on personality and behavior. Researchers who attempt to define personality in terms of traits—that is, in terms of stable and enduring behavior patterns—have recognized that many of our normal individual variations are genetically influenced. For example, Hans and Sybil Eysenck believed that nature shaped

the basic personality dimensions of extraversion and emotionality. The proposed Big Five personality factors of conscientiousness, agreeableness, neuroticism, openness, and extraversion represent an expanded set of personality factors that are relatively stable and that describe personality in various cultures reasonably well. Although heritability of these individual differences varies with the diversity of people studied, it generally runs 50 percent or more for each dimension.

Discussion Questions

1. In what ways do you believe both nature and nurture have shaped your specific personality traits?
2. If genes predispose people to criminal behavior, are they still responsible for their actions? Why or why not?

Psychological Disorders

ADHD and the Family

Length: 6:10 minutes

Source: “Living with ADHD” *Horizon* (BBC Motion Gallery)

Relevant Lecture/Textbook Topics:

- ▶ Psychological Disorders
- ▶ Development

Description

Your consideration of classroom psychological disorders could profitably include this case study in attention-deficit/hyperactivity disorder (ADHD).

Liam is a young boy who is out of control. He is fearless, impulsive, and careless to the point of running into busy traffic. He ignores parental warnings and seldom obeys. He is a source of enormous stress for his parents.

Liam is constantly on the go and is easily distracted. His mother Eleanor reports that, because of his oppositional behavior, she and her husband Brian rarely take Liam along on shopping trips. Simply getting him back to the car is a challenge. A year ago, Liam’s oppositional behavior produced so much stress that Eleanor sought medical help. Liam’s school also became involved.

On the playground, Liam shows little improvement. Eleanor and Brian became so concerned about their son’s behavior that they turned to a community mental health agency for help. With an oppositional child like Liam, Eleanor explains that she is in a “no-win” situation. Trying to provide direction to Liam leads him to do the opposite. Psychologists believe that many ADHD children develop oppositional behavior as a reaction to constantly being told what to do. It is their way of coping with criticism of behavior over which they feel that they have no control.

The video segment ends showing little change in Liam’s behavior. In an effort to bring his behavior under control, his parents try a time-out in his room.

Interpretive Comments

The National Institute of Mental Health (NIMH) estimates that about 4 percent of children suffer attention-deficit/hyperactivity disorder (ADHD). It is diagnosed two to three times more often in boys than in girls. The symptoms include: (1) *inattention* reflected in distractibility, forgetfulness, and disorganization; (2) *hyperactivity* expressed in fidgeting, restlessness, or excessive talking; and (3) impulsivity characterized by difficulty in taking turns, interrupting, or blurting out answers while questions are still being asked. The disorder often coexists with defiant, oppositional behavior, as is apparent in Liam’s case.

Research indicates that ADHD is heritable. In neuroimaging studies, it is marked by abnormal brain activity. Successful treatments have included nonaddictive medications such as Ritalin and Adderall, which help calm hyperactivity and foster the child’s ability to focus on a task. Therapies that focus on

shaping behaviors in the classroom and in the home have also helped address the common symptoms of ADHD.

Discussion Questions

1. How is ADHD different from simple rambunctiousness? Does ADHD fit the definition of a psychological disorder? Explain your answer.
2. While dealing with their son's behavior, what forms of therapy have Liam's parents tried?
3. What do you think might be the most effective strategy for dealing with children suffering from ADHD?

Those Who Hoard

Length: 7:00 minutes

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

Relevant Lecture/Textbook Topics:

- ▶ Psychological Disorders
- ▶ Therapy

Description

This video can be used to introduce or extend your classroom discussion of psychological disorders. You may also choose to show it when you present material on obsessive-compulsive disorders.

Bob is a hoarder. Anything brought into his apartment stays. His living room and bedroom are so full, he barely has a place to sleep. Walking through his apartment, he admits his habit is odd. Bob has many things, but not a single home comfort. He wants to watch the TV he cannot find.

Bob claims his hoarding stems from childhood. Viewed as different, he was bullied and beaten. Fear of being seen was really fear of being hit. For protection, he built a nest and a wall around himself. People cannot see him and he feels safe.

In obsessive-compulsive disorder (OCD) a person is bombarded by intrusive, fearful thoughts. Because Bob’s hoarding is his attempt to contain his fears, the idea of throwing anything away is terrifying. Bob admits that his things provide protection, but also make him feel buried alive.

Shirley’s hoarding began more than 30 years ago, after her home was robbed. Three years later, her father was killed in a robbery attempt. She felt having more stuff would make her feel safe. A neighbor suggests that, if robbers came, they would think the house was already ransacked.

Hoarders are difficult to treat. The most effective strategy is to go directly to their house and convince them to dispose of things. Therapist Randy Frost has been to Shirley’s house a couple of times and notes a bit of improvement. When asked, Shirley admits there is no organization to her stuff and she is unable to find things she might need. Frost tries to help Shirley throw away a picture. As expected, she resists, saying she finds the object beautiful even though she has no need for it.

For those who hoard, explains Frosts, possessions provide safety. Throwing away even a small thing—for example, a newspaper—makes one vulnerable. Another treatment step is to have the person throw away something, despite feeling bad, and then learning to overcome the distress. Shirley sees the task of overcoming her hoarding as a reclamation project and looks forward to the time when she can again sit on her sofa and watch TV.

Interpretive Comments

Most researchers consider hoarding to be a type of obsessive-compulsive disorder (OCD). Some view it as an impulse control disorder. Compulsive hoarding has been defined as the acquisition and failure to dispose of large quantities of items that are of little use or value. The problem often originates in childhood or adolescence, but typically does not become severe until adulthood. As this clip illustrates, hoarding begins in an effort to reduce anxiety. Compulsive hoarders often have interpersonal difficulties

and suffer low self-esteem. They tend to be perfectionists with weak decision-making and organizational skills. Depression and anxiety are symptoms that often accompany compulsive hoarding.

Cognitive-behavioral therapy attempts to strengthen decision-making and organizational abilities. In addition to helping sufferers discard items, therapists assist them in limiting new acquisitions. Drug therapy may help in controlling the feelings of anxiety and depression.

Discussion Questions

1. How does hoarding reflect the characteristics of a psychological disorder?
2. What do you believe is the major cause of compulsive hoarding?
3. What makes hoarding a difficult disorder to treat?

Trichotillomania: Pulling Out One's Hair

Length: 6:15 minutes

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

Relevant Lecture/Textbook Topics:

- ▶ Psychological Disorders
- ▶ Therapy
- ▶ Nature–Nurture Issues

Description

Discussion of psychological disorders can be readily extended to include those disorders involving impulse control. It is also possible that you may choose to present this specific case study in connection with your consideration of obsessive-compulsive disorders.

Liz suffers from trichotillomania. She cannot resist the urge to pull out her hair. In the opening scene of this video, Liz describes how she pulls out a single hair, eats the root, and throws the rest away. Although the bizarre act has a temporarily calming effect, Liz also knows it is self-destructive.

Aside from the urge to pull her hair, Liz seems like an average woman. She began pulling her hair at age 12 and is embarrassed by her bald patch. Fortunately, most people do not notice. At the same time, she worries that in any intimate relationship her patch and her trichotillomania will quickly become known.

Research findings at the University of Utah suggest a possible cause for the disorder. Certain laboratory mice will over-groom themselves, resulting in the removal of their hair. Their unusual behavior is the result of a single altered gene. Researchers are now investigating whether the same defective gene may produce hair-pulling behavior in humans. If this proves true, researchers could begin a search for medications to treat the disorder. This line of research is also important because it may indicate that faulty genes underlie more common compulsive conditions.

Meanwhile, Liz is exploring alternative treatments for her self-destructive behavior. She has had a hairpiece glued to the top of her head with the hope that this may stop her cycle of hair-pulling behavior. Three months after the wig was fitted, examination of the bald patch shows significant new hair growth. The hairpiece is replaced and will be worn for another six months. Most importantly, Liz reports that her urge to pull her hair has lessened.

Interpretive Comments

The DSM-IV classifies trichotillomania as an impulse control disorder. In some important respects it resembles an obsessive-compulsive disorder. Because the general public responds negatively to the disorder, it often goes unreported. Thus, the rate of occurrence is difficult to estimate. Some estimate the prevalence at 1 to 3 percent of the population. Although depression and anxiety sometimes accompany trichotillomania, those with the disorder may lead otherwise normal lives.

Liz’s case illustrates how the disorder often begins in adolescence. She demonstrates trichopagia—that is, chewing and eating the roots of the hair she pulls. Therapeutic interventions include medication and behavior therapy. Those with the disorder might be asked to keep a careful record of situations in which they typically pull their hair, and especially of what they are thinking or feeling at the time. This may help

them to develop strategies for avoiding repeat episodes. As the video indicates, recent research suggests that the disorder has a genetic basis.

Discussion Questions

1. How does trichotillomania fit the definition of a psychological disorder?
2. What do you believe is the cause of Liz's trichotillomania?
3. Why do you think Liz's therapy is working? What other therapies do you think might be effective in treating this disorder?

Beyond Perfection: Female Body Dysmorphic Disorder

Length: 4:35 minutes

Source: “*Seeking Perfection*” *Obsessions* (BBC Motion Gallery)

Relevant Lecture/Textbook Topics:

- ▶ Psychological Disorders

Description

This interesting case study can be used to introduce the defining characteristics of a psychological disorder or to extend your classroom discussion of more common disorders. Body dysmorphic disorder is considered to be one of the somatoform disorders.

Thirty-year-old Jennifer is obsessed with having a perfect appearance. She desperately wants her skin to appear flawless without the application of any makeup. Instead, she reports spending three hours applying foundation to cover blemishes and scars before she feels presentable in public. Although she is in fact a very attractive woman, Jennifer is convinced that she is terribly disfigured.

When Jennifer looks in a mirror she claims she sees a monster. To her, her skin seems badly discolored and scarred. She believes others also view her as badly disfigured. However, as she walks down a busy Boston street, male strangers frequently whistle and note her sexy appearance. For a brief moment, she thinks she must be attractive, but then realizes they are too far away to know what she really looks like.

Though Jennifer comes from a wealthy family and is well-educated, she works only part-time at McDonald’s. Her therapist claims that Jennifer meets the criteria for a variety of psychological disorders including OCD, borderline personality disorder, body dysmorphic disorder, and major depressive disorder.

Jennifer literally wants to be someone else. At the university, she was obsessed with other students whom she thought looked perfect. For example, she became obsessed with one close friend whose life seemed ideal. Jennifer bought the same jewelry, the same socks, and even tried to emulate her friend’s handwriting. The efforts failed and she dropped out of school.

Three years ago, Jennifer began undergoing cosmetic surgery. She underwent a nose job and now she is saving for dermabrasion, a procedure designed to improve the appearance of skin. With each procedure, she feels she is getting closer to her goal and thus claims to be happier.

Interpretive Comments

Those who suffer from body dysmorphic disorder (also known as dysmorphophobia) are deeply concerned about some imagined or minor defect in their appearance. Most frequently, they focus on wrinkles, skin spots, excessive facial hair, or a misshapen facial feature. In some cases, they are concerned about their body odor. Because of their disorder, sufferers limit contact with others and make every attempt to conceal the defects they perceive in their physical appearance. As this particular case illustrates, many will seek cosmetic surgery and may feel worse rather than better afterward. Many of those with the disorder are housebound and some have attempted suicide.

Typically body dysmorphic disorder begins in adolescence, but victims are often slow to reveal their concern. It is estimated that 2 percent of people in the United States (4 percent of college students) suffer from body dysmorphic disorder. Interestingly, clinical reports suggest that it may be as common among men as women.

Discussion Questions

1. How does Jennifer's concern about her physical appearance fit the characteristics of a psychological disorder?
2. What social-cultural influences may contribute to this disorder?
3. How does this case illustrate the importance of psychology's cognitive perspective?

PTSD: Returning from Iraq

Length: 8:05 minutes

Source: “*Battle Danger*” 60 Minutes (CBS News)

Relevant Lecture/Textbook Topics:

- ▶ Psychological Disorders
- ▶ Therapy

Description

This video provides a case study in one of the major anxiety disorders. It also highlights some of the obstacles that can impede effective therapeutic intervention.

Jared, wounded during combat in Iraq, is diagnosed as suffering from post-traumatic stress disorder (PTSD). He reports that his symptoms include irritability and impatience. He admits that he easily loses his temper and finds it difficult “to put up with anything.” PTSD may be more widespread than we think. It is very likely that each of us will experience a life-threatening event at some point in our lives. For some, the event will produce a chronic, unremitting disorder.

Although Jared had once prepared a detailed account of the ambush, he is now either unable to remember what happened or simply does not want to discuss it. He indicates that during his 10 months of therapy he has deliberately tried to forget about the attack. Jared does recount two boys firing guns at his truck. In the course of the assault, he shot and killed one of the boys who appeared to be only seven years old.

A year after the ambush, Jared is still in therapy. He has a new girlfriend who reports that Jared is unpredictable. On one occasion, he became very drunk and physically assaulted her. Jared does not understand his own behavior.

Research suggests that 1 in 6 Iraqi veterans return with signs of anxiety, depression, or PTSD. Most are not asking for the help they need. Instead, they try to deal with their problems on their own. They do not want the stigma of being a “head case.” Those with physical injuries have little respect for those merely experiencing psychological distress. Although Jared suffered a foot injury in combat, he now feels that he used it as an excuse to run away.

Gale, Jared’s girlfriend, reports that she told him she wanted him to get help. Jared said he did not want to lose her so he would do what it would take to keep her. Nonetheless, his violence returned and again he assaulted her. Through tears she reports that Jared is not bad and repeats her hope that he will still get the necessary help.

Interpretive Comments

Post-traumatic stress disorder (PTSD) is an anxiety disorder that is characterized by haunting memories, nightmares, social withdrawal, jumpy anxiety, and insomnia. Those who experience PTSD lose a sense of basic trust and tend to be hopeless about their future. The greater one’s emotional distress during a trauma, the greater the risk of developing post-traumatic symptoms. For example, in comparing Vietnam veterans who experienced combat with those who had not, researchers found that combat stress more than doubled a veteran’s risk of alcohol abuse, depression, or anxiety. Additional research indicates that the

more frequent and severe the assault experiences, the more adverse the long-term outcome tends to be. Therapists face challenges in dealing with those who suffer from PTSD. Prompting survivors to revisit the experience and vent their emotions has actually proven ineffective and sometimes harmful. Reliving the trauma can exacerbate one's emotions.

Although half of adults experience at least one traumatic event in their lifetime, only about 1 in 10 women and 1 in 20 men develop PTSD. Indeed, suffering can lead to post-traumatic growth. For some, it leads to a greater appreciation of life, more meaningful relationships, revised priorities, and a richer spiritual life.

Discussion Questions

1. What do you regard to be the primary cause of Jared's disorder?
2. In this case, what are the primary obstacles to effective therapy?
3. Do traumatic experiences ever foster personal growth rather than disorder? Explain your answer.

Suicide: Case of the “3-Star” Chef

Length: 4:40 minutes

Source: “*The People’s Chef*” 60 Minutes (CBS News)

Relevant Lecture/Textbook Topics:

- ▶ Psychological Disorders

Description

Your discussion of psychological disorders will surely include consideration of depression and its causes. This video examines the extraordinary case of chef Bernard Loiseau who became deeply depressed and finally committed suicide. His wife traces his remarkable success as a chef who fulfilled his lifelong dream of receiving a 3-star rating (the highest rating given in France) for his very popular and highly successful restaurant La Côte d'Or. She recalls their champagne celebration 12 years earlier. It was the same week she gave birth to their second child—an event Bernard regarded as a distraction at the time.

Thousands mourned Bernard’s death and could not fathom how someone who seemed to love life so much could choose to end it. Bernard left behind three young children and a multi-million dollar empire that included the pride of his life—his hotel and 3-star restaurant. Beautifully-manicured lawns and spectacular rooms marked La Côte d'Or, one of only 25 restaurants in France that have earned the 3-star rating. People came from great distances to experience the meal of a lifetime.

Although Bernard was a merchant of happiness, he himself suffered demons. What he feared most was the possibility of losing his 3-star rating. One evening, a few days before his death, he returned home and told his wife that the press wanted to kill him. A French restaurant guide—one which was not as influential as Michelin, the guide that has issued the all important 3 stars—had lowered its rating of La Côte d'Or. A newspaper article predicted that Michelin would also be taking away a star. The story was not true. In its new guide, Michelin continued the 3-star rating. Bernard was aware of that fact, but took his life anyway.

Bernard’s maître d' for twenty years recalls his employer’s final weeks as very difficult. He was depressed, extremely tired, and convinced he was failing. In spite of reassurances, Bernard felt he was not living up to his own standards of professional achievement and thus took his life.

Interpretive Comments

Each year, approximately 1,000,000 people worldwide end their lives. Suicide rates vary greatly by country, race, gender, and age. The rate of suicide in England is little more than half that of that in the United States. White Americans are twice as likely as Black Americans to end their lives. Although women are more likely to *attempt* suicide, men are significantly more likely to *succeed*. The suicide rate also increases significantly as men age and those who have been depressed in the past (which is true of Bernard Loiseau) have a much greater risk of suicide. In fact, the risk is five times that of the general population.

People rarely commit suicide while in the depths of depression. Instead, the risk increases when they begin to rebound and, thus, have the added energy and initiative to follow through. In Bernard’s case, the struggle for perfection likely contributed to his finally saying “no” to life. In spite of claiming that the

press wanted to kill him, he may have felt that the threatened loss of rating was actually his own fault, would likely repeat itself, and would negatively impact everything else worthwhile in his life.

Discussion Questions

1. What do you think was the primary cause of Bernard Loiseau's suicide?
2. Identify the components of Bernard's pessimistic explanatory style?
3. Was Bernard's suicide inevitable? What forms of therapy might be useful in treating potential victims of suicide?

John Nash: “A Beautiful Mind”

Length: 4:50 minutes

Source: “*John Nash’s Beautiful Mind*” *60 Minutes* (CBS News)

Relevant Lecture/Textbook Topics:

- ▶ Psychological Disorders
- ▶ Therapy

Description

John Nash, a brilliant mathematician and a winner of the Nobel Prize, suffered from schizophrenia for many years. In 1958, Nash was enjoying a remarkable career and had married a beautiful wife. But shortly after his thirtieth birthday, the same year that *Fortune* magazine named him a mathematical star, he began to imagine conspiracies and see hidden messages that did not exist. Reflecting back with amusement, Nash suggests that at the time these experiences left him feeling exceptionally “enlightened.”

Schizophrenia affects up to one percent of adults and has no cure. Thus, many victims spend time in and out of institutions, just as John Nash did many times during the 1960s. Initially, the police brought Nash in for treatment—an experience he later described as torture. He felt he was being treated like an animal.

Nash was brilliant, creative, and abrasive. Wandering the streets as a homeless person, he appeared to be a zombie—probably as a result of having undergone insulin therapy. As he was being considered for a Nobel Peace Prize, there was concern he might do something bizarre or shocking. Nonetheless, in 1994 Nash received the prize for his work in economics.

“Recognition is a cure for many ills,” wrote Howard Kuhn, Nash’s friend and colleague. Kuhn claims that his friend was a changed man after receiving the Nobel Prize. Nash became socially responsive, and his life story was told in the popular feature film “A Beautiful Mind” starring Russell Crowe.

Nash’s son Johnny shares both his father’s talent for mathematics and his schizophrenia. Johnny, who has also earned a doctorate, has always wanted to follow in his father’s footsteps and match his accomplishments. Nash observes that his son would do better if he could think more logically and rationally.

When Nash is asked whether he thinks he reasoned his way out of his illness, he replies that he “became disillusioned with his delusions.”

Interpretive Comments

As this clip indicates, about 1 in 100 people will develop schizophrenia. Typically, it strikes in late adolescence or early adulthood, and males are slightly more vulnerable than females. Schizophrenia occurs in all cultures. Its symptoms include disorganized and delusional thinking, disturbed perceptions, and inappropriate emotions or actions. Among its most dramatic symptoms (which Nash also evidenced) are delusions (false beliefs) and hallucinations (false perceptions). Schizophrenia has a genetic component and the occurrence of schizophrenia increases to 1 in 10 if a family member has it. Interestingly, Nash’s son Johnny is also a victim of schizophrenia.

Experts are divided on the portrayal of schizophrenia shown in *A Beautiful Mind*, the feature film based on John Nash's life. Certainly, it illustrates how this serious illness may strike anyone as well as how it can prove incapacitating. Also, John Nash's specific case fosters empathy for those suffering from serious psychological disorders. But, on the other hand, the film does not make clear that the insulin shock therapy Nash received in the early 1960s is no longer used or that treatments, including the utilization of drug therapies, have improved dramatically. In addition, some critics would argue that the notion that one can overcome the illness without professional help is dangerous. Most of those who suffer from schizophrenia do not have Nash's inner resources.

Discussion Questions

1. How does Nash's case illustrate the major symptoms of schizophrenia?
2. What do you believe may have been the major cause of Nash's schizophrenia?
3. Do you believe we can reason ourselves out of a major psychological disorder? Why or why not?

Therapy

Mentally Ill Chemical Abusers: A Community Problem

Length: 5:20 minutes

Source: “*Wild Man of West 96th Street*” 60 Minutes (CBS News)

Relevant Lecture/Textbook Topics:

- ▶ Therapy
- ▶ Psychological Disorders
- ▶ Drugs

Description

This video raises important questions regarding society’s treatment of severely disordered and homeless persons who represent a danger to themselves and others when under the influence of drugs.

Larry, the wild man of West 96th Street, arrived seven years ago. Residents got used to seeing him wander through traffic and talk to himself like so many other homeless, mentally ill persons in the neighborhood. However, as time passed, his behavior became more bizarre and menacing. One resident who had originally befriended Larry now actively seeks to get him off her street. She reports that he scares motorists by jumping unpredictably on to their cars hoods. He threw a piece of concrete through *her* car window, causing considerable damage. Residents are now fearful of leaving their homes if they see Larry on the street.

Larry has been diagnosed with paranoid schizophrenia. He suffers from irreversible brain damage, the result of an accident that occurred while he served in Vietnam. Each month he receives \$3000 in veteran benefits, which he wastes on drugs. After that, he ends up back on the street. He fights off the police officers who try to bring him into custody as an emotionally disturbed person. Each time that he is picked up, he is brought to jail or to the psychiatric emergency room of a hospital and held until the drugs are out of his system. He then becomes calm and docile and is released because he is no longer a threat. The cycle repeats over and over.

The assistant district attorney explains that the criminal justice system can do nothing more unless Larry harms someone. His misdemeanors are not serious enough to hold him in jail. In court he is typically meek and rational. The attorney believes that because the criminal justice system cannot keep Larry off the streets, he should be held in the mental health system. However, he cannot be involuntarily committed to a mental hospital because, once his system is clear of cocaine, he is not in imminent danger. Thus, the only place for Larry and the 150,000 people like him is back on the street.

Interpretive Comments

Homeless, psychologically-disordered persons who are typically not a danger to themselves or others may, under the influence of drugs, pose a serious risk. However, as long as they commit no serious crime, they cannot be incarcerated for any extended period time and are released. Unfortunately, the cycle often repeats itself. These cases are further complicated by the fact that people who suffer psychological disorders cannot be involuntarily committed to a psychiatric hospital because, once they are free of drugs, they are no longer dangerous. In virtually all states, a person can only be committed against his will if he

is mentally ill and a danger to himself or others. Larry, along with many others who share his characteristics, raises the very difficult issue of how we balance individual liberty with the government's obligation to protect its citizens.

Discussion Questions

1. To what degree do you believe Larry is responsible for his conduct? Explain your answer.
2. How should society deal with its "Larrys?"
3. Do you believe there is any alternative to either a prison or a psychiatric hospital for Larry? Explain your answer.

When Treatment Leads to Execution: Mental Health and the Law

Length: 7:05 minutes

Source: “*Doctor’s Dilemma*” 60 Minutes (CBS News)

Relevant Lecture/Textbook Topics:

- ▶ Therapy
- ▶ Psychological Disorders
- ▶ Ethical Issues

Description

Students are typically fascinated by questions about the relationship between psychological disorder and criminal behavior. You may want to present this troubling case study while discussing issues of mental competence, treatment, and punishment. The case also raises important questions about the death penalty.

Ten years ago, Claude was sentenced to death for the brutal murder of a 16-year-old boy. While he awaited execution, the court appointed attorney Carla Ryan to handle his appeal. Questioning Claude’s sanity, she asked the court for a psychiatric evaluation of her client. Both the doctor that Carla selected and the one chosen by the state found that the death-row inmate was not competent. Thus the court, unable to execute Claude, sent him to the state hospital where chief psychiatrist Jerry Dennis diagnosed him as suffering from paranoid schizophrenia.

Claude could only be executed if he recovered from the disorder. His treatment was the responsibility of Dr. Dennis, who had taken the Hippocratic oath promising to do no harm. Furthermore, if he medicated Claude he would have violated the American Medical Association’s code of ethics, which states physicians should not treat patients to restore their competence so that they can be executed. Dr. Dennis placed Claude on a low dose of medication, which would alleviate his suffering but not restore his competence.

Arizona’s Attorney General sought another doctor to treat Claude. Nelson Bennett, a psychiatrist from Georgia, was brought onto the case to answer the question of whether Claude was suffering and thus could be treated. Instead of answering that question, Bennett found him competent. The judgment nullified the diagnoses of four other psychiatrists. Although the matter is now out of Dr. Dennis’s hands, he worries that Claude may be put to death even though he is not competent and has no idea of what it means to be executed.

Carla Ryan’s effort to get Claude’s sentence changed to life imprisonment failed. If necessary, she intends to appeal his case all the way to the United States Supreme Court.

Interpretive Comments

A United States Department of Justice study found that about 16 percent of the U.S. inmate population suffers from severe psychological disorders. Claude’s case is not unique. Charles Singleton was executed by the state of Arkansas after being forcibly medicated with antipsychotic drugs in order to make him mentally competent so that he could then be put to death. In a Texas case, Larry Robison was twice hospitalized for paranoid schizophrenia. When his insurance coverage expired, he was discharged. He subsequently killed five people and was executed.

More generally, many people who have been executed or who are presently on death row are limited by mental retardation or motivated by delusional voices. Historically, the insanity defense requires proof that the defendant was incapable of distinguishing between right and wrong at the time the crime was committed. In some jurisdictions, the defense must establish that the defendant was unable to control his behavior at the time of the offense. To be mentally competent to be executed, death row inmates must understand why they have received the death penalty and the effect that the penalty will have.

In discussing whether the death penalty deters homicide, you might note that research indicates that states with the penalty do not have lower homicide rates. After instituting the death penalty, states do not see their rates drop. Furthermore, homicide has not increased in states that have abandoned the death penalty. Nonetheless, the U.S. Supreme Court persists in maintaining “the death penalty undoubtedly is a significant deterrent.”

Discussion Questions

1. Are people who suffer from a psychological disorder responsible for their behavior? Explain your answer.
2. What do you believe should be done in Claude’s case?
3. Do you favor the death penalty? Why or why not?

Social Psychology

Obedience and Authority: A Laboratory Demonstration

Length: 6:05 minutes

Source: *Lab Rats* (BBC Motion Gallery)

Relevant Lecture/Textbook Topics:

- ▶ Social Psychology
- ▶ Research Ethics

Description

You may choose to show this video while introducing the social-psychological literature on conformity. It is particularly relevant to a discussion of Stanley Milgram's classic obedience studies.

The narrator opens this segment by explaining how a tiny camera passed through the digestive tract is used to measure how research participants cope with stress.

The purpose of the study is to assess our willingness to obey an authority. The experimenter (the authority) explains that she is interested in understanding the effect of adrenaline on taste. First, participants will rate the taste of chocolate on a scale from 1 to 10. Next, they will face a series of increasingly unpleasant experiences and each time rate the chocolate again. The hypothesis, as presented to the participants, is that increases in adrenaline (produced by the unpleasant experiences) will impact their taste ratings. However, the real question to be answered is the extent to which people obey the instructions of an authority.

The study begins with the participants rating the taste of chocolate. The researcher then presents the first unpleasant experience, which is to take a deep breath of a rotting fish. All comply and again rate the taste of chocolate. Next, the experimenter instructs each participant to dig out a fish eye. Again, there is full compliance. Although the participants appear calm, the tiny cameras within their digestive systems signal increased stress.

The experimenter then uncovers a large container of swarming maggots. As the participants watch and rate the chocolate, they show signs of increased emotion—including short, clipped speech. Told to place their hands in the maggot container, the participants again follow orders. Even when asked to place a maggot on the tip of their tongue and then finally to swallow it, the participants obey. Full compliance is accompanied by high levels of stress, as measured by increased blood flow to the stomach and air bubbles in the intestine. In summary, people often unquestionably obey someone they perceive to be an authority figure, even if means enduring very unpleasant, stress-producing experiences.

Interpretive Comments

Stanley Milgram's studies of obedience to authority are perhaps the most famous and controversial in all of psychology. Conducted at Yale University in the early 1960s, the studies examined research participants' responses to Milgram's commands to shock a learner for errors made while mastering a simple task. The participants, torn between obeying either the experimenter's commands or the learner's pleas to stop the shocks, usually chose to obey the experimenter—even though that obedience presumably

meant harming the learner. Participants were most likely to obey when the authority figure was nearby and was supported by a prestigious institution. In addition, compliance was higher when the victim (the learner) was depersonalized or at a distance.

The deception and stress that were part of Milgram's obedience studies resulted in vigorous debate over research ethics. After learning of the deception and the actual purpose of the research, virtually none of Milgram's participants regretted taking part in his study. Later, when a psychiatrist interviewed 40 of the "teachers" (the participants) who had most agonized over their obedience, none appeared to suffer permanent emotional aftereffects.

Discussion Questions

1. Why do we obey authority figures?
2. Are some people more likely than others to obey an authority? Explain your answer.
3. Do you think it is permissible for researchers to use deception in their studies? Why or why not?

The Wisdom of Groups

Length: 7:25 minutes

Source: CBS Sunday Morning “*The Crowd Knows Best*” (CBS News)

Relevant Lecture/Textbook Topics:

- ▶ Social Psychology

Description

This video provides a good introduction to the question of how groups affect our behavior. It can stimulate classroom discussion on the possible limits or benefits of social influence. Interacting with others can have both bad and good effects.

Do groups make wise judgments? James Surowiecki, author of *The Wisdom of Crowds*, suggests that under the right circumstances a group of people can be smarter than the smartest single group member. By successfully tapping the knowledge of a large group, we can improve our decisions. We can even improve our predictions about the future. At the turn of the last century, Francis Galton averaged fair-goers estimates of the weight of an ox and found the average was just one pound less than the actual weight.

Taking a similar problem to Times Square, Surowiecki and the narrator ask passersby to judge the number of jellybeans in a large jar. Surowiecki argues that the crowd will be much smarter than the average person.

At the horse races, playing the odds usually pays off. The odds on the horses are set purely by the crowd. Every single person who bets affects the outcome. Similarly, in buying stocks, people are offering their best judgment on what a stock is worth. It is very hard for even the smartest money managers to do better than the stock market as a whole. This explains why index funds with holdings from an entire sector of the market beat managed funds where the experts select stocks. But crowds can go wrong, admits Surowiecki, when diversity breaks down or when people pay too much attention to what those immediately around them are doing.

The Internet site NewsFutures enables anyone to bet on the likelihood of almost any specific future event. The crowd’s predictions prove accurate. Corporations use the Internet site for information on how to market their goods because it taps directly into the collective intelligence of the audience. Similarly, the crowd’s judgment of the success of future movies and even of likely Oscar winners is typically better than that of the experts.

The actual number of jellybeans in the jar was 1369. The crowd’s average guess was 1247. No single guess was closer.

Interpretive Comments

Research using a variety of intellectual tasks has shown that two or more heads are better than one. For example, given challenging logic problems, three, four, or five heads perform better than one. Interacting groups of eyewitnesses also tend to give accounts that are more accurate than those provided by the average isolated individual. By critiquing one another, several individuals may enable the group to avoid some forms of cognitive bias and produce higher-quality ideas. In weather forecasting, two forecasters

come up with a forecast that is more accurate than either arrives at working along. Surowiecki claims that Google has become a dominant search engine by harnessing the wisdom of the crowds. Google interprets a link to Page X as a vote for Page X, and weighs most heavily links from pages that are themselves highly ranked. By harnessing the democratic character of the Internet, Google takes a fraction of a second to lead users to what they want.

At the same time, group influence can be destructive. Submerged in a group that provides anonymity, we have a tendency to loaf or to have our worst impulses expressed in lootings, riots, and lynchings. Discussion in groups can enhance mutual racism and hostility. It may also suppress dissent that leads to groupthink and disastrous decisions. In short, group influence can be both good and bad for us.

Discussion Questions

1. Do you more strongly believe that “two heads are better than one” or that “too many cooks spoil the broth?” Defend your answer.
2. Can you provide examples of how group interaction can have negative as well as positive effects? Cite a specific example of how a group has been beneficial to you as well as an example of how a group has been detrimental.

Interpersonal Attraction: Clothes Make the Man

Length: 4:20 minutes

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

Relevant Lecture/Textbook Topics:

- ▶ Social Psychology

Description

This video segment explores how physical appearance affects our evaluations of other people. Peter is a divorced, 37-year-old political science lecturer. He describes himself as short, skinny, and not very good looking.

Observers are asked to assess Peter as he stands behind a store window on a busy city street. He is dressed casually in jeans and a t-shirt. Females think that Peter holds a low-status job with a low income and they overestimate his age. Most observers perceive him as unattractive. Past research indicates that women are attracted to men who can provide resources. When asked, however, women tell investigators that money is not one of their priorities. In fact, women in this clip *specifically* state that they are not attracted to men who are status-driven or money-oriented.

The next day, researchers give Peter a more affluent look. He wears a suit coat, white shirt, and sunglasses. This time, female observers’ judgments are quite different. One observer even sees him as “sexy.” He is thought to have higher-status employment accompanied by a higher income. Most importantly, Peter is perceived as significantly more attractive. Obviously, physical appearance, which includes clothing, impacts our social judgments.

Interpretive Comments

Research indicates that physical appearance strongly impacts our judgments of other people. Findings suggest the presence of a physical-attractiveness stereotype—that is, the presumption that physically attractive people possess other socially desirable traits. In short, we tend to believe that what is *beautiful* is *good*. In this particular demonstration, the evaluation extends to clothing.

Physical attractiveness has wide-ranging effects. We believe that, in comparison to unattractive people, attractive people are healthier, happier, more empathic, more successful and more socially-skilled. Attractive, well-dressed job applicants are more likely to make a favorable impression on employers and to enjoy greater occupational success. Evolutionary psychologists report that females are particularly attracted to males with economic resources and social status. Females prefer mates who show a potential for long-term mating and long-term investment in their joint offspring. Males judge women as more attractive if they have a youthful appearance. By choosing healthy, fertile-appearing women as mates, males increase their chances of sending their genes into the future.

Discussion Questions

1. How important is physical appearance in our overall evaluation of other people? Explain your answer.
2. When evaluating other people, are males and females equally sensitive to physical appearance? Explain your answer.
3. What characteristics do males and females look for in a potential mate? How do the characteristics differ?

Liking and Imitation: The Sincerest Form of Flattery

Length: 2:20 minutes

Source: “*Making Friends*” *The Human Mind* (BBC Motion Gallery)

Relevant Lecture/Textbook Topics:

- ▶ Social Psychology

Description

This video can be used in a discussion of either social influence or social attraction.

How does other people’s behavior influence our responses to them? For example, do we tend to mirror the behavior of those we like but not the behavior of those we dislike?

In this study, an adult male (an actor) interacts either positively or negatively with research participants. In the first condition, he is friendly, warm, and agreeable when relating to the participants who come to discuss various subjects (e.g., their favorite films). In the second condition, he is unfriendly, cool, and difficult. Whether he is acting positively or negatively, he moves his body in very deliberate and specific ways during the course of his face-to-face interaction with the participant. For example, he rubs his eyes, folds his hands, puts his arms behind his head, or scratches his face.

A camera carefully records the interaction, including the body movements, of both the actor and the participant. Gradually, as the conversation unfolds, the participants interacting with the friendly actor begin to copy him. On the other hand, the participants conversing with the unfriendly actor do not imitate him. The narrator concludes that, because the participants liked “Mr. Nice,” their minds prompted them to mimic him, reflecting a subconscious attempt to strengthen the bond between them.

Interpretive Comments

The *chameleon effect* refers to our natural tendency to mimic the behavior of others. Unconsciously mimicking others’ gestures, expressions, and even voice tones helps us feel what they are feeling. It is part of empathy. In fact, the most empathic people mimic the most.

This segment suggests that we are particularly likely to imitate those we like, in an effort to strengthen our connections with them. Not surprisingly, those who are most eager to fit in with a group are especially prone to nonconscious mimicry. Other lines of research indicate that those who mimic the most are indeed liked the most.

Behavior tends to be contagious. Even chimps are more likely to yawn after observing another chimp yawn. If a group of people gazes upward, passersby will tend to do the same. Short order cooks and bartenders “seed” their tip containers with money to suggest that others have given. Even “illnesses” can be contagious. After the 9/11 terrorist attacks, more than two dozen schools had outbreaks of children reporting red rashes, which lead parents and school administrators to wonder whether biological terrorism was at work.

Discussion Questions

1. What are the independent and dependent variables in this study?
2. The video suggests that we mimic those whom we like? Do you think we also like those who mimic us? Why or why not?
3. Besides friendliness, what other characteristics may be important in determining whether we mimic another person?

Whom Do We Help?

Length: 3:30 minutes

Source: *Have a Go Heroes* (BBC Motion Gallery)

Relevant Lecture/Textbook Topics:

- ▶ Social Psychology

Description

In addition to addressing the questions of why and when we help, the literature on altruism seeks to identify the characteristics of those whom we are most likely to help.

In the opening scene, a female actress pretends to be in serious distress as she collapses on a busy city street. Passersby quickly come to her aid. The researcher suggests that we may be more likely to help females (in contrast to males) because we feel there is more we can do for them or because of empathy. In addition, the actress appeared to be a middle-class person and we may be less likely to come to negative conclusions about why a middle-class person (in contrast to someone from a lower class) is in need of help. One passerby discloses how her own past need for help has made her more responsive to others in distress.

In the next scene, a male holding a bottle of beer collapses on the same city street. Although passersby notice him, they choose not to intervene on his behalf. Observers may assume he is homeless, drunk, and less deserving of help. Thus, they are reluctant to intervene on his behalf. After seven minutes, someone finally comes to the victim's aid. The young male who helps explains that he thought something might be severely wrong with man and, with no one else intervening, he decided to do something.

Interpretive Comments

Many studies have compared help received by male and female victims. Most of these studies have involved brief encounters with strangers in need. Women offered equal amounts of assistance to males and females, whereas men offered more assistance when the persons in need were female. Furthermore, men were more likely to help attractive, rather than unattractive, women. Observers have speculated that in some cases a man's helpfulness may be motivated by something other than genuine altruism. Other lines of research indicate that women not only receive more offers of help in certain circumstances (for example, if they are motorists with a flat tire), they also seek more assistance. They are twice as likely to seek medical and psychiatric help.

The fact that the male victim in this demonstration is holding a bottle of beer is undoubtedly important in understanding observers' responses. We are more likely to help those whose need does not appear to be due to their own negligence. That is, we are more likely to intervene on behalf of those we perceive as deserving our help.

Discussion Questions

1. Why might strangers be more likely to help a woman than a man?
2. Do you think men or women are more likely to offer help to someone in distress? Why?
3. What motivates people to help a stranger in distress?

Student Video Tool Kit for Introductory Psychology

CONTENTS

*The following videos are available within the Online Video Tool Kit for Introductory Psychology for students. Students can view the video and any notes their instructors have uploaded to the video activity. They then take a short, multiple-choice quiz that reports to their instructors' online gradebook. Instructors can also upload their own open-ended questions to each video activity. **NOTE: Videos denoted with an asterisk (*) are also available on a student CD-ROM. Contact your sales representative for ordering information, or visit www.worthvideotoolkit.com.***

An Introduction to Psychological Science

- Why Do People Help?: Explaining Behavior*
- Does Self-Confidence Intimidate Others?
- Schachter's Affiliation Experiment*
- Ethics in Human Research: Violating One's Privacy?*
- Ethics in Animal Research: The Sad Case of Booe the Chimp

Neuroscience and Behavior

- Neural Communication: Impulse Transmission Across the Synapse*
- Chemically-Induced Hallucinations: Studies of Anesthetic Drugs
- Parkinson's Disease: A Case Study
- Treating Parkinson's Disease: Deep Brain Electrode Implantation
- Mapping the Brain Through Electrical Stimulation*
- Compulsive Gambling and the Brain's Pleasure Center
- Planning Life Goals, and the Frontal Lobe*
- Language and Brain Plasticity*
- Rewiring the Brain
- The Split Brain: Lessons on Language, Vision, and Free Will*
- The Split Brain: Lessons on Cognition and the Cerebral Hemispheres

Nature and Nurture

- The Nature–Nurture Issue
- Nature Versus Nurture: Growing Up Apart*
- 100 Years Old and Counting: Psychological and Biological Factors
- Designer Babies?
- Openness to Casual Sex: A Study of Men Versus Women*
- The Art of Listening: Males Versus Females*
- Evolutionary Psychology and Sex Differences

The Developing Person

- Theory of Mind: Taking the Perspective of Others*
- Piaget's Conservation-of-Liquid Task*

Today's Overscheduled Children
Teen Boys: Emerging Sexuality
Teen Girls: Emerging Sexuality
Do Adolescents Lack Empathy?*

Echo Boomers: Understanding Today's College Students
Alzheimer's Disease
Old Age: Thinking and Moving at the Same Time
Healthy Aging: The Power of Positive Thinking

Sensation and Perception

"Blindsight": Seeing Without Awareness*
Pickpockets, Placebos, and Pain: The Role of Expectations
Coping with Pain
"Supertasters"
The "Red Hot" Chili-Eating Contest: Sensitivity to Taste
Synesthesia: The Man Who Tastes Words
Visual Attention: Piecing Things Together*
Seeing the World Upside Down*
Losing One's Touch: Living Without Proprioception*
The Man Who Cannot Recognize Faces

States of Consciousness

Automatic Skills: Disrupting a Pilot's Performance
Sleep and Sleeplessness: The Current Scene*
The Effects of Sleep Deprivation: Three Brave Souls
Sleep Terror Disorder
Hypnosis: An Altered Mental State?*Hypnosis: Medical and Psychological Applications
The Nature and Abuse of Ecstasy (MDMA)*

Learning

Pavlov's Discovery of Classical Conditioning*
Classical Conditioning and the Immune System: Combating Lupus*
Thorndike's Puzzle Box*
Do Video Games Teach People to be Violent?*

Memory

An Amazing Memory
Living Without Memory*
Retrieval: A Journey Into Memory*
A Pill for Forgetting
Creating False Memories: A Laboratory Study*

Thinking, Language, and Intelligence

Problem Solving in Genus *Corvus* (Crows, Ravens, and Magpies)*
Can Chimpanzees Plan Ahead?*

Teaching Language to Chimpanzees*
How Intelligent Are Animals?
Savant Music Skills*
Savant Art Skills: In Autism and Dementia
Locking Away The “Feebleminded”: A Shameful History

Motivation

Eating and Weight Gain: Genetic Engineering*
Overcoming Anorexia Nervosa*
Purging Food
Sexual Dysfunctions and Their Treatments
Homosexuality and the Nature-Nurture Debate*

Emotions, Stress, and Health

Emotion = Arousal Plus Interpretation*
Emotions and Facial Expression*
Do Body Smells Reveal Fear and Happiness?
Rage: One Woman’s Story and Treatment
The Search For Happiness
The Development of Disgust*
Measuring Stress While Running with the Bulls
The Stress Response
Selye’s Stress Response Studies*
Stress and the Immune System: Caretakers at Risk
Fighting Cancer: Mobilizing the Immune System

Personality

From *Freud: The Hidden Nature of Man*: Personality Structure: Id, Ego, and Superego*
Repression: Reality or Myth?
Personality and the Brain*
A Happiness Trait?*Self-Image: Body Dissatisfaction Among Teenage Girls
Genes and Personality

Psychological Disorders

ADHD and the Family
Experiencing Anxiety*
Obsessive-Compulsive Disorder: A Young Mother’s Struggle*
Those Who Hoard
Trichotillomania: Pulling Out One’s Hair
Beyond Perfection: Female Body Dysmorphic Disorder
PTSD: Returning from Iraq
Suicide: Case of the “3-Star” Chef
Postpartum Psychosis: The Case of Andrea Yates*
John Nash: “A Beautiful Mind”

Therapy

Treating OCD: Exposure and Response Prevention*
City of Gheel: Community Mental Health at its Best*
Mentally Ill Chemical Abusers: A Community Problem
When Treatment Leads to Execution: Mental Health and the Law
Early Treatment of Mental Disorders*

Social Psychology

The Stanford Prison Study: The Power of the Situation*
Milgram's Obedience Studies*
Obedience and Authority: A Laboratory Demonstration
The Wisdom of Groups
Interpersonal Attraction: Clothes Make the Man
Liking and Imitation: The Sincerest Form of Flattery
Whom Do We Help?
Bystander Apathy: Failing to Help Others in Distress*

--- 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 2003

- 1) In the 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 select **Movie from File**, locate the folder that contains the video, and then double-click the video you want.

...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) 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**.
- 3) To insert a video from the **Clip Gallery**, locate the folder that contains the video, and then double-click the video you want to insert it into the slide.
- 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.

...in MAC Office 2008

- 1) Click the slide that you want to add the movie to.
- 2) On the **Standard** toolbar, click **Media**, and then click **Insert Movie**.
- 3) Find the file that you want, and then double-click it.
- 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>.

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