Medical Textbook on Psychology

WARNING!
This book contains provocative material not for children or the sexually immature.

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Introduction
Nature and Nurture Shape who we are. Our genetic tendencies and the lessons and conditioning we get in life make us who we are. One person in twenty is a psychopath who does not care about the welfare of others or in right or wrong. One person in twenty is over concerned with right and wrong and is willing to die for his rights. This can be a savior or hero Complex

The other people are happy to just go along to get along. They are followers. They follow and they will follow a psychopath or a savior for they often do not know who is who and right or wrong can be twisted in many ways especially by a psychopath.

Psychology has developed with many theories and ideas to describe the human condition. This book is a brief introduction to the major fields of thought in psychology.
Medical Textbook Overview of Psychology

In preparing a medical textbook to over view Psychology there are some major issues that need to be discussed in more details than they have ever been discussed before.

We must start with a science background of the fifth grade education that we are made of atoms and electrons are the outer component of these electrons. The electrons never touch; they react to each other thru energetic fields. Thus we are made of energy fields and the basic concept of our mass is flawed. No one has ever saw an electron and we have no ability to ever perceive what truly we are so any theory becomes true at one level and false at another. We are truly Energetic beings.

The issues of Bio-diversity versus the Bio-normalcy are one of these issues. The basic concepts of the human instincts need to be outlined and study the major aberrations of instinctual feelings. The human has so many individual variances and just a few common psychological traits it makes psychology difficult. There are left handed cross preference areas and many more normal abnormalities. Being normal is perhaps erroneous, and being abnormal might be healthy.

There must be an outline of the religious teachings as that they are a reflection of the instinctual background.

The idea that the word area of the brain is the all powerful level is also flawed. The word area gets little one percent of one percent of one percent of one percent of one percent of one percent of one percent of one percent of one percent of one percent of one percent of one percent of one percent of one percent of one percent of one percent of one percent of one percent of one percent of one percent of one percent of one percent of what’s happening so it does not have direct insights to real life. We cannot build a psychology on just verbal talk.
We must briefly review all major theories and drive them together to blend a common easy to use system of clinical psychology for therapists.

There are over one hundred trillion cells in the human body. Each cell is doing fantastic incomprehensible mathematical procedures. There is an innate intelligence beyond our comprehension to which we must be humble. So ten to the sixtieth bits of data are being transported to the brain, and the reticular formation filters them so that less than a million cells of the verbal brain. So the verbal brain is only aware of one percent of the happenings in the body. The non-verbal body electric is aware of the total. And there is a non-verbal unconscious that directs us. It is electrically reactive and it is the heart of our lives. It takes us places and our verbal minds make up reason to explain why we are there. Many people are completely unaware of their unconscious and they struggle with every action. Others are more in tune and understand most of their actions. Only a small few are really in tune and live harmonious lives.

The two body problem is easily solvable. This has been used by science for hundreds of years. A ball falls to earth, and we can calculate the two forces and get a good result. But when there are three, it gets very difficult, but still solvable, and when there are more bodies there is an unsolvable result. Science has struggled to reduce everything to the two body problem. This is called reductionism. So to test a drug, they reduce the human to just one variable like blood pressure, give a drug and measure the change in blood pressure. Advanced Science has learned that complex systems such as the human body are fractal in nature, and reductionism fails, so they have developed CHAOS theory. When more and more variables are measured we observe that there is complex results. Things never repeat, and some small stimuli can have big effects. This is called the butterfly effect. The EPFX device uses fractal chaos theory and was called the butterfly device in a book called "The Butterfly Effect". What the brain does is an exercise of the small mind. All of science has no developed more non-linear analytical systems, all except medicine, which depends on reductionism to sell patent SIROHIC drugs.

The Verbal Mind must learn Humility and Respect and learn to restrain its arrogance.

But the unconscious body electric is a very complex (fractal) and it is not a machine. What it will react to is sometimes not understood. A woman inhales a piece of a potato chip, she gets a cough. Takes a cough suppressant, the body devolves to a state around the chip in the lungs. The chip is exposed to smoke toxins and virus and the cyst goes cancerous as the body last attempt to remove the toxic chip. The unconscious might see the problem is the chip not the cancer. The body electric might see the cancer as a helpful mechanism of detox. The EPFX allows a insight to the non-verbal body electric.
Psychology Medical Textbook on

Everything entered the Universe via a Singularity, thus all photons from the Big Bang share a twin commonality.

The Cosmic BG Microwave Radiation photons share all information. These photons tickle the free protons they encounter, thus there is scientific proof for a Collective Unconscious, a Universe Consciousness, the Mind of God...

There are truly powers of the mind and truly a Subspace Connectivity of all things in the Universe.

The Black Hole at the center of the Milky Way will align with the Sun on 20/12/2012, this will pull at the unbalanced Gravity of the Earth.

If these 100,000,000 Angels can learn to use their power of mind together maybe they can avert the gravity catastrophe, but standing in their way is the Small Minded Scientists who do not have the power of mind to see the power of the mind...

The Angel has come to Save Humanity and lead us to 1,000 years of Peace, Prosperity and Harmony.

Original Sin

Don't eat the apple.


Thank God for Reverse Psychology

THE BIBLE SAYS THERE WILL BE 100,000,000 ANGELS AT THE END TO SAVE THE HUMANITY
Years ago I was excited to see some infomercials about alternative medicine treatments for diseases. The speaker talked a good show and sold me to buy his books. But there was absolutely no real advice in the books, only multilevel companies with more to buy. This made me angry and then I decided to write the best self help books on natural medicine. Editing and collecting the best in real substantiated advice.

Desire has written two incredible books and made movies to go with them. What to do for influenza and specifically what to do when the next major virus hits. A movie and a self help book designed to really help you and your families understand what to do to protect yourself.

Also cancer is such a devastating disease, and there are ways to help yourself in the kitchen with cooking for cancer patients. Full advice from soup to nuts on exercise, meditation, cooking, and more. Coupled with a video for the science of how it works.

The health care debate is bringing a question of health and care. In this incredible new book Desire has outlined a very thorough review of the real problems of Health Care. This book will tell you the truth the chemical companies do not want you to hear.
Cognitive dissonance

According to cognitive dissonance theory, there is a tendency for individuals to seek consistency among their cognitions (i.e., beliefs, opinions). When there is an inconsistency between attitudes or behaviors (dissonance), something must change to eliminate the dissonance. In the case of a discrepancy between attitudes and behavior, it is most likely that the attitude will change to accommodate the behavior.

Two factors affect the strength of the dissonance: the number of dissonant beliefs, and the importance attached to each belief. There are three ways to eliminate dissonance: (1) reduce the importance of the dissonant beliefs, (2) add more consonant beliefs that outweigh the dissonant beliefs, or (3) change the dissonant beliefs so that they are no longer inconsistent.

Dissonance occurs most often in situations where an individual must choose between two incompatible beliefs or actions. The greatest dissonance is created when the two alternatives are equally attractive. Furthermore, attitude change is more likely in the direction of less incentive since this results in lower dissonance. In this respect, dissonance theory is contradictory to most behavioral theories which would predict greater attitude change with increased incentive (i.e., reinforcement).

Scope/Application:
Dissonance theory applies to all situations involving attitude formation and change. It is especially relevant to decision-making and problem-solving.

Example:
Consider someone who buys an expensive car but discovers that it is not comfortable on long drives. Dissonance exists between their beliefs that they have bought a good car and that a good car should be comfortable. Dissonance could be eliminated by deciding that it does not matter since the car is mainly used for short trips (reducing the importance of the dissonant belief) or focusing on the cars strengths such as safety, appearance, handling (thereby adding more consonant beliefs). The dissonance could also be eliminated by getting rid of the car, but this behavior is a lot harder to achieve than changing beliefs.

Principles:
1. Dissonance results when an individual must choose between attitudes and behaviors that are contradictory.
2. Dissonance can be eliminated by reducing the importance of the conflicting beliefs, acquiring new beliefs that change the balance, or removing the conflicting attitude or behavior.
The Fox and the Grapes by Aesop. When the fox fails to reach the grapes, he decides he does not want them after all, an example of adaptive preference formation, designed to reduce cognitive dissonance.[1]

Cognitive dissonance is an uncomfortable feeling caused by holding conflicting ideas simultaneously. The theory of cognitive dissonance proposes that people have a motivational drive to reduce dissonance. They do this by changing their attitudes, beliefs, and actions.[2] Dissonance is also reduced by justifying, blaming, and denying. It is one of the most influential and extensively studied theories in social psychology. A closely related term, cognitive disequilibrium, was coined by Jean Piaget to refer to the experience of a discrepancy between something new and something already known or believed.

Experience can clash with expectations, as, for example, with buyer’s remorse following the purchase of an expensive item. In a state of dissonance, people may feel surprise,[2] dread, guilt, anger, or embarrassment. People are biased to think of their choices as correct, despite any contrary evidence. This bias gives dissonance theory its predictive power, shedding light on otherwise puzzling irrational and destructive behavior.

A classical example of this idea (and the origin of the expression «sour grapes») is expressed in the fable The Fox and the Grapes by Aesop (ca. 620–564 BCE). In the story, a fox sees some high-hanging grapes and wishes to eat them. When the fox is unable to think of a way to reach them, he surmises that the grapes are probably not worth eating, as they must not be ripe or that they are sour. This example follows a pattern: one desires something, finds it unattainable, and reduces one’s dissonance by criticizing it. Jon Elster calls this pattern «adaptive preference formation.»[1]
The most famous case in the early study of cognitive dissonance was described by Leon Festinger and others in the book When Prophecy Fails.[3] The authors infiltrated a group that was expecting the imminent end of the world on a certain date. When that prediction failed, the movement did not disintegrate, but grew instead. By sharing cult beliefs with others, they gained acceptance and thus reduced their own dissonance (see further discussion below).

Smoking is often postulated as an example of cognitive dissonance because it is widely accepted that cigarettes can cause lung cancer, yet virtually everyone wants to live a long and healthy life. In terms of the theory, the desire to live a long life is dissonant with the activity of doing something that will most likely shorten one’s life. The tension produced by these contradictory ideas can be reduced by quitting smoking, denying the evidence of lung cancer, or justifying one’s smoking. [4] For example, smokers could rationalize their behavior by concluding that only a few smokers become ill, that it only happens to very heavy smokers, or that if smoking does not kill them, something else will. [5] While chemical addiction may operate in addition to cognitive dissonance for existing smokers, new smokers may exhibit a simpler case of the latter.

This case of dissonance could also be interpreted in terms of a threat to the self-concept.[6] The thought, «I am increasing my risk of lung cancer» is dissonant with the self-related belief, «I am a smart, reasonable person who makes good decisions.» Because it is often easier to make excuses than it is to change behavior, dissonance theory leads to the conclusion that humans are sometimes rationalizing and not always rational beings.

Other related phenomena

There are a number of phenomena that relate to cognitive dissonance theory:

- effort justification, where working for something causes someone to like it more;
- Self-evaluation maintenance theory, in which the skills or interests that define us can cause dissonance when they appear superior in others close to us;
- counter-attitudinal advocacy, where behaviors supporting a dissonant attitude cause one to adopt that attitude;
- post-decision dissonance, where one justifies an unalterable decision as the right one;
- insufficient punishment, the practice of punishing a person without doing it so harshly that they can tell themselves "I still like the behavior, but I avoid it because of the devastating punishment";
- overjustification effect, when an intrinsic (internal) motivation is shifted to extrinsic motivations through external reward;
- balance theory, a general tendency to seek consonance between our views of others, and our views of their attitudes;
- self-handicapping, avoiding effort in the hopes of keeping potential failure from hurting self-esteem;
One situation that may create dissonance is when someone does a favor for a person that they dislike. Here, the dissonance is between those negative feelings for the other person, and the awareness of having expended effort to help them. Cognitive dissonance theory predicts that people will try to resolve this dissonance, by adopting a more positive attitude towards the other person. Several experiments have borne out this prediction.

This has been named the Ben Franklin effect because it was anticipated by Franklin when he served in the Pennsylvania legislature in the 18th Century. In his autobiography, he explains how he dealt with the animosity of a rival legislator:

Having heard that he had in his library a certain very scarce and curious book, I wrote a note to him, expressing my desire of perusing that book, and requesting he would do me the favour of lending it to me for a few days. He sent it immediately, and I returned it in about a week with another note, expressing strongly my sense of the favour. When we next met in the House, he spoke to me (which he had never done before), and with great civility; and he ever after manifested...
a readiness to serve me on all occasions, so that we became great friends, and our friendship continued to his death. This is another instance of the truth of an old maxim I had learned, which says, "He that has once done you a kindness will be more ready to do you another, than he whom you yourself have obliged."[9]

A counterpart to this effect is when someone's actions hurt another person, whom they regard positively or neutrally. In this case, one way to resolve the dissonance is to think more negatively about that person, so that they seem to deserve what happened to them.[7]

Variants

An overarching principle of cognitive dissonance is that it involves the formation of an idea or emotion in conflict with a fundamental element of the self-concept, such as "I am a successful/functional person", "I am a good person", or "I made the right decision." The anxiety that comes with the possibility of having made a bad decision can lead to rationalization, the tendency to create additional reasons or justifications to support one's choices. A person who just spent too much money on a new car might decide that the new vehicle is much less likely to break down than his or her old car. This belief may or may not be true, but it would reduce dissonance and make the person feel better. Dissonance can also lead to confirmation bias, the denial of disconfirming evidence, and other ego defense mechanisms.

Within this overarching principle, there are two main forms of dissonance: hedonistic dissonance and moral dissonance (Holland, Meertens & Van-Vugt, 2002).

- Hedonistic dissonance is elicited when people act in a way which results in negative consequences for themselves. For instance, a person is late for a meeting because of traffic but could have been on time had he taken the subway.
- Moral dissonance is aroused when people act in a way that causes negative consequence for others. For instance, cheating and lying.

Theory and research

Most of the research on cognitive dissonance takes the form of one of four major paradigms. Important research generated by the theory has been concerned with the consequences of exposure to information inconsistent with a prior belief, what happens after individuals act in ways that are inconsistent with their prior attitudes, what happens after individuals make decisions, and the effects of effort expenditure.

The Belief Disconfirmation Paradigm

Dissonance is aroused when people are confronted with information that is inconsistent with their beliefs. If the dissonance is not reduced by changing one's belief, the dissonance can result in misperception or rejection or refutation of the information, seeking support from others who share the beliefs, and attempting to persuade others to restore consonance.

An early version of cognitive dissonance theory appeared in Leon Festinger's 1956 book, When Prophecy Fails. This book gave an inside account of the increasing belief which sometimes follows the failure of a cult's prophecy. The believers met at a pre-determined place and time, believing they alone would survive the Earth's destruction. The appointed time came and passed without incident. They faced acute cognitive dissonance: had they been the victim of a hoax? Had they donated their worldly possessions in vain? Most members chose to believe something less dissonant: the aliens had given earth a second chance, and the group was now empowered to spread the word: earth-spoiling must stop. The group dramatically increased their proselytism despite the failed prophecy.[10]

The Induced-Compliance Paradigm

In Festinger and Carlsmith's classic 1959 experiment, students were asked to spend an hour on boring and tedious tasks (e.g., turning pegs a quarter turn, over and over again). The tasks were designed to generate a strong, negative attitude. Once the subjects had done this, the experimenters asked some of them to do a simple favor. They were asked to talk to another subject (actually an actor) and persuade them that the tasks were interesting and engaging. Some participants were paid $20 (inflation adjusted to 2010, this equates to $150) for this favor, another group was paid $1 (or $7.50 in "2010 dollars"), and a control group was not asked to perform the favor.
When asked to rate the boring tasks at the conclusion of the study (not in the presence of the other "subject"), those in the $1 group rated them more positively than those in the $20 and control groups. This was explained by Festinger and Carlsmith as evidence for cognitive dissonance. The researchers theorized that people experienced dissonance between the conflicting cognitions, "I told someone that the task was interesting," and "I actually found it boring." When paid only $1, students were forced to internalize the attitude they were induced to express, because they had no other justification. Those in the $20 condition, however, had an obvious external justification for their behavior, and thus experienced less dissonance.[11]

In subsequent experiments, an alternative method of inducing dissonance has become common. In this research, experimenters use counter-attitudinal essay-writing, in which people are paid varying amounts of money (e.g. $1 or $10) for writing essays expressing opinions contrary to their own. People paid only a small amount of money have less external justification for their inconsistency and must produce internal justification in order to reduce the high degree of dissonance that they are experiencing.

A variant of the induced-compliance paradigm is the forbidden toy paradigm. An experiment by Aronson and Carlsmith in 1963 examined self-justification in children.[12] In this experiment, children were left in a room with a variety of toys, including a highly desirable toy steam-shovel (or other toy). Upon leaving the room, the experimenter told half the children that there would be a severe punishment if they played with that particular toy and told the other half that there would be a mild punishment. All of the children in the study refrained from playing with the toy. Later, when the children were told that they could freely play with whatever toy they wanted, the ones in the mild punishment condition were less likely to play with the toy, even though the threat had been removed. The children who were only mildly threatened had to justify to themselves why they did not play with the toy. The degree of punishment by itself was not strong enough, so the children had to convince themselves that the toy was not worth playing with in order to resolve their dissonance.[12]

**The Free-Choice Paradigm**

In a different type of experiment conducted by Jack Brehm, 225 female students rated a series of common appliances and were then allowed to choose one of two appliances to take home as a gift. A second round of ratings showed that the participants increased their ratings of the item they chose, and lowered their ratings of the rejected item.[13] This can be explained in terms of cognitive dissonance. When making a difficult decision, there are always aspects of the rejected choice that one finds appealing and these features are dissonant with choosing something else. In other words, the cognition, «I chose X» is dissonant with the cognition, «There are some things I like about Y.» More recent research has found similar results in four-year-old children and capuchin monkeys.[14]

**The Effort-Justification Paradigm**

Dissonance is aroused whenever individuals voluntarily engage in an unpleasant activity to achieve some desired goal. Dissonance can be reduced by exaggerating the desirability of the goal. Aronson & Mills[15] had individuals undergo a severe or mild «initiation» in order to become a member of a group. In the severe-initiation condition, the individuals engaged in an embarrassing activity, the group turned out to be very dull and boring. The individuals in the severe-initiation condition evaluated the group as more interesting than the individuals in the mild-initiation condition. All of the above paradigms continue to be used in fruitful research.

Washing one’s hands has been shown to eliminate post-decisional dissonance, presumably because the dissonance is often caused by moral disgust (with oneself) which is related to disgust from unsanitary conditions.[16][17]

**Challenges and qualifications**

Daryl Bem was an early critic of cognitive dissonance theory. He proposed self-perception theory as a more parsimonious alternative explanation of the experimental results. According to Bem, people do not think much about their attitudes, let alone whether they are in conflict. Bem interpreted people in the Festinger and Carlsmith study or the induced-compliance paradigm as inferring their attitudes from their behavior. Thus, when asked «Did you find the task interesting?» they decided that they must have found it interesting because that is what they told someone. Bem suggested that people paid $20 had a salient, external incentive for their behavior and were likely to perceive the money as their reason for saying the task was interesting, rather than concluding that they actually found it interesting.[18][19]

In many experimental situations, Bem’s theory and Festinger’s dissonance theory make identical predictions, but only dissonance theory predicts the presence of unpleasant tension or arousal. Lab experiments have verified the presence of arousal in dissonance situations.[20][21] This provides support for cognitive dissonance theory and makes it unlikely that self-perception by itself can account for all the laboratory findings.
Elliott Aronson’s 1968 restatement of the theory gave a central role to the self-concept.[22]

In 1969, Elliott Aronson reformulated the theory by linking it to the self-concept. According to this new interpretation, cognitive dissonance does not arise because people experience dissonance between conflicting cognitions. Instead, it occurs when people see their actions as conflicting with their normally positive view of themselves. Thus, about the original Festinger and Carlsmith study using the induced-compliance paradigm, Aronson stated that the dissonance was between the cognition, “I am an honest person” and the cognition, “I lied to someone about finding the task interesting.”[6] Other psychologists have argued that maintaining cognitive consistency is a way to protect public self-image, rather than private self-concept.[23] However, a recent result[24] seems to rule out such an explanation by showing reevaluation of items following a choice even when people have forgotten their choices.

During the 1980s, Cooper and Fazio argued that dissonance was caused by aversive consequences, rather than inconsistency. According to this interpretation, the fact that lying is wrong and hurtful, not the inconsistency between cognitions, is what makes people feel bad.[25] Subsequent research, however, found that people experience dissonance even when they feel they have not done anything wrong. For example, Harmon-Jones and colleagues showed that people experience dissonance even when the consequences of their statements are beneficial—as when they convince sexually active students to use condoms, when they, themselves, are not using condoms.[26]

Chen and colleagues have criticized the free-choice paradigm and have suggested that the “Rank, choice, rank” method of studying dissonance is invalid.[27] They argue that research design relies on the assumption that, if the subject rates options differently in the second survey, then the subject’s attitudes towards the options have therefore changed. They show that there are other reasons one might get different rankings in the second survey—perhaps the subjects were largely indifferent between choices. Although some follow-up studies have found supportive evidence for Chen’s concerns,[28] other studies that have controlled for Chen’s concerns have not, instead suggesting that the mere act of making a choice can indeed change preferences.[14][29][30] Nevertheless, this issue remains under active investigation.[31]

Cognitive dissonance in the brain

Using fMRI, Van Veen and colleagues investigated the neural basis of cognitive dissonance in a modified version of the classic induced compliance paradigm. While in the scanner, participants “argued” that the uncomfortable MRI environment was nevertheless a pleasant experience. The researchers replicated the basic induced compliance findings: participants in an experimental group enjoyed the scanner more than participants in a control group who simply were paid to make their argument. Importantly, responding counter-attitudinally activated the dorsal anterior cingulate cortex and the anterior insular cortex; furthermore, the degree to which these regions were activated predicted individual participants’ degree of attitude change. Van Veen and colleagues argue that these findings support the original dissonance theory by Festinger, and support the “conflict theory” of anterior cingulate functioning.[32]

Using the free choice paradigm, Sharot and colleagues have shown that after making a choice, activity in the striatum changes to reflect the new evaluation of the choice object, increasing if the object was chosen and decreasing if it was rejected.[33] Follow-up studies have largely confirmed these results.[29][34]

Modeling in neural networks

Neural network models of cognition have provided the necessary framework to integrate the empirical research done on cognitive dissonance and attitudes into one model of explanation of attitude formation and change.[35]

Various neural network models have been developed to predict how cognitive dissonance will influence an individual’s attitude and behavior. These include:

- Parallel Constraint Satisfaction Processes[35]
- The Meta-Cognitive Model (MCM) of attitudes[36]
- Adaptive connectionist model of cognitive dissonance[37]
- Attitudes as constraint satisfaction model[38]

See also

- Affective forecasting
- Antiprocess
- Buyer’s remorse is a form of post-decision dissonance.
- Choice-supportive bias is a memory bias that makes past choices seem better than they actually were.
- Cognitive bias
- Cognitive distortion
- Cognitive inertia
- Congruence principle
- Cultural dissonance is dissonance on a larger scale.
- Double bind is a communicative situation where a person receives different or contradictory messages.
- Doublethink is a concept present in George Orwell’s Nineteen Eighty-Four that allows a person to hold two contradictory ideas simultaneously and accept both of them as correct.
- Effort justification is the tendency to attribute a greater (than objective) value to an outcome which demands a great effort in order to resolve a dissonance.
- Emotional conflict is the presence in the subconscious of different and opposing emotions concerning the same situation.
- Faith (religion)
- Malarchaeology
- The Great Disappointment of 1844 is an example of cognitive dissonance in a religious context.
- Illusion-of-truth effect states that a person is more likely to believe a familiar statement than an unfamiliar one.
- Information overload
- Speciesism
- True-believer syndrome demonstrates carrying a post-cognitive-dissonance belief regardless of new information.
Example of Belief Disconfirmation Paradigm


Chances are if you’ve ever had an infection caused by bacteria - like an ear infection, strep throat, or the common childhood skin infection impetigo - your doctor probably prescribed you an antibiotic.

Antibiotics are medicines used for treating infections caused by bacteria, and are available in many forms including ointments, pills and liquid medicine. Also known as antimicrobial drugs, antibiotics have saved countless lives but misuse and overuse of these medicines, have contributed to a phenomenon known as antibiotic resistance. This resistance develops when potentially harmful bacteria change in a way that reduces or eliminates the effectiveness of antibiotics.

A Global Public Health Concern

Antibiotic resistance is a growing public health concern worldwide. When a person is infected with an antibiotic-resistant bacterium, not only is treatment of that patient more difficult, but the antibiotic-resistant bacterium may spread to other people.

When antibiotics don’t work, the result can be
- longer illnesses
- more complicated illnesses
- more doctor visits
- the use of stronger and more expensive medicines
- more deaths caused by bacterial infections

Examples of the types of bacteria that have become resistant to antibiotics include the species that cause skin infections, meningitis, sexually transmitted diseases and respiratory tract infections such as pneumonia.

In cooperation with other government agencies, the Food and Drug Administration (FDA) has launched several initiatives to address antibiotic resistance.

FDA has issued drug labeling regulations, emphasizing the careful use of antibiotics. The regulations encourage health care professionals to prescribe antibiotics only when medically necessary, and to counsel patients

In This Issue
- Antibiotic Resistance
- Flu Vaccine
- Learn About It Online: Partnership with WebMD
- Health Events Calendar

Continued on page 2
Example of Belief Disconfirmation Paradigm

Dr Gary Huffnagle with Sarah Wernick

The Probiotics Revolution

**WARNING:** Antibiotics don’t work for viruses like colds and the flu. Using them for viruses will **NOT** make you feel better or get back to work faster.

Antibiotics are strong medicines. Keep them that way. Prevent antibiotic resistance. Antibiotics don’t fight viruses—they fight bacteria. Using antibiotics for viruses can put you at risk of getting a bacterial infection that is resistant to antibiotic treatment. Talk to your healthcare provider about antibiotics, visit [www.cdc.gov/getsmart](http://www.cdc.gov/getsmart) or call 1-800-CDC-INFO to learn more.

Taking antibiotics for viral infections such as a cold, a cough, or the flu will **NOT**:
- Cure the infection
- Keep other people from catching it
- Help you feel better

Breakthrough discoveries to:
- Prevent allergies and asthma
- Fight IBS
- Enhance immune function
- Curb inflammation
Example of Belief Disconfirmation Paradigm

Unfortunately, no amount of antibiotics will get rid of your cold.

The best way to treat most colds, coughs or sore throats is plenty of fluids and rest. For more advice talk to your pharmacist or doctor.

© Crown copyright 2008. DH/SHD/Lead 1:8-8/6/08/DE/EM/2R/3E
Example of Belief Disconfirmation Paradigm

Stop giving antibiotics for sniffles, doctors told

By Daniel Martin
Political Reporter

The QQC trivector device passes a changing low level field thru the item and generates a sophisticated picture of the electrical field of the item. It makes a 22x22x22 3D field that means over 10,000 separate frequencies to make one pattern. The shark senses these fields and they are amplified by the salt water. This study leads to the discovery of the electro-sense. Researchers have found that humans also have such a system but it is weak.

Every item has such a field. Living things have a changing reactive field, non-living things have a static field non-changing. We now know that the electro-sense in humans is the surface of the skin and most concentrated in the sense of smell.

So by measuring the Voltammetric electrical field of items and then amplifying the field 10 million times we get to really measure the patient’s reaction to items, really. So by applying a trivector Voltammetric pattern we can measure the response or evoked potential and see the patient’s reactivity.

So 5 million dollars were spent buying and procuring the items in the matrix and testing these items with a patented registered in the matrix and testing these items with a patented device. This is why the QQC device works so well, at each treatment from calibration, test etc. These QQC signatures are at the heart. Real science, real technology, real legal compliance, real items, real results, real honesty and integrity.

In 5th grade we were taught we are made up of atoms made of electrons and protons and neutrons. The electrons in the outer level are so charged they never touch. We are made of electrical fields.

The QQC is a very advanced patented technology with a CE mark. It measures in a very sophisticated process the Voltammetric electrical field of any item. If you look up voltammetry in Google you see thousands of references for a world recognized very scientific chemical process also referred to as Polarography. You can see our patented process at http://www.voltametriaqqc.ro/

If you need more information on the QQC and purchase details please get in touch with us.

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B.F. Skinner’s Behavioral Theory

People have long known that people respond to a system of rewards and punishments. Behaviors you reward or pay attention to (which is a reward) you get more of, they will increase in occurrence. Behaviors you ignore will lessen or go to extinction as it is said in Behavior theory. While to say that this is a generalization of the theories of well-known behaviorist B.F. Skinner would be an understatement it is accurately descriptive of the most basic aspect of his beliefs. Operant behavior and operant conditioning, Skinner’s most widely acclaimed work, is based on a system of both positive and negative reinforcement.

Operant Behavior and Conditioning

While it is commonly known that behavior is affected by its consequences, Skinner’s theory of operant conditioning further states that the process does not require repeated efforts, but is instead an immediate reaction to a familiar stimulus. In an experiment with a rat using food as a reward (which would work for many of us, as well!), the rat was placed in a box and over the course of a few days, food was occasionally delivered through an automatic dispenser. Before long, the rat approached the food tray as soon as the sound of the dispenser was heard, clearly anticipating the arrival of more food. In the next step of the experiment, researchers raised a small lever on the wall of the box and when the rat touched it, the food dispenser provided a snack. After the first self-induced meal, the rat repeatedly touched the lever in order to get more food (smart rat!). To the hungry rodent, the sound of the dispenser became a reinforcer when it was first associated with feedings and continued to be so until after a while, researchers stopped providing food when the lever was pressed. Soon after that, the rat stopped touching the lever.

Positive and Negative Reinforcers

Reinforcers can be positive or negative and both are used to strengthen behavior. Unlike animals, humans (the big ones as well as the little ones) often respond to verbal operants, taking advice, listening to the warnings of others, and obeying given rules and laws, even without having personally experienced any negative consequences from disobeying. The knowledge of what could happen if certain behaviors are chosen can be enough to keep us from acting in certain ways. Although this isn’t always the case, with many lessons being learned “the hard way,” the ability to benefit from the experiences of others as examples is a uniquely human characteristic.

One of the aspects important to human behavior, though, is the feelings associated with behavior that is controlled by conditioning. When previous behaviors have been rewarded, children are likely to repeat those behaviors happily and willingly, feeling that they are doing what they ‘want’ to be doing. If, on the other hand, children choose behaviors in order to avoid a repeat of negative reinforcement, they may behave appropriately, but will be inclined to feel that their freedoms are being squelched. In reality, the actual freedom still exists, of course. Children, like the rest of us, are free to behave in any manner that we choose, as long as we are willing to accept the consequences of our actions.

Behavior Modification

Behavior modification typically consists of changing the consequences of an action or applying new consequences to guide behavior. In the past, most parents chose to control the behavior of their children by using negative reinforcement, that is, misbehavior or disregarding house rules resulted in punishments. Today, many parents (and even school systems and other childhood authorities) are inclined to provide positive reinforcement to encourage good behavior, reserving negative reinforcement techniques only as a last resort. While the results are not usually as immediate, they are typically seen as healthier, providing children with appropriate behavioral guidelines while allowing them their dignity.

Applying Behavior Modification

Obviously, it benefits both children and their parents when positive reinforcement techniques are chosen as a means of guiding children’s behaviors, making for a more pleasant and respectfully run household. Even babies and very young children respond well to a system where rewards exist, repeating behaviors when they elicit big smiles and hugs from Mum and Dad. As children grow, using positive reinforcement to encourage appropriate behavior can help parents to encourage their kids continued cooperation.

Shaping (in Behavioral theory and the SCIO)

The differential reinforcement of successive approximations, or more commonly, shaping is a conditioning procedure used primarily in the experimental analysis of behavior. It was introduced by B.F. Skinner[1] with pigeons and extended to dogs, dolphins, humans and other species. In shaping, the form of an existing response is gradually changed across successive trials towards a desired target behavior by rewarding exact segments of behavior. Skinner’s explanation of shaping was this:

We first give the bird food when it turns slightly in the direction of the spot from any part of the cage. This increases the frequency of such behavior. We then withhold reinforcement until a slight movement is made toward the spot. This again alters the general distribution of behavior without producing a new unit. We continue by reinforcing positions successively closer to the spot, then by reinforcing only when the head is moved slightly forward, and finally only when the beak actually makes contact with the spot. ... The original probability of the response in its final form is very low; in some cases it may even be zero. In this way we can build complicated operants which would never appear in the repertoire of the organism otherwise. By reinforcing a series of successive approximations, we bring a rare response to a very high probability in a short time. ... The total act of turning toward the spot from any point in the box, walking toward it, raising the head, and striking the spot may seem to be a functionally coherent unit of behavior; but it is constructed by a continual process of differential reinforcement from undifferentiated behavior, just as the sculptor shapes his figure from a lump of clay.[2]
**Successive approximations**

The successive approximations reinforced are increasingly accurate approximations of a response desired by a trainer. As training progresses the trainer stops reinforcing the less accurate approximations. For example, in training a rat to press a lever, the following successive approximations might be reinforced:

1. simply turning toward the lever will be reinforced
2. only stepping toward the lever will be reinforced
3. only moving to within a specified distance from the lever will be reinforced
4. only touching the lever with any part of the body, such as the nose, will be reinforced
5. only touching the lever with a specified paw will be reinforced
6. only depressing the lever partially with the specified paw will be reinforced
7. only depressing the lever completely with the specified paw will be reinforced

The trainer would start by reinforcing all behaviors in the first category, then restrict reinforcement to responses in the second category, and then progressively restrict reinforcement to each successive, more accurate approximation. As training progresses, the response reinforced becomes progressively more like the desired behavior.

Successive approximation should not be confused with feedback processes as feedback generally refers to numerous types of consequences. Notably, consequences can also include punishment, while shaping instead relies on the use of positive reinforcement. Feedback also often denotes a consequence for a specific response out of a range of responses, such as the production of a desired note on a musical instrument versus the production of incorrect notes. Shaping, on the other hand, involves the reinforcement of each intermediate response that further resembles the desired response.

Not all approximations are successful. Marian and Keller Breland (students of B.F. Skinner) used their knowledge of autoshaping to try and make a pig and a raccoon deposit a coin in a bank. However the sign-tracking failed. The coin, which was being reinforced with food, began to be perceived as the food reward itself by the animals. They acted towards the coin in the same way that they may have acted towards a snack.[3] Animals that act this way are more prone to addictive behaviors than others. Sometimes these animals may even be called "sign-trackers." If the animal did not behave in this manner and actually placed the coin in the bank, it may have been labeled a "goal-tracker".

**Practical applications**

Shaping is used in two areas in psychology: training operant responses in lab animals, and in applied behavior analysis or behavior modification to change human or animal behaviors considered to be maladaptive or dysfunctional. It also plays an important role in commercial animal training. Shaping assists in "discrimination", which is the ability to tell the difference between stimuli that are and are not reinforced, and in "generalization", which is the application of a response learned in one situation to a different but similar situation.[4]

**Autoshaping**

Autoshaping (sometimes called "sign tracking") is any of a variety of experimental procedures used to study classical conditioning in pigeons. In autoshaping, in contrast to shaping, food comes irrespective of the behavior of the pigeon. In its simplest form, autoshaping is very similar to Pavlov’s salivary conditioning procedure using dogs. In Pavlov’s best-known procedure, a short audible tone reliably preceded the presentation of food to dogs. The dogs naturally, unconditionally, salivated (unconditioned response) to the food (unconditioned stimulus) given them, but through learning, conditionally, came to salivate (conditioned response) to the tone (conditioned stimulus) that predicted food. In autoshaping, a light is reliably turned on shortly before pigeons are given food. The pigeons naturally, unconditionally, peck at the food given them, but through learning, conditionally, came to peck at the light source that predicts food, in most experiments, a lighted key.

A lot of research is done with mice involving autoshaping as well. Since mice and humans share approximately 90% of the same genes, a lot of research is done to try and discover which genes do what in humans by using mice first. If successful, the field of medicine can be further progressed. Autoshaping provides an interesting conundrum for B.F. Skinner’s assertion that one must employ shaping as a method for teaching a pigeon to peck a key. After all, if an animal can shape itself, why use the laborious process of shaping? Autoshaping also contradicts Skinner’s principle of reinforcement. During autoshaping, food comes irrespective of the behavior of the animal. If reinforcement were occurring, random behaviors should increase in frequency because they should have been rewarded by random food. Nonetheless, key-pecking reliably develops in pigeons,[5] even if this behavior had never been rewarded.

But, the clearest evidence that autoshaping is under Pavlovian and not Skinnerian control was found using the omission procedure. In that procedure,[6] food is normally scheduled for delivery following each keylight presentation, except in cases in which the bird actually emits a pecking response at the key, in which case food is withheld. Here, if the behavior were under instrumental...
The SCIO uses shaping as a reward technique to help give the patient an anchor and a way to give themselves a suggestive and practical way of continuing the therapy.

See also
- Animal testing
- Behavior therapy
- Chaining
- B.F. Skinner
- Operant conditioning
- Applied behavior analysis
- Society for Quantitative Analysis of Behavior

B. F. Skinner’s entire system is based on operant conditioning. The organism is in the process of “operating” on the environment, which in ordinary terms means it is bouncing around its world, doing what it does. During this “operating,” the organism encounters a special kind of stimulus, called a reinforcing stimulus, or simply a reinforcer. This special stimulus has the effect of increasing the operant -- that is, the behavior occurring just before the reinforcer. This is operant conditioning: “the behavior is followed by a consequence, and the nature of the consequence modifies the organism’s tendency to repeat the behavior in the future.”

Imagine a rat in a cage. This is a special cage (called, in fact, a “Skinner box”) that has a bar or pedal on one wall that, when pressed, causes a little mechanism to release a food pellet into the cage. The rat is bouncing around the cage, doing whatever it is rats do, when he accidentally presses the bar and -- hey, presto! -- a food pellet falls into the cage! The operant is the behavior just prior to the reinforcer, which is the food pellet, of course. In no time at all, the rat is furiously peddling away at the bar, hoarding his pile of pellets in the corner of the cage.

A behavior followed by a reinforcing stimulus results in an increased probability of that behavior occurring in the future.

What if you don’t give the rat any more pellets? Apparently, he’s no fool, and after a few futile attempts, he stops his bar-pressing behavior. This is called extinction of the operant behavior. A behavior no longer followed by the reinforcing stimulus results in a decreased probability of that behavior occurring in the future.

Now, if you were to turn the pellet machine back on, so that pressing the bar again provides the rat with pellets, the behavior of bar-pushing will “pop” right back into existence, much more quickly than it took for the rat to learn the behavior the first time. This is because the return of the reinforcer takes place in the context of a reinforcement history that goes all the way back to the very first time the rat was reinforced for pushing on the bar!
Schedules of reinforcement

Skinner likes to tell about how he “accidentally” -- i.e. operantly -- came across his various discoveries. For example, he talks about running low on food pellets in the middle of a study. Now, these were the days before “Purina rat chow” and the like, so Skinner had to make his own rat pellets, a slow and tedious task. So he decided to reduce the number of reinforcements he gave his rats for whatever behavior he was trying to condition, and, lo and behold, the rats kept up their operant behaviors, and at a stable rate, no less. This is how Skinner discovered schedules of reinforcement!

Continuous reinforcement is the original scenario: Every time that the rat does the behavior (such as pedal-pushing), he gets a rat goodie.

The fixed ratio schedule was the first one Skinner discovered: If the rat presses the pedal three times, say, he gets a goodie. Or five times. Or twenty times. Or “x” times. There is a fixed ratio between behaviors and reinforcers: 3 to 1, 5 to 1, 20 to 1, etc. This is a little like “piece rate” in the clothing manufacturing industry: You get paid so much for so many shirts.

The fixed interval schedule uses a timing device of some sort. If the rat presses the bar at least once during a particular stretch of time (say 20 seconds), then he gets a goodie. If he fails to do so, he doesn’t get a goodie. But even if he hits that bar a hundred times during that 20 seconds, he still only gets one goodie! One strange thing that happens is that the rats tend to “pace” themselves: They slow down the rate of their behavior right after the reinforcer, and speed up when the time for it gets close.

Skinner also looked at variable schedules. Variable ratio means you change the “x” each time -- first it takes 3 presses to get a goodie, then 10, then 1, then 7 and so on. Variable interval means you keep changing the time period -- first 20 seconds, then 5, then 35, then 10 and so on.

In both cases, it keeps the rats on their rat toes. With the variable interval schedule, they no longer “pace” themselves, because they can no longer establish a “rhythm” between behavior and reward. Most importantly, these schedules are very resistant to extinction. It makes sense, if you think about it. If you haven’t gotten a reinforcer for a while, well, it could just be that you are at a particularly “bad” ratio or interval! Just one more bar press, maybe this’ll be the one!

This, according to Skinner, is the mechanism of gambling. You may not win very often, but you never know whether and when you’ll win again. It could be the very next time, and if you don’t get a goodie. But even if he hits that bar a hundred times during that 20 seconds, he still only gets one goodie! One strange thing that happens is that the rats tend to “pace” themselves: They slow down the rate of their behavior right after the reinforcer, and speed up when the time for it gets close.

Aversive stimuli

An aversive stimulus is the opposite of a reinforcing stimulus, something we might find unpleasant or painful. A behavior followed by an aversive stimulus results in a decreased probability of the behavior occurring in the future.

This both defines an aversive stimulus and describes the form of conditioning known as punishment. If you shock a rat for doing x, it’ll do a lot less of x. If you spank Johnny for throwing his toys he will throw his toys less and less (maybe).

On the other hand, if you remove an already active aversive stimulus after a rat or Johnny performs a behavior, you are doing negative reinforcement. If you turn off the electricity when the

I used shaping on one of my daughters once. She was about three or four years old, and was afraid to go down a particular slide. So I picked her up, put her at the end of the slide, asked if she was okay and if she could jump down. She did, of course, and I showered her with praise. I then picked her up and put her a foot or so up the slide, asked her if she was okay, and asked her to slide down and jump off. So far so good. I repeated this again and again, each time moving her a little up the slide, and backing off if she got nervous. Eventually, I could put her at the top of the slide and she could slide all the way down and jump off. Unfortunately, she still couldn’t climb up the ladder, so I was a very busy father for a while.

This is the same method that is used in the therapy called systematic desensitization, invented by another behaviorist named Joseph Wolpe. A person with a phobia -- say of spiders -- would be asked to come up with ten scenarios involving spiders and panic of one degree or another. The first scenario would be a very mild one -- say seeing a small spider at a great distance outdoors. The second would be a little more scary, and so on, until the tenth scenario would involve something totally terrifying -- say a tarantula climbing on your face while you’re driving your car at a hundred miles an hour! The therapist will then teach you how to relax your muscles -- which is incompatible with anxiety. After you practice that for a few days, you come back and you and the therapist go through your scenarios, one step at a time, making sure you stay relaxed, backing off if necessary, until you can finally imagine the tarantula while remaining perfectly tension-free.

This is a technique quite near and dear to me because I did in fact have a spider phobia, and did in fact get rid of it with systematic desensitization. It worked so well that, after one session (beyond the original scenario-writing and muscle-training session) I could go out and pick up a daddy-long-legs. Cool.

Beyond these fairly simple examples, shaping also accounts for the most complex of behaviors. You don’t, for example, become a brain surgeon by stumbling into an operating theater, cutting open someone’s head, successfully removing a tumor, and being rewarded with prestige and a hefty paycheck, along the lines of the rat in the Skinner box. Instead, you are gently shaped by your environment to enjoy certain things, do well in school, take a certain bio class, see a doctor movie perhaps, have a good hospital visit, enter med school, be encouraged to drift towards brain surgery as a speciality, and so on. This could be something your parents were carefully doing to you, as if you were a rat in a cage. But much more likely, this is something that was more or less unintentional.

Shaping

A question Skinner had to deal with was how we get to more complex sorts of behaviors. He responded with the idea of shaping, or “the method of successive approximations.” Basically, it involves first reinforcing a behavior only vaguely similar to the one desired. Once that is established, you look out for variations that come a little closer to what you want, and so on, until you have the animal performing a behavior that would never show up in ordinary life. Skinner and his students have been quite successful in teaching simple animals to do some quite extraordinary things. My favorite is teaching pigeons to bow!!
rat stands on his hind legs, he’ll do a lot more standing. If you stop your perpetually nagging when I finally take out the garbage, I’ll be more likely to take out the garbage (perhaps). You could say it “feels so good” when the aversive stimulus stops, that this serves as a reinforcer!

Behavior followed by the removal of an aversive stimulus results in an increased probability of that behavior occurring in the future.

Notice how difficult it can be to distinguish some forms of negative reinforcement from positive reinforcement: if I starve you, is the food I give you when you do what I want a positive -- i.e. a reinforcer? Or is it the removal of a negative -- i.e. the aversive stimulus of hunger?

Skinner (contrary to some stereotypes that have arisen about behaviorists) doesn’t “approve” of the use of aversive stimuli -- not because of ethics, but because they don’t work well! Notice that I said earlier that Johnny will maybe stop throwing his toys, and that I perhaps will take out the garbage? That’s because whatever was reinforcing the bad behaviors hasn’t been removed, as it would’ve been in the case of extinction. This hidden reinforcer has just been “covered up” with a conflicting aversive stimulus. So, sure, sometimes the child (or me) will behave -- but it still feels good to throw those toys. All Johnny needs to do is wait till you’re out of the room, or find a way to blame it on his brother, or in some way escape the consequences, and he’s back to his old ways. In fact, because Johnny now only gets to enjoy his reinforcer occasionally, he’s gone into a variable schedule of reinforcement, and he’ll be even more resistant to extinction than ever!

**Behavior modification**

Behavior modification -- often referred to as b-mod -- is the therapy technique based on Skinner’s work. It is very straight-forward: Extinguish an undesirable behavior (by removing the reinforcer) and replace it with a desirable behavior by reinforcement. It has been used on all sorts of psychological problems -- addictions, neuroses, shyness, autism, even schizophrenia -- and works particularly well with children. There are examples of back-ward psychotics who haven’t communicated with others for years who have been conditioned to behave themselves in fairly normal ways, such as eating with a knife and fork, taking care of their own hygiene needs, dressing themselves, and so on.

There is an offshoot of b-mod called the token economy. This is used primarily in institutions such as psychiatric hospitals, juvenile halls, and prisons. Certain rules are made explicit in the institution, and behaving yourself appropriately is rewarded with tokens -- poker chips, tickets, funny money, recorded notes, etc. Certain poor behavior is also often followed by a withdrawal of these tokens. The tokens can be traded in for desirable things such as candy, cigarettes, games, movies, time out of the institution, and so on. This has been found to be very effective in maintaining order in these often difficult institutions.

There is a drawback to token economy: When an “inmate” of one of these institutions leaves, they return to an environment that reinforces the kinds of behaviors that got them into the institution in the first place. The psychotic’s family may be thoroughly dysfunctional. The juvenile offender may go right back to “the ‘hood.” No one is giving them tokens for eating politely. The institution in the first place. The psychotic’s family may be thoroughly dysfunctional. The juvenile offender may go right back to “the ‘hood.” No one is giving them tokens for eating politely.

**Skinner II**

Skinner started his career as an English major, writing poems and short stories. He has, of course, written a large number of papers and books on behaviorism. But he will probably be most remembered by the general run of readers for his book Walden II, wherein he describes a utopia-like commune run on his operant principles.

People, especially the religious right, came down hard on his book. They said that his ideas take away our freedom and dignity as human beings. He responded to the sea of criticism with another book (one of his best) called Beyond Freedom and Dignity. He asked: What do we mean when we say we want to be free? Usually we mean we don’t want to be in a society that punishes us for doing what we want to do. Okay -- aversive stimuli don’t work well anyway, so out with them! Instead, we’ll only use reinforcers to “control” society. And if we pick the right reinforcers, we will feel free, because we will be doing what we feel we want!

Likewise for dignity. When we say “She died with dignity,” what do we mean? We mean she kept up her “good” behaviors without any apparent ulterior motives. In fact, she kept her dignity because her reinforcement history has led her to see behaving in that “dignified” manner as more reinforcing than making a scene.

The bad do bad because the bad is rewarded. The good do good because the good is rewarded. There is no true freedom or dignity. Right now, our reinforcers for good and bad behavior are chaotic and out of our control -- it’s a matter of having good or bad luck with your “choice” of parents, teachers, peers, and other influences. Let’s instead take control, as a society, and design our culture in such a way that good gets rewarded and bad gets extinguished! With the right behavioral technology, we can design culture.

Both freedom and dignity are examples of what Skinner calls mentalistic constructs -- unobservable and so useless for a scientific psychology. Other examples include defense mechanisms, the unconscious, archetypes, fictional finalisms, coping strategies, self-actualization, consciousness, even things like hunger and thirst. The most important example is what he refers to as the homunculus -- Latin for “the little man” -- that supposedly resides inside us and is used to explain our behavior, ideas like soul, mind, ego, will, self, and, of course, personality.

Instead, Skinner recommends that psychologists concentrate on observables, that is, the environment and our behavior in it.
The QQC trivector device passes a changing low level field thru the item and generates a sophisticated picture of the electrical field of the item. It is a 22X2X2 3D field that measures over 10,000 separate frequencies to make one pattern. The shark senses these fields and they are complicated by the salt water. This senses these phenomena and it is hypothesized that the electro-sense, and electro-sensitivity, study leads to the discovery of the electro-sense. Researchers are interested to solve this reactivity. This study has such a field in that living things have a constant static field. Living things have a constant static field. Living things have a constant static field that non-living things have a static field. Living things have a constant static field. Living things have a constant static field that non-living things have a static field.

So by measuring the Voltametric electrical field of items and then amplifying the field 10 million times we get to re-rea the patient’s reaction to items. So by applying a trivector Voltametric pattern we can measure the response or evoked potential and see the patient’s reactivity.

So 5 million dollars were spent buying and procuring the items in the matrix and testing these items with a patented registered in the matrix and testing these items with a patented registered in the matrix and testing these items with a patented registered in the matrix and testing these items with a patented registered in the matrix and testing these items with a patented registered in the matrix and testing these items with a patented registered in the matrix. This is the SCIO trivector technology of modern science. This is why the SCIO device works so well, at each treatment from calibration, test etc. These QQC signatures are at the core of the science. Real science, real technology, real legal compliance, real data, real results, real honesty and integrity.

In 5th grade we were taught we are made up of atoms made of electrons and protons and neutrons. The electrons in the outer layer are so charged they never touch. We are made of electrical fields.

The QQC is a very advanced patented trademarked technology with a CE mark. It measures in a very sophisticated process the Voltametric electrical field of any item. If you look up voltametry in Google you see thousands of references for a world recognized very scientific chemical process also referred to as Poligraphy. You can see our patented process at http://www.voltametriaqqc.ro/
Behavioural change theories

Behavioural change theories and models are attempts to explain the reasons behind alterations in individuals’ behavioural patterns. These theories cite environmental, personal, and behavioural characteristics as the major factors in behavioural determination. In recent years, there has been increased interest in the application of these theories in the areas of health, education, criminology, energy and international development with the hope that understanding behavioural change will improve the services offered in these areas.

History

Many of the original works outlining the major theories that are the basis for current knowledge about behavioral change theories were published in the 1970s and 1980s. These include Icek Ajzen’s articles on the Theories of Reasoned Action and Planned Behaviour, Albert Bandura’s writings on Social Cognitive Theory, and James Prochaska and Carlo DiClemente’s works on the Transtheoretical Model. More recently, interest in behavioral change theories has arisen due to their apparent application in areas like health, education, and criminology, leading to further research backed by institutions like the National Institutes of Health and the UK Prime Ministers Strategy Unit. With this renewed interest, however, there is also a shift towards research into understanding the maintenance of behavioral change in addition to broadening the research base for revising current theories that focus on initial change.

General theories and models

Each behavioral change theory or model focuses on different factors in attempting to explain behavioral change. Of the many that exist, the most prevalent are the learning theories, Social Cognitive Theory, Theories of Reasoned Action and Planned Behavior, Trans-theoretical Model and the Health Action Process Approach. Research has also been conducted regarding specific elements of these theories, especially elements like self-efficacy that are common to several of the theories.

Self-efficacy

Self-efficacy is an individual’s impression of their own ability to perform a demanding or challenging task such as facing an exam or undergoing surgery. This impression is based upon factors like the individual’s prior success in the task or in related tasks, the individual’s physiological state, and outside sources of persuasion. Self-efficacy is thought to be predictive of the amount of effort an individual will expend in initiating and maintaining a behavioral change, so although self-efficacy is not a behavioral change theory per se, it is an important element of many of the theories, including the Health Belief Model, the Theory of Planned Behavior and the Health Action Process Approach.

Learning theories/behavior analytic theories of change

From behaviourists like Burrhus Frederic Skinner come the learning theories, which state that complex behaviour is learned gradually through the modification of simpler behaviours.
Imitation and reinforcement play important roles in these theories, which state that individuals learn by duplicating behaviours they observe in others and that rewards are essential to ensuring the repetition of desirable behaviour.[7] As each simple behaviour is established through imitation and subsequent reinforcement, the complex behaviour develops. When verbal behaviour is established the organism can learn through rule-governed behaviour and thus not all action needs to be contingency shaped. Skinner (1957) was one of the first psychologists to recognise the critical role of imitation (what he termed “echoic behavior”) in the learning of language.[8] Behavior analytic theories of change have been quite effective in improving the human condition (see behavior modification, behavior therapy and applied behavior analysis).

**Social Learning/Social Cognitive Theory**

According to the social learning theory, which is also known as the social cognitive theory, behavioral change is determined by environmental, personal, and behavioral elements. Each factor affects each of the others. For example, in congruence with the principles of self-efficacy, an individual’s thoughts affect their behavior and an individual’s characteristics elicit certain responses from the social environment. Likewise, an individual’s environment affects the development of personal characteristics as well as the person’s behavior, and an individual’s behavior may change their environment as well as the way the individual thinks or feels. Social learning theory focuses on the reciprocal interactions between these factors, which are hypothesised to determine behavioral change.[9]

**Theory of Reasoned Action**

The Theory of Reasoned Action assumes that individuals consider a behavior’s consequences before performing the particular behavior. As a result, intention is an important factor in determining behavior and behavioral change. According to Ick Ajzen,[3] intentions develop from an individual’s perception of a behavior as positive or negative together with the individual’s impression of the way their society perceives the same behavior. Thus, personal attitude and social pressure shape intention, which is essential to performance of a behavior and consequently behavioral change.[3]

**Theory of Planned Behavior**

In 1985, Ajzen expanded upon the theory of reasoned action, formulating the Theory of Planned Behaviour, which also emphasizes the role of intention in behavior performance but is intended to cover cases in which a person is not in control of all factors affecting the actual performance of a behavior. As a result, the new theory states that the incidence of actual behavior performance is proportional to the amount of control an individual possesses over the behavior and the strength of the individual’s intention in performing the behavior. In his article, Ajzen[3] further hypothesizes that self-efficacy is important in determining the strength of the individual’s intention to perform a behavior.

**Transtheoretical/Stages of Change Model**

According to the Transtheoretical Model, which is also known as the Stages of Change Model, behavioral change is a five-step process. The five stages, between which individuals may oscillate before achieving complete change, are precontemplation, contemplation, preparation, action, and maintenance.[5] At the precontemplation stage, an individual may or may not be aware of a problem but has no thought of changing their behavior. From precontemplation to contemplation, the individual develops a desire to change a behavior. During preparation, the individual intends to change the behavior within the next month, and during the action stage, the individual begins to exhibit new behavior consistently. An individual finally enters the maintenance stage once they exhibit the new behavior consistently for over six months.[10]

**Health Action Process Approach**

The Health Action Process Approach (HAPA) is designed as a sequence of two continuous self-regulatory processes, a goal-setting phase (motivation) and a goal-pursuit phase (volition). The second phase is subdivided into a pre-action phase and an action phase. Motivational self-efficacy, outcome-expectancies and risk perceptions are assumed to be predictors of intentions. This is the motivational phase of the model. The predictive effect of motivational self-efficacy on behavior is assumed to be mediated by recovery self-efficacy, and the effects of intentions are assumed to be mediated by planning. The latter processes refer to the volitional phase of the model.[11]

**Applications**

Behavioral change theories have potential applications in many areas. Prominent areas of application include healthcare, education, criminal and energy consumption behavior. These issues are important to societal functionality and policy-making, resulting in recent renewed interest in these theories.

**Health**

Get smart poster, intended to raise awareness about appropriate antibiotic use for upper respiratory infections in adults. It explains that antibiotics are not the best answer for a cold or flu.

In the interest of promoting healthy lifestyle development, behavioral change theories have gained recognition for their possible effectiveness in explaining health-related behaviors and providing insight into methods that would encourage individuals to develop and maintain healthy lifestyles.

Specific health applications of behavioral change theories include the development of programs promoting active lifestyles and programs reducing the spread of diseases like AIDS.[5][10] In addition, the National Institutes of Health has, in recent years, funded research to broaden the information base for behavioral change theories.[1]

Models specific to health applications include the Health Belief/Health Action Model, Relapse Prevention Model, the Health Action Process Approach and the I-Change Model. The Health Belief Model, also known as the Health Action Model, states that individuals will alter health-related behavior according to the perceived severity of the threat to their health.[12]

The Relapse Prevention Model concentrates on promoting prolonged healthy behavior by making distinctions between lapses and relapses in an attempt to encourage individuals to maintain healthy lifestyles.[5] The I-Change Model, the Integrated Model for explaining motivational and behavioral change, is derived from the Attitude – Social influence – Self-Efficacy Model.
This model can be considered as an integration of ideas of Ajzen’s Theory of Planned Behavior, Bandura’s Social Cognitive Theory, Prochaska’s Transtheoretical Model, the Health Belief Model, and goal setting theories. Previous versions of this model (referred to as the ASE-model) have been used to explain a variety of types of health behavior. In a similar way, the Health Action Process Approach represents an integration of self-efficacy theory and volition theories.

**Education**

Behavioral change theories can be used as guides in developing effective teaching methods. Since the goal of much education is behavioral change, the understanding of behavior afforded by behavioral change theories provides insight into the formulation of effective teaching methods that tap into the mechanisms of behavioral change. In an era when education programs strive to reach large audiences with varying socioeconomic statuses, the designers of such programs increasingly strive to understand the reasons behind behavioral change in order to understand universal characteristics that may be crucial to program design. [13]

In fact, some of the theories, like the Social Learning Theory and Theory of Planned Behavior, were developed as attempts to improve health education. Because these theories address the interaction between individuals and their environments, they can provide insight into the effectiveness of education programs given a specific set of predetermined conditions, like the social context in which a program will be initiated. [13] Although health education is still the area in which behavioral change theories are most often applied, theories like the Stages of Change Model have begun to be applied in other areas like employee training and developing systems of higher education. [14][15]

**Criminology**

Empirical studies in criminology support behavioral change theories. At the same time, the general theories of behavioral change suggest possible explanations to criminal behavior and methods of correcting deviant behavior. [16] Since deviant behavior correction entails behavioral change, understanding of behavioral change can facilitate the adoption of effective correctional methods in policy-making.

For example, the understanding that deviant behavior like stealing may be learned behavior resulting from reinforcers like hunger satisfaction that are unrelated to criminal behavior can aid the development of social controls that address this underlying issue rather than merely the resultant behavior. [17]

Specific theories that have been applied to criminology include the Social Learning and Differential Association Theories. Social Learning Theory is an element of interaction between individual and their environment explains the development of deviant behavior as a function of an individual’s exposure to a certain behavior and their acquaintances, who can reinforce either socially acceptable or socially unacceptable behavior. [16]

Differential Association Theory, originally formulated by Edwin Sutherland, is a popular, related theoretical explanation of criminal behavior that applies learning theory concepts and asserts that deviant behavior is learned behavior. Jeffery’s [17] reexamination of Sutherland’s original theory adds that because of the necessity of temporal proximity between punishment and behavior for conditioning to occur, the legal system’s application of punishment is more likely to generate law evasion rather than to correct deviant behavior.

**Energy**

Recent years have seen an increased interest in energy consumption reduction based on behavioral change, be it for reasons of climate change mitigation or energy security. [18] The application of behavioral change theories in the field of energy consumption behavior yields interesting insights. For example, it supports criticism of a too narrow focus on individual behavior and a broadening to include social interaction, lifestyles, norms and values as well as technologies and policies - all enabling or constraining behavioral change. [19] Intervention programmes aimed at the change of energy consumption patterns need to take into account that behavioral change is best achieved and maintained if supported by tailored information and changes in context, for example supportive social networks, policies or technologies. [20]

**What Causes Behavior Change?**

The Behavior Model shows that three elements must converge at the same moment for a behavior to occur: Motivation, Ability, and Trigger. When a behavior does not occur, at least one of those three elements is missing.

Using my Behavior Model (FBM) as a guide, designers can identify what stops people from performing behaviors that designers seek. For example, if users are not performing a target behavior, such as rating hotels on a travel web site, the FBM helps designers see what psychological element is lacking.
HISTORY OF THE SCIO AND BIOFEEDBACK

In 1982 Dr. Nelson wrote the first ever treatise on quantum biology and he laid the ground work for the science of the quantum x-ray interface system. First developed in 1985 and registered with the FDA in 1989, the electro-physiological feedback x-ray entered the market place. Day to day improvements have sharpened its operation. There have been over a hundred medical articles and studies published in peer reviewed medical journals on the technology.

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and her friends have spent over 35 million dollars to bring the world a professional and thorough course on Wellness, Naturopathy and Neuro-Electro-Physiology of Biofeedback as Bioresonance.

She is such a humanitarian Angel, she lets you pay for the course videos, books and materials with Karma...

These are the TOP FIVE REASONS to get a Doctorate in Wellness PhD International Medical University degree at home.

1. Getting a degree means you will increase your earning potential. Studies have shown that home study is just as good as attended classes.
2. Study and Complete Courses at Your Own Pace. Use this to maximize the learning.
3. Scheduling Convenience. Work when you are ready to work.
4. Teaching Faculty Who Actually Have Work Experience in Your Field of Study. Global faculty at IMUNE is with worldwide famous doctors.
5. Save Money on Travel, Parking, Childcare, and Books. You save money the world saves energy, this makes you and the world better.
6. Employer Support. Many employers offer tuition reimbursement for employees’ tuition associated with training in their fields. Employers also tend to encourage enrollment in online degree programs because they know employees will be able to go to school and still be able to be committed to their jobs. Don’t be afraid to ask your employer. Every company needs a wellness consultant.

Professor Desiré Dubounet the world’s most famous Naturopath and her friends have spent over 35 million dollars to bring the world a professional and thorough course on Wellness, Naturopathy and Neuro-Electro-Physiology of Biofeedback as Bioresonance. She is such a humanitarian Angel, she lets you pay for the course videos, books and materials with Karma go to www.imune.name for more information.
The FBM also helps academics understand behavior change better. What was once a fuzzy mass of psychological theories now becomes organized and specific when viewed through my Behavior Model.

The FBM highlights three principal elements, each of which has subcomponents. Specifically, the FBM outlines three Core Motivators (Motivation), six Simplicity Factors (Ability), and three type of Triggers. The subcomponents define the larger elements. For example, in the FBM the word Ability refers to the how the six Simplicity Factors work together in the context of a Trigger.

Objections
Behavioral change theories are not universally accepted. Criticisms include the theories’ emphases on individual behavior and a general disregard for the influence of environmental factors on behavior. In addition, as some theories were formulated as guides to understanding behavior while others were designed as frameworks for behavioral interventions, the theories’ purposes are not consistent.[5] Such criticism illuminates the strengths and weaknesses of the theories, showing that there is room for further research into behavioral change theories.[1]
*REMEMBER: THIS WAS DO-ABLE IN 1974!*

Steady tone, near the high end of the hearing range, say, 15,000 Hz

Output is now more or less a steady tone, like timbres, but with

hypothesis embedded.

<table>
<thead>
<tr>
<th>HYPNOTIST'S Voice, varying from, say, 300 Hz to 4,000 Hz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curve below is magnified to show how the F1-voice controls the</td>
</tr>
<tr>
<td>timing of the transmitter's pulses.</td>
</tr>
<tr>
<td>Mic.</td>
</tr>
<tr>
<td>Timing of each microwave pulse is controlled by each down-slope</td>
</tr>
<tr>
<td>crossing of the voice</td>
</tr>
<tr>
<td>wave (Sharp's original 1974 method).</td>
</tr>
</tbody>
</table>

HOW SILENT (CONVERTED-TO-VOICE-FM) HYPNOSIS CAN BE TRANSMITTED

USING A VOICE FREQUENCY MODULATOR TO GENERATE THE "VOICE" THEN PULSED-MICROWAVE VOICE-TO-SKULL FOR DISTANCE AND COVER

http://www.raven1.net/hypho2s.gif

Mar 21/00
Psychology is the science[1] of mind and behavior.[2] Its immediate goal is to understand behavior and mental processes by researching and establishing both general principles and specific cases. [3] For many, the ultimate goal of psychology is to benefit society.[4][5] In this field, a professional practitioner or researcher is called a psychologist, and can be classified as a social scientist, behavioral scientist, or cognitive scientist. Psychologists attempt to understand the role of mental functions in individual and social behavior, while also exploring the physiological and neurobiological processes that underlie certain functions and behaviors. Psychologists explore such concepts as perception, cognition, attention, emotion, phenomenology, motivation, brain functioning, personality, behavior, and interpersonal relationships. Some, especially depth psychologists, also consider the unconscious mind. A psychologist employs empirical methods to infer causal and correlational relationships between psychosocial variables. In addition, or in opposition, to employing empirical and deductive methods, some—especially clinical and counseling psychologists—at times rely upon symbolic interpretation and other inductive techniques. Psychology incorporates research from the social sciences, natural sciences, and humanities, such as philosophy.

While psychological knowledge is often applied to the assessment and treatment of mental health problems, it is also applied to understanding and solving problems in many different spheres of human activity. Although the majority of psychologists are involved in some kind of therapeutic role (clinical, counseling, and school positions), many do scientific research on a wide range of topics related to mental processes and behavior (typically in university psychology departments) or teach such knowledge in academic settings; and some are employed in industrial and organizational settings, and in other areas[6] such as human development and aging, sports, health, the media, law, and forensics.

**Etymology**

The word psychology literally means, “study of the soul” (ψυχή, psukhē, meaning “breath”, “spirit”, or “soul”; and -λογία -logia, translated as “study of” or “research”)[7][8]. The Latin word psychologia was first used by the Croatian humanist and Latinist Marko Marulić in his book, Psychologia de ratione animae humanae in the late 15th century or early 16th century.[9] The earliest known reference to the word psychology in English was by Steven Blankarta in 1693 in The Physical Dictionary which refers to “Anatomy, which treats of the Body, and Psychology, which treats of the Soul.”[10]

Notice the concentration of bump area on the verbal left side of the head, and less concentration on the nonverbal right side.
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**History**

Main article: History of psychology

Wilhelm Wundt (seated) with colleagues in his psychological laboratory, the first of its kind. Wundt is credited with setting up psychology as a field of scientific inquiry independent of the disciplines philosophy and biology.

The study of psychology in a philosophical context dates back to the ancient civilizations of Egypt, Greece, China, India, and Persia. Historians point to the writings of ancient Greek philosophers, such as Thales, Plato, and Aristotle (especially in his De Anima treatise), as the first significant body of work in the West to be rich in psychological thought.

**Structuralism**

Main article: Structuralism (psychology)

German physician Wilhelm Wundt is credited with introducing psychological discovery into a laboratory setting. Known as the «father of experimental psychology," he founded the first psychological laboratory, at Leipzig University, in 1879. Wundt focused on breaking down mental processes into the most basic components. Edward Titchener was another major structuralist thinker.

**Functionalism**

Main article: Functional psychology

Functionalism formed as a reaction to the theories of the structuralist school of thought and was heavily influenced by the work of the American philosopher, scientist and psychologist William James. James felt that psychology should have practical value, and that psychologists should find out how the mind can function to a person’s benefit. In his book, Principles of Psychology, published in 1890, he laid the foundations for many of the questions that psychologists would explore for years to come. Other major functionalist thinkers included John Dewey and Harvey Carr.

Other 19th-century contributors to the field include the German psychologist Hermann Ebbinghaus, a pioneer in the experimental study of memory, who developed quantitative models of learning and forgetting at the University of Berlin; and the Russian-Soviet physiologist Ivan Pavlov, who discovered in dogs a learning process that was later termed “classical conditioning” and applied to human beings.

Starting in the 1950s, the experimental techniques set forth by Wundt, James, Ebbinghaus, and others would be reiterated as experimental psychology became increasingly cognitive—concerned with information and its processing—and, eventually, constituted a part of the wider cognitive science. In its early years, this development had been seen as a «revolution," as it both responded to and reacted against strains of thought—including psychodynamics and behaviorism—that had developed in the meantime.
From the 1890s until his death in 1939, the Austrian physician Sigmund Freud developed psychoanalysis, a method of investigation of the mind and the way one thinks; a systematized set of theories about human behavior; and a form of psychotherapy to treat psychological or emotional distress, especially unconscious conflict. Freud’s psychoanalytic theory was largely based on interpretive methods, introspection and clinical observations. It became very well-known, largely because it tackled subjects such as sexuality, repression, and the unconscious mind as general aspects of psychological development. These were largely considered taboo subjects at the time, and Freud provided a catalyst for them to be openly discussed in polite society. Clinically, Freud helped to pioneer the method of free association and a therapeutic interest in dream interpretation.

Freud had a significant influence on Swiss psychiatrist Carl Jung, whose analytical psychology became an alternative form of depth psychology. Other well-known psychoanalytic scholars of the mid-20th century included psychoanalysts, psychologists, psychiatrists, and philosophers. Among these thinkers were Erik Erikson, Melanie Klein, D.W. Winnicott, Karen Horney, Erich Fromm, John Bowlby and Sigmund Freud’s daughter, Anna Freud. Throughout the 20th century, psychoanalysis evolved into diverse schools of thought, most of which may be classed as Neo-Freudian.

Psychoanalytic theory and therapy were criticized by psychologists and philosophers such as B.F. Skinner, Hans Eysenck, and Karl Popper. Popper, a philosopher of science, argued that Freud’s, as well as Alfred Adler’s, psychoanalytic theories included enough ad hoc safeguards against empirical contradiction to keep the theories outside the realm of scientific inquiry. By contrast, Eysenck maintained that although Freudian ideas could be subjected to experimental science, they had not withstood experimental tests. By the 20th century, psychology departments in American universities had become experimentally oriented, marginalizing Freudian theory and regarding it as a “desiccated and dead” historical artifact. Meanwhile, however, researchers in the emerging field of neuro-psychoanalysis defended some of Freud’s ideas on scientific grounds, while scholars of the humanities maintained that Freud was not a «scientist at all, but ... an interpreter.”

In the United States, behaviorism became the dominant school of thought during the 1950s. Behaviorism was founded in the early 20th century by John B. Watson, and embraced and extended by Edward Thorndike, Clark L. Hull, Edward C. Tolman, and later B.F. Skinner. Theories of learning emphasized the ways in which people might be predisposed, or conditioned, by their environments to behave in certain ways. Classical conditioning was an early behaviorist model. It posited that behavioral tendencies are determined by immediate associations between various environmental stimuli and the degree of pleasure or pain that follows. Behavioral patterns, then, were understood to consist of organisms conditioned responses to the stimuli in their environment. The stimuli were held to exert influence in proportion to their prior repetition or to the previous intensity of their associated pain or pleasure. Much research consisted of laboratory-based animal experimentation, which was increasing in popularity as physiology grew more sophisticated.

Skinner’s behaviorism shared with its predecessors a philosophical inclination toward positivism and determinism. He believed that the contents of the mind were not open to scientific scrutiny and that scientific psychology should emphasize the study of observable behavior. He
focused on behavior–environment relations and analyzed overt and covert (i.e., private) behavior as a function of the organism interacting with its environment.[24] Behaviorists usually rejected or deemphasized dualistic explanations such as «mind» or «consciousness»; and, in lieu of probing an «unconscious mind» that underlies unawareness, they spoke of the «contingency-shaped behaviors» in which unawareness becomes outwardly manifest.[23]

Among the behaviorists’ most famous creations are John B. Watson’s Little Albert experiment, which applied classical conditioning to the developing human child, and Skinner’s notion of operant conditioning, which acknowledged that human agency could affect patterns and cycles of environmental stimuli and behavioral responses.

Linguist Noam Chomsky’s critique of the behaviorist model of language acquisition is widely regarded as a key factor in the decline of behaviorism’s prominence.[25] Martin Seligman and colleagues discovered that the conditioning of dogs led to outcomes («learned helplessness») that opposed the predictions of behaviorism.[26][27] But Skinner’s behaviorism did not die, perhaps in part because it generated successful practical applications.[25] The fall of behaviorism as an overarching model in psychology, however, gave way to a new dominant paradigm: cognitive approaches.[28]

Humanism

Main article: Humanistic psychology

Psychologist Abraham Maslow in 1943 posited that humans have a hierarchy of needs, and it makes sense to fulfill the basic needs first (food, water etc.) before higher-order needs can be met.[29] Humanistic psychology was developed in the 1950s in reaction to both behaviorism and psychoanalysis.[citation needed] By using phenomenology, intersubjectivity and first-person categories, the humanistic approach sought to glimpse the whole person—not just the fragmented parts of the personality or cognitive functioning.[30] Humanism focused on fundamentally and uniquely human issues, such as individual free will, personal growth, self-actualization, self-identity, death, aloneness, freedom, and meaning. The humanistic approach was distinguished by its emphasis on subjective meaning, rejection of determinism, and concern for positive growth rather than pathology.[citation needed] Some of the founders of the humanistic school of thought were American psychologists Abraham Maslow, who formulated a hierarchy of human needs, and Carl Rogers, who created and developed client-centered therapy. Later, positive psychology opened up humanistic themes to scientific modes of exploration.

Gestaltism

Gestalt Psychology literally means “shape” or “figure.” Gestalt Psychology refers to the theory that the brain functions as a whole, but different than its parts at times. That doesn’t seem to make a whole lot of sense, but examples of Gestaltism (as it is also known) are such
There are five laws of Gestalt psychology:

- Proximity
- Similarity
- Continuity
- Symmetry
- Pragnanz (German for “pregnant”)

Our minds fill in the missing information, such as a puzzle of connect-the-dots. That is the essential gist of gestaltism. “There are wholes, the behavior of which is not determined by that of their individual elements, but where the part-processes are themselves determined by the intrinsic nature of the whole. It is the hope of Gestalt theory to determine the nature of such wholes” - Max Wertheimer (1924).

Gestalt
Main article: Gestalt psychology

Wolfgang Kohler, Max Wertheimer and Kurt Koffka co-founded the school of Gestalt psychology. This approach is based upon the idea that individuals experience things as unified wholes. This approach to psychology began in Germany and Austria during the late 19th century in response to the molecular approach of structuralism. Rather than breaking down thoughts and behavior to their smallest element, the Gestalt position maintains that the whole of experience is important, and the whole is different than the sum of its parts.
Gestalt psychology should not be confused with the Gestalt therapy of Fritz Perls, which is only peripherally linked to Gestalt psychology.

**Existentialism**

*Main article: Existential therapy*

Influenced largely by the work of German philosopher Martin Heidegger and Danish philosopher Søren Kierkegaard, psychoanalytically-trained American psychologist Rollo May pioneered an existential branch of psychology, which included existential therapy, in the 1950s and 1960s. Existential psychologists differed from others often classified as humanistic in their comparatively neutral view of human nature and in their relatively positive assessment of anxiety. Existential psychologists emphasized the humanistic themes of death, free will, and meaning, suggesting that meaning can be shaped by myths, or narrative patterns, and that it can be encouraged by an acceptance of the free will requisite to an authentic, albeit often anxious, regard for death and other future prospects. Austrian existential psychiatrist and Holocaust survivor Viktor Frankl drew evidence of meaning's therapeutic power from reflections garnered from his own internment, and he created a variety of existential psychotherapy called logotherapy. In addition to May and Frankl, Swiss psychoanalyst Ludwig Binswanger and American psychologist George Kelly may be said to belong to the existential school.

**Cognitivism**

*Main articles: Cognitivism (psychology) and Cognitive psychology*

Cognitive psychology is the branch of psychology that studies mental processes including how people think, perceive, remember, and learn. As part of the larger field of cognitive science, this branch of psychology is related to other disciplines including neuroscience, philosophy, and linguistics.

Noam Chomsky helped to ignite a “cognitive revolution” in psychology when he criticized the behaviorists’ notions of “stimulus,” “response,” and “reinforcement,” arguing that such ideas—which Skinner had borrowed from animal experiments in the laboratory—could be applied to...
complex human behavior, most notably language acquisition, in only a vague and superficial manner. The postulation that humans are born with the instinct or “innate facility” for acquiring language posed a challenge to the behaviorist position that all behavior (including language) is contingent upon learning and reinforcement. Social learning theorists, such as Albert Bandura, argued that the child’s environment could make contributions of its own to the behaviors of an observant subject.

The Müller-Lyer illusion. Psychologists make inferences about mental processes from shared phenomena such as optical illusions.

Meanwhile, accumulating technology helped to renew interest and belief in the mental states and representations—i.e., the cognition—that had fallen out of favor with behaviorists. English neuroscientist Charles Sherrington and Canadian psychologist Donald O. Hebb used experimental methods to link psychological phenomena with the structure and function of the brain. With the rise of computer science and artificial intelligence, analogies were drawn between the processing of information by humans and information processing by machines. Research in cognition had proven practical since World War II, when it aided in the understanding of weapons operation. By the late 20th century, though, cognitivism had become the dominant paradigm of mainstream psychology, and cognitive psychology emerged as a popular branch.

Assuming both that the covert mind should be studied and that the scientific method should be used to study it, cognitive psychologists set such concepts as “subliminal processing” and “implicit memory” in place of the psychoanalytic “unconscious mind” or the behavioristic “contingency-shaped behaviors.” Elements of behaviorism and cognitive psychology were synthesized to form the basis of cognitive behavioral therapy, a form of psychotherapy modified from techniques developed by American psychologist Albert Ellis and American psychiatrist Aaron T. Beck. Cognitive psychology was subsumed along with other disciplines, such as philosophy of mind, computer science, and neuroscience, under the umbrella discipline of cognitive science.
Biopsychosocial model

The biopsychosocial model is an integrated perspective toward understanding consciousness, behavior, and social interaction. It assumes that any given behavior or mental process affects and is affected by dynamically interrelated biological, psychological, and social factors. The psychological aspect refers to the role that cognition and emotions play in any given psychological phenomenon—for example, the effect of mood or beliefs and expectations on an individual's reactions to an event. The biological aspect refers to the role of biological factors in psychological phenomena—for example, the effect of the prenatal environment on brain development and cognitive abilities, or the influence of genes on individual dispositions. The socio-cultural aspect refers to the role that social and cultural environments play in a given psychological phenomenon—for example, the role of parental or peer influence in the behaviors or characteristics of an individual.

A real psychological “love triangle”

Personal relationships are an important part of everyday social life in both the short term and the long term. Humans naturally desire to socialize with each other but having a successful relationship is not something that occurs without significant effort from both parties. However, even with effort, the mental and social development a person experiences throughout their lifespan as well as their social age will have an influence upon the success or failure of a relationship.
**Subfields**

Main article: Subfields of psychology

Further information: List of psychology topics and List of psychology disciplines

Psychology encompasses a vast domain, and includes many different approaches to the study of mental processes and behavior.

**Biological**

Main articles: Biological psychology, Neuropsychology, Physiological psychology, and Cognitive neuroscience

MRI depicting the human brain. The arrow indicates the position of the hypothalamus.

Biological psychology or behavioral neuroscience is the study of the biological substrates of behavior and mental processes. There are different specialties within behavioral neuroscience. For example, physiological psychologists use animal models (typically rats) to study the neural, genetic, and cellular mechanisms that underlie specific behaviors such as learning and memory and fear responses. Cognitive neuroscientists investigate the neural correlates of psychological processes in humans using neural imaging tools, and neuropsychologists conduct psychological assessments to determine, for instance, specific aspects and extent of cognitive deficit caused by brain damage or disease.

**Clinical**

Main articles: Clinical psychology and Counseling psychology

Clinical psychologists work with individuals, children, families, couples, or small groups.

Clinical psychology includes the study and application of psychology for the purpose of understanding, preventing, and relieving psychologically-based distress or dysfunction and to promote subjective well-being and personal development. Central to its practice are psychological assessment and psychotherapy, although clinical psychologists may also engage in research, teaching, consultation, forensic testimony, and program development and administration. Some clinical psychologists may focus on the clinical management of patients with brain injury—this area is known as clinical neuropsychology. In many countries, clinical psychology is a regulated mental health profession.

The work performed by clinical psychologists tends to be influenced by various therapeutic approaches, all of which involve a formal relationship between professional and client (usually an individual, couple, family, or small group). The various therapeutic approaches and practices are associated with different theoretical perspectives and employ different procedures intended to form a therapeutic alliance, explore the nature of psychological problems, and encourage new ways of thinking, feeling, or behaving. Four major theoretical perspectives are psychodynamic, cognitive behavioral, existential-humanistic, and systems or family therapy. There has been a growing movement to integrate the various therapeutic approaches, especially with an increased understanding of issues regarding culture, gender, spirituality, and sexual-orientation. With the advent of more robust research findings regarding psychotherapy, there is evidence that most of the major therapies are about of equal effectiveness, with the key common element being a strong therapeutic alliance.

**Cognitive**

Main article: Cognitive psychology

Cognitive psychology studies cognition, the mental processes underlying mental activity. Perception, learning, problem solving, reasoning, thinking, memory, attention, language and emotion are areas of research. Classical cognitive psychology is associated with a school of thought known as cognitivism, whose adherents argue for an information processing model of mental function, informed by functionalism and experimental psychology.

The Stroop effect refers to the fact that naming the color of the first set of words is easier and quicker than the second.

Cognitive psychology studies cognition, the mental processes underlying mental activity. Perception, learning, problem solving, reasoning, thinking, memory, attention, language and emotion are areas of research. Classical cognitive psychology is associated with a school of thought known as cognitivism, whose adherents argue for an information processing model of mental function, informed by functionalism and experimental psychology.

On a broader level, cognitive science is an interdisciplinary enterprise of cognitive psychologists, cognitive neuroscientists, researchers in artificial intelligence, linguists, human–computer interaction, computational neuroscience, logicians and social scientists. Computational models are sometimes used to simulate phenomena of interest. Computational models provide a tool
Psychology for studying the functional organization of the mind whereas neuroscience provides measures of brain activity.

Comparative

The common chimpanzee can use tools. This chimpanzee is using a stick in order to get food.

Main article: Comparative psychology

Comparative psychology refers to the study of the behavior and mental life of animals other than human beings. It is related to disciplines outside of psychology that study animal behavior such as ethology. Although the field of psychology is primarily concerned with humans the behavior and mental processes of animals is also an important part of psychological research. This being either as a subject in its own right (e.g., animal cognition and ethology) or with strong emphasis about evolutionary links, and somewhat more controversially, as a way of gaining an insight into human psychology. This is achieved by means of comparison or via animal models of emotional and behavior systems as seen in neuroscience of psychology (e.g., affective neuroscience and social neuroscience).

Developmental

A baby with a book.

Main article: Developmental psychology

Mainly focusing on the development of the human mind through the life span, developmental psychology seeks to understand how people come to perceive, understand, and act within the world and how these processes change as they age. This may focus on intellectual, cognitive, neural, social, or moral development. Researchers who study children use a number of unique research methods to make observations in natural settings or to engage them in experimental tasks. Such tasks often resemble specially designed games and activities that are both enjoyable for the child and scientifically useful, and researchers have even devised clever methods to...
study the mental processes of small infants. In addition to studying children, developmental psychologists also study aging and processes throughout the life span, especially at other times of rapid change (such as adolescence and old age). Developmental psychologists draw on the full range of psychological theories to inform their research.

**Educational and school**

Choose the figure that completes the series.

a  b  c  d  e  ?

An example of an item from a cognitive abilities test used in educational psychology.

*Main articles: Educational psychology and School psychology*

Educational psychology is the study of how humans learn in educational settings, the effectiveness of educational interventions, the psychology of teaching, and the social psychology of schools as organizations. The work of child psychologists such as Lev Vygotsky, Jean Piaget, Bernard Luskin and Jerome Bruner has been influential in creating teaching methods and educational practices. Educational psychology is often included in teacher education programs, in places such as North America, Australia, and New Zealand.

School psychology combines principles from educational psychology and clinical psychology to understand and treat students with learning disabilities; to foster the intellectual growth of “gifted” students; to facilitate prosocial behaviors in adolescents; and otherwise to promote safe, supportive, and effective learning environments. School psychologists are trained in educational and behavioral assessment, intervention, prevention, and consultation, and many have extensive training in research.[48]

**Evolutionary**

*Main article: Evolutionary psychology*

Evolutionary psychology examines psychological traits — such as memory, perception, or language — from a modern evolutionary perspective. It seeks to identify which human psychological traits are evolved adaptations, that is, the functional products of natural selection or sexual selection. Evolutionary psychologists suggest that psychological adaptations that evolved to solve recurrent problems in human ancestral environments. By focusing on the evolution of psychological traits and their adaptive functions, it offers complementary explanations for the mostly proximate or developmental explanations developed by other areas of psychology (that is, it focuses mostly on ultimate or “why?” questions, rather than proximate or “how?” questions).

**Industrial–organizational**

*Main article: Industrial and organizational psychology*

Industrial and organizational psychology (I–O) applies psychological concepts and methods to optimize human potential in the workplace. Personnel psychology, a subfield of I–O psychology, applies the methods and principles of psychology in selecting and evaluating workers. I–O psychology's other subfield, organizational psychology, examines the effects of work environments and management styles on worker motivation, job satisfaction, and productivity.[49]

**Personality**

*Main article: Personality psychology*

Personality psychology is concerned with enduring patterns of behavior, thought, and emotion in individuals, commonly referred to as personality. Theories of personality vary across different psychological schools and orientations. They carry different assumptions about such issues as the role of the unconscious and the importance of childhood experience. According to Freud, personality is based on the dynamic interactions of the id, ego, and super-ego.[50] Trait theorists, in contrast, attempt to analyze personality in terms of a discrete number of key traits by the statistical method of factor analysis. The number of proposed traits has varied widely. An early model proposed by Hans Eysenck suggested that there are three traits that comprise human personality: extraversion–introversion, neuroticism, and psychoticism. Raymond Cattell proposed a theory of 16 personality factors. The “Big Five,” or Five Factor Model, proposed by Lewis Goldberg, currently has strong support among trait theorists.

**Social**

Social psychology studies the nature and causes of social behavior.

*Main article: Social psychology (psychology)*

See also: Social psychology and Social psychology (sociology)

Social psychology is the study of how humans think about each other and how they relate to each other. Social psychologists study such topics as the influence of others on an individual’s behavior (e.g. conformity, persuasion), and the formation of beliefs, attitudes, and stereotypes about other people. Social cognition fuses elements of social and cognitive psychology in order to understand how people process, remember, and distort social information. The study of group dynamics reveals information about the nature and potential optimization of leadership, communication, and other phenomena that emerge at least at the microsocial level. In recent years, many social
Psychologists have become increasingly interested in implicit measures, mediational models, and the interaction of both person and social variables in accounting for behavior.

**Professional Psychology**

Professional psychology is a broad term referring to the application of principles of the above areas of psychology in clinical, educational, organizational, and other settings. It is closely related to applied psychology. People involved in the practice of professional psychology hold doctoral degrees (Psy.D., Ph.D., or Ed.D.). The degree is usually in the area of clinical, counseling, or school psychology. Professional Psychologists are typically licensed to provide the above services in one or more states. Professional psychologists often provide personality, intelligence, aptitude, or neuropsychological assessment. They may also conduct individual, family, marital, and group therapy. While many may diagnose psychological problems, others focus on optimizing people’s potential in an area. For instance, executive coaching, organizational consultation, and sports psychology are focused on the further enhancement skills. Psychologists’ roles also include consultation, management, supervision, and education. Psychologists in many states are working to attain prescription privileges. The American Psychological Association has a journal that focuses on this area, entitled Professional Psychology: Research and Practice.[51]

**Positive Psychology**

Positive psychology derives from Maslow’s humanistic psychology. Positive psychology is a discipline that utilizes evidence-based scientific methods to study factors that contribute to human happiness and strength. Different from clinical psychology, positive psychology is concerned with improving the mental well-being of healthy clients. Positive psychological interventions now have received tentative support for their beneficial effects on clients. In 2010 Clinical Psychological Review published a special issue devoted to positive psychological interventions, such as gratitude journaling and the physical expression of gratitude. There is, however, a need for further research on the effects of interventions. Positive psychological interventions have been limited in scope but their effects are thought to be superior to that of placebos, especially with regard to helping people with body image problems.

**Research methods**

Psychology tends to be eclectic, drawing on knowledge from other fields to help explain and understand psychological phenomena. Additionally, psychologists make extensive use of the three modes of inference that were identified by C. S. Peirce: deduction, induction, and abduction (hypothesis generation). While often employing deductive–nomological reasoning, they also rely on inductive reasoning to generate explanations. For example, evolutionary psychologists attempt to explain psychological traits—such as memory, perception, or language—as adaptations, that is, as the functional products of natural selection or sexual selection. Psychologists may conduct basic research aiming for further understanding in a particular area of interest or conduct applied research to solve problems in the clinic, workplace or other areas. Masters level clinical programs aim to train students in both research methods and evidence-based practice. Professional associations have established guidelines for ethics, training, research methodology and professional practice. In addition, depending on the country, state or region, psychological services and the title “psychologist” may be governed by statute and psychologists who offer services to the public are usually required to be licensed.

**Qualitative and quantitative research**

Research in most areas of psychology is conducted in accord with the standards of the scientific method. Psychological researchers seek the emergence of theoretically interesting categories and hypotheses from data, using qualitative or quantitative methods (or both). Qualitative psychological research methods include interviews, first-hand observation, and participant observation. Qualitative researchers sometimes aim to enrich interpretations or critiques of symbols, subjective experiences, or social structures. Similar hermeneutic and critical aims have also been served by "quantitative methods," as in Erich Fromm’s study of Nazi voting[citation needed] or Stanley Milgram’s studies of obedience to authority.

Quantitative psychological research lends itself to the statistical testing of hypotheses. Quantitatively oriented research designs include the experiment, quasi-experiment, cross-sectional study, case-control study, and longitudinal study. The measurement and operationalization of important constructs is an essential part of these research designs. Statistical methods include the Pearson product–moment correlation coefficient, the analysis of variance, multiple linear regression, logistic regression, structural equation modeling, and hierarchical linear modeling.

**Controlled experiments**

Main article: Experiment

Flowchart of four phases (enrollment, intervention allocation, follow-up, and data analysis) of a parallel randomized trial of two groups, modified from the CONSORT 2010 Statement[53]

Experimental psychological research is conducted in a laboratory under controlled conditions. This method of research relies on the application of the scientific method to understand behavior. Experimenters use several types of measurements, including rate of response, reaction time, and various psychometric measurements. Experiments are designed to test specific hypotheses (deductive approach) or evaluate functional relationships (inductive approach). A true experiment with random allocation of subjects to conditions allows researchers to infer causal relationships.
between different aspects of behavior and the environment. In an experiment, one or more variables of interest are controlled by the experimenter (independent variable) and another variable is measured in response to different conditions (dependent variable). Experiments are one of the primary research methods in many areas of psychology, particularly cognitive/psychonomics, mathematical psychology, psychophysiology and biological psychology/cognitive neuroscience.

Experiments on humans have been put under some controls, namely informed and voluntary consent. After World War II, the Nuremberg Code was established, because of Nazi abuses of experimental subjects. Later, most countries (and scientific journals) adopted the Declaration of Helsinki. In the U.S., the National Institutes of Health established the Institutional Review Board in 1966, and in 1974 adopted the National Research Act (HR 7724). All of these measures encouraged researchers to obtain informed consent from human participants in experimental studies. A number of influential studies led to the establishment of this rule; such studies included the MIT and Fernald School radioisotope studies, the Thalidomide tragedy, the Willowbrook hepatitis study, and Stanley Milgram's studies of obedience to authority.

**Survey questionnaires**

Main article: Statistical survey

Statistical surveys are used in psychology for measuring attitudes and traits, monitoring changes in mood, checking the validity of experimental manipulations, and for a wide variety of other psychological topics. Most commonly, psychologists use paper-and-pencil surveys. However, surveys are also conducted over the phone or through e-mail. Increasingly, web-based surveys are being used in research. Similar methodology is also used in applied setting, such as clinical assessment and personnel assessment.

**Longitudinal studies**

Longitudinal studies are often used in psychology to study developmental trends across the life span, and in sociology to study life events throughout lifetimes or generations. The reason for this is that unlike cross-sectional studies, longitudinal studies track the same people, and therefore the differences observed in those people are less likely to be the result of cultural differences across generations. Because of this benefit, longitudinal studies make observing changes more accurate and they are applied in various other fields.

Because most longitudinal studies are observational, in the sense that they observe the state of the world without manipulating it, it has been argued that they may have less power to detect causal relationships than do experiments. They also suffer methodological limitations such as from selective attrition because people with similar characteristics maybe more likely to drop out of the study making it difficult to analyze.

Some longitudinal studies are experiments, called repeated-measures experiments. Psychologists often use the crossover design to reduce the influence of confounding covariates and to reduce the number of subjects.

**Observation in natural settings**

Phineas P. Gage survived an accident in which a large iron rod was driven completely through his head, destroying much of his brain's left frontal lobe, and is remembered for that injury's reported effects on his personality and behavior.[54]

Main article: Naturalistic observation

In the same way Jane Goodall studied the role of chimpanzee social and family life, psychologists conduct similar observational studies in human social, professional and family lives. Sometimes the participants are aware they are being observed and other times it is covert: the participants do not know they are being observed. Ethical guidelines need to be taken into consideration when covert observation is being carried out.

**Qualitative and descriptive research**

Artificial neural network with two layers, an interconnected group of nodes, akin to the vast network of neurons in the human brain.

Main article: Qualitative research

Research designed to answer questions about the current state of affairs such as the thoughts, feelings and behaviors of individuals is known as descriptive research. Descriptive research can be qualitative or quantitative in orientation. Qualitative research is descriptive research that is focused on observing and describing events as they occur, with the goal of capturing all of the richness of everyday behavior and with the hope of discovering and understanding phenomena that might have been missed if only more cursory examinations have been made.
Neuropsychological methods

A rat undergoing a Morris water navigation test used in behavioral neuroscience to study the role of the hippocampus in spatial learning and memory.

Main article: Neuropsychology

Neuropsychology seeks to connect aspects of behavior and mental activity with the structure and function of the brain. Cognitive neuropsychology and cognitive neuropsychiatry study neurological or mental impairment in an attempt to infer theories of normal mind and brain function. This typically involves looking for differences in patterns of remaining ability (known as «functional disassociations») which can give clues as to whether abilities are composed of smaller functions, or are controlled by a single cognitive mechanism.

In addition, experimental techniques are often used to study the neuropsychology of healthy individuals. These include behavioral experiments, brain-scanning or functional neuroimaging, used to examine the activity of the brain during task performance, and techniques such as transcranial magnetic stimulation, which can safely alter the function of small brain areas to reveal their importance in mental operations.

Computational modeling

The experimenter (E) orders the teacher (T), the subject of the experiment, to give what the latter believes are painful electric shocks to a learner (L), who is actually an actor and confederate. The subject believes that for each wrong answer, the learner was receiving actual electric shocks, though in reality there were no such punishments. Being separated from the subject, the
confederate set up a tape recorder integrated with the electro-shock generator, which played pre-recorded sounds for each shock level etc.[55]

Computational modeling[56] is a tool often used in mathematical psychology and cognitive psychology to simulate a particular behavior using a computer. This method has several advantages. Since modern computers process extremely quickly, many simulations can be run in a short time, allowing for a great deal of statistical power. Modeling also allows psychologists to visualize hypotheses about the functional organization of mental events that couldn’t be directly observed in a human.

Several different types of modeling are used to study behavior. Connectionism uses neural networks to simulate the brain. Another method is symbolic modeling, which represents many different mental objects using variables and rules. Other types of modeling include dynamic systems and stochastic modeling.

Animal studies

Animal learning experiments aid in investigating the biological basis of teaching, memory and behavior. In the 1890s, Russian physiologist Ivan Pavlov famously used dogs to demonstrate classical conditioning. Non-human primates, cats, dogs, pigeons, rats and other rodents are often used in psychological experiments. Ideally, controlled experiments introduce only one independent variable at a time, in order to ascertain its unique effects upon dependent variables. These conditions are approximated best in laboratory settings. In contrast, human environments and genetic backgrounds vary so widely, and depend upon so many factors, that it is difficult to control important variables for human subjects. Of course, there are pitfalls in generalizing findings from animal studies to humans although animal models can be helpful in developing an understanding of human behavior (e.g., addiction research).[57]

Criticism

Theory

Criticisms of psychological research often come from perceptions that it is a “soft” science. Philosopher of science Thomas Kuhn’s 1962 critique[58] implied psychology overall was in a pre-paradigm state, lacking the agreement on overarching theory found in mature sciences such as chemistry and physics.

Because some areas of psychology rely on research methods such as surveys and questionnaires, critics have asserted that psychology is not an objective science. Other phenomena that psychologists are interested in, such as personality, thinking, and emotion, cannot be directly measured[59] and are often inferred from subjective self-reports, which may be problematic.[60] [61]

Misuses of hypothesis-testing in psychology, and the use of hypothesis testing at all is controversial. Research[which?] has documented that many psychologists confuse statistical significance with practical importance. Statistically significant but practically unimportant results are common with large samples.[62] Some psychologists have responded with an increased use of effect size statistics, rather than sole reliance on the Fisherian p < .05 significance criterion (whereby an observed difference is deemed “statistically significant” if an effect of that size or larger would occur with 5% (or less) probability in independent replications, assuming the truth of the null-hypothesis of no difference between the treatments).[citation needed]

Sometimes the debate comes from within psychology, for example between laboratory-oriented researchers and practitioners such as clinicians. In recent years, and particularly in the U.S., there has been increasing debate about the nature of therapeutic effectiveness and about the relevance of empirically examining psychotherapeutic strategies.[63]

Practice

Some observers perceive a gap between scientific theory and its application—in particular, the application of unsupported or unsound clinical practices.[64] Critics say there has been an increase in the number of mental health training programs that do not instill scientific competence.[65] One skeptic asserts that practices, such as «facilitated communication for infantile autism»; memory-recovery techniques including body work; and other therapies, such as rebirthing and reparenting, may be dubious or even dangerous, despite their popularity.[66] In 1984, Allen Neuringer had made a similar point[vague] regarding the experimental analysis of behavior.[67]

Current ethical standards of psychology would not permit the following studies to be conducted today. These human studies would violate the Ethics Code of the American Psychological Association, the Canadian Code of Conduct for Research Involving Humans, and the Belmont Report. Current ethical guidelines state that using non-human animals for scientific purposes is only acceptable when the harm (physical or psychological) done to animals is outweighed by the benefits of the research.[68] Keeping this in mind, psychologists can use on animals research techniques that would not necessarily be performed on humans.

• An experiment by Stanley Milgram raised questions about the ethics of scientific experimentation because of the extreme emotional stress suffered by the participants. It measured the willingness of study participants to obey an authority figure who instructed them to perform acts that conflicted with their personal conscience.[69]

• Harry Harlow drew condemnation for his «pit of despair» experiments on rhesus macaque monkeys at the University of Wisconsin–Madison in the 1970s.[70] The aim of the research was to produce an animal model of clinical depression. Harlow also devised what he called a “rape rack,” to which the female isolates were tied in normal monkey mating posture.[71] In 1974, American literary critic Wayne C. Booth wrote that, «Harry Harlow and his colleagues go on torturing their nonhuman primates decade after decade, invariably proving what we all knew in advance—that social creatures can be destroyed by destroying their social ties.» He writes that Harlow made no mention of the criticism of the morality of his work.[72]

University psychology departments have ethics committees dedicated to the rights and well-being of research subjects. Researchers in psychology must gain approval of their research projects before conducting any experiment to protect the interests of human participants and laboratory animals.[73]

Systemic bias

In 1959 statistician Theodore Sterling examined the results of psychological studies and discovered that 97% of them supported their initial hypotheses, implying a possible publication bias.[74]
Similarly Fanelli (2010) found out that 91.5% of psychiatry/psychology studies confirmed the effects they were looking for, which was around 5 times more often than in space-or geosciences. Fanelli argues that this is because of researchers in “softer” sciences have fewer constraints to their conscious and unconscious biases.

In November 2010, New Scientist Magazine reported a systemic bias in psychology studies towards WEIRD («western, educated, industrialized, rich and democratic») subjects. Although only 1/8 people worldwide fall into the WEIRD classification, New Scientist claimed that 60%-90% of psychology studies are performed on WEIRD subjects. The article gave examples of results that differ significantly between WEIRD subjects and tribal cultures, including the Müller-Lyer illusion.

Notes
• Although psychoanalysis and other forms of depth psychology are most typically associated with the unconscious mind, behaviorists consider such phenomena as classical conditioning and operant conditioning, while cognitivists explore implicit memory, automaticity, and subliminal messages, all of which are understood either to bypass or to occur outside of conscious effort or attention. Indeed, cognitive-behavioral therapists counsel their clients to become aware of maladaptive thought patterns, the nature of which the clients previously had not been conscious.
• Among these schools are ego psychology, object relations, and interpersonal, Lacanian, and relational psychoanalysis. Modification of Jung’s theories led to the archetypal and process-oriented schools.
• For example, scientists have related brain structures to Freudian concepts such as libido, drives, the unconscious, and repression. The contributors to neuro-psychoanalysis include António Damásio, Eric Kandel, Joseph E. LeDoux, Jaak Panksepp, Oliver Sacks, Mark Solms, and Douglas Watt.
• Gregg Henriques of James Madison University, for example, published his Tree of Knowledge System in 2003 as a proposal for the theoretical unification of psychology. For a general discussion and critique, see also Mark Jarzombek’s book, The Psychologizing of Modernity.

The Most Revealing Psych Experiments
Psychology is the study of the human mind and mental processes in relation to human behaviors - human nature. Due to its subject matter, psychology is not considered a ‘hard’ science, even though psychologists do experiment and publish their findings in respected journals. Some of the experiments psychologists have conducted over the years reveal things about the way we humans think and behave that we might not want to embrace, but which can at least help keep us humble. That’s something.

1. ‘Lord of the Flies’: Social Identity Theory

The Robbers Cave Experiment is a classic social psychology experiment conducted with two groups of 11-year old boys at a state park in Oklahoma, and demonstrates just how easily an exclusive group identity is adopted and how quickly the group can degenerate into prejudice and antagonism toward outsiders.

Researcher Muzafer Sherif actually conducted a series of 3 experiments. In the first, the groups banded together to gang up on a common enemy. In the second, the groups banded together to gang up on the researchers! By the third and final experiment, the researchers managed to turn the groups on each other.
2. The Stanford Prison Experiment: Power Corrupts

This infamous experiment to plumb the depths of evil in human hearts ended up affecting its lead researcher as much as its subjects. Psychologist Philip Zimbardo divided his participants into two groups labeled “prisoners” and “guards.” It was conducted in a mock-up prison in a Stanford University basement. The prisoners were subjected to arrest, strip search, de-lousing, head shaving and other abuses. The guards were given clubs.

The prisoners rebelled on the second day, and the reaction of the guards was swift and brutal. Before long, the prisoners were behaving meekly and with blind obedience, while the guards fully embraced their roles by taunting and abusing their charges. This one might be scientific confirmation of the idea that humans harbor evil tendencies. The planned 14-day experiment was halted after only 6 days due to increasing levels of abuse.
3. Obedience to Authority Milgram’s exp: Human Capacity for Cruelty

In 1963 psychologist Stanley Milgram set out to test people's propensity to obey authority when ordered to hurt another person. The world was still wondering what happened in Germany during WW-2 that caused so much horror. Milgram’s subjects were told they were to be the ‘teachers’ of a ‘learner’ (who was secretly in on the experiment). They were to deliver electric shocks to the ‘learner’ if he or she got an answer wrong. Worse, they were told to increase the shock if the ‘learner’ continued to get the answers wrong.

Despite the screams and moans of pain from the unseen ‘learner’, the subjects continued to deliver ever more severe shocks if ordered to do so by the experimenter in the lab coat. They continued even when told they had rendered the ‘learner’ unconscious! The conclusion? Looks like we humans are quite easily able to set aside moral and ethical considerations when ordered by authority to violate them.

The SCIO Universal Electrophysiological Biofeedback System can safely measure over the skin (transcutaneous) skin electrode-potential down to the micro-volt range. Virtual and mathematical calculations of the attained data can provide CNS (Central Nervous System) biofeedback data, so as to include simple EEG (electroencephalography), 3-pole ECG (simple stress electrocardiography), global transcutaneous EMG (electromyography).

The system can measure the transcutaneous skin resistance by application of a medical safe micro-current voltametric pulse, so as to measure GSR (galvanic skin response) and TVEP (transcutaneous voltammetric evoked potential).

The system is designed for the detection of stress and reduction of stress through CNS biofeedback data or stress lifestyle questionnaires. The stress and lifestyle questionnaires provide educational feedback through library referenced functions. And the device can be used for the treatment of muscular re-education from injury, muscle weakness, sport muscular enhancement or various dystonia. The applied voltammetric pulse can be used to detect and affect any established modalities such as pain (TENS [transcutaneous electro neural stimulation]), trauma/wound healing, charge stability imbalance, redox potential and electrophysiological reactivity.

The device after 20 years of use is quality tested, clinically evaluated and scientifically validated as safe and effective.
4. Conformity: Not Believing Your Lying Eyes

From social identity theory psychologists got a handle on group dynamics and prejudices, how natural it is for groups to elicit conformity among their members. In 1951 Solomon Asch set out to identify just how much individual judgment is affected by the group.

In a test environment in which undergrads were asked to render a judgment after other subjects gave deliberately wrong answers, 50% of people gave the same wrong answer when their turn came. Only 25% of test subjects refused to be swayed by the false judgment of the others, while 5% always went with the crowd. The finding was that a third of people will ignore what they know to be true and go with a falsehood if they’re in a group that insists on the falsehood being true. What else will people do under influence of the group?

5. Lying to Ourselves: Cognitive Dissonance

One might begin to suspect that people must be pretty good at either ignoring their own feelings, beliefs and desires, or flat out lying to themselves (and getting away with it). In a classic 1959 experiment psychologists designed an experiment with level upon level of deceit to see just how much a person will ignore their own experience, even to the point of helping to convince someone else of something they know is not true.

The human capacity for sustaining cognitive dissonance has since been confirmed in many other well-designed experiments. This capacity is linked closely with our desire to join and fit in with a group, adjusting our own values and beliefs about things to align with those of others. Perhaps, knowing about these propensities, we can learn to avoid believing our own lies too much.
6. Memory Manipulation: Do You Really Know What You Saw?

In 1974 researchers designed an experiment to test the reliability of memory, and whether it could be manipulated after the fact. 45 people watched a film of a car accident. Nine of those people were then asked to estimate how fast the cars were going when they “hit.” Four other groups were asked an almost identical question, but the word “hit” was replaced with the words “smashed,” “collided,” “bumped” and “contacted.”

Those whose questions included the word “smashed” estimated the cars were going 10 mph faster than those whose word was “contacted.” A week later participants were asked about broken glass (indicative of more serious accident), and those whose trigger words were more forceful said they remembered broken glass even though the film had depicted none. Looks like something so subtle as a single descriptive word can manipulate memories of an event!
Psychologist George Miller wrote in 1956 that he was “persecuted” by the number 7, which kept intruding on his mind while contemplating data or reading journals. Sometimes it was slightly higher, sometimes slightly lower, but always it hovered around 7. Miller theorized that this ‘magic’ number represents the number of items we are able to hold in our short term memory at any given time. Plus or minus 2.

More recent studies have demonstrated that people are able to ‘group’ items in short term memory - thereby being able to hold more individual items - yet even there the total if groupings are considered units, the number comes out to 7. Plus or minus 2. Maybe this is why human cultural belief systems historically considered the number 7 to be especially important to the gods!

Orson Wells broadcast an adaptation of H.G. Wells’ War of the Worlds on radio in 1938, causing panic in nearly 3 million of the 6 million people who listened to the broadcast. Princeton psychologists later interviewed 135 New Jersey residents about their reactions to the broadcast. A surprising number of frightened people never bothered to check out the validity of the broadcast, and some highly educated individuals believed it was true just because it was on the radio and thus «authoritative.» We like to think we’re more sophisticated today and wouldn’t fall for such an obvious dramatization, but don’t be too sure, Media manipulation of our emotions and desires is a regular art form these days. Just ask Madison Avenue!

9. The Bargaining Table: Threats Don’t Work

Luckily, the behavior of individuals is both less deceptive and less violent than the behavioral ‘norms’ of groups. In the area of diplomacy among individuals and groups, people attempt to get concessions they want or need from others. Usually without having to give up too much in exchange. Researchers Morgan Deutsch and Robert Krauss tested two factors involved in the crafting of agreements between humans in 1962: communication and threats.

This complicated economic experiment found that cooperative relationships between the bargainers are more beneficial to both parties than threats, either unilateral or bilateral. Not exactly a rousing endorsement of capitalistic winner-take-all competition, but in view of the current economic situation perhaps the results of this experiment should be kept in mind as we craft a recovery!
10. Risky Behavior: Prospect Theory

Speaking of the economy, researchers Daniel Kahneman and Amos Tversky studied decision-making in risky situations and developed a theory about it that garnered a Nobel Prize and has been used to develop predictive economic models and influence marketing campaigns.

Turns out that it’s all about framing. People behaved differently depending on how the situation was presented. If considered in terms of losses, people were more likely to take risks. They were less likely to take a risk if the situation was presented in terms of what they stood to gain. This seems strangely opposite of what we tend to guess, so it’s something to bear in mind next time you’re trying to bluff at the poker table.
11. Behavioral theory says behaviors you reward (pay extra attention to) you get more of. Behaviors you ignore you get less of. Thus talk Psychology fails because it rewards bad behaviors.
12. The QXCI develops a way to interact with the body electric which is more pervasive than the limited verbal mind.
To Make Medicine Safer
the Angel has Made

The Quantum Quality Control
Electro-Chemistry Analyzer for the Analysis of the Trivector electrical
signature of a biological or anti-biological substance.

Everything is made up of atoms with mostly electrons and protons. Everything has an electrical field and an electrical interaction with its environment. This 3D interaction can be measured with Voltammetry.

We are taught chemistry with a poor rod and ball analogy. There are no Rods and no Balls, there are quantum energy fields. The Rods and Balls faulty analogy misleads us into a perception of how Synthetic Chemistry can assemble new molecules. The energy state of these molecules is different in nature than in the synthetic world. The Angel discovered this in 1982 and published the first book on Quantum Biology the Promorphous proving the incompatibility of the Synthetic Chemicals in Biology.

There are no Rods and no Balls!!!
Just energy fields

The Angel discovered that Quantum Electro Dynamics ability to describe the photon electron and proton interaction, means that the energy state of a natural made substance is different from the petrochemical SYNthetic Chemistry of the Drug Co.

Modern science has de-emphasized the energy states of the electrons in glue, and the OED connection largely because it refutes the idea of SYNthetic chemistry but the Angel noted the hypocrisy and has made a new medical help people. For this, the Drug Co. have attacked her.

Plants take in water, carbon dioxide, nutrients and phononic energy light. They give off organic material and oxygen.

Animals take in the organic material and oxygen. They give off fertilizes nutrients carbon dioxide and water and phononic energy body heat.

The Photosynthetic Organism can use the energy of sunlight to take electrons to higher energy states.

Figure J-13: Electrons Transport Chain

John Edward Brough Randles gave Desi inspiration and advice on the Voltammetric QQC

DNA is not a Rod and Ball model as shown, it is rather a complex mixture of energy fields and quantum electromagnetic static field.

Schrödinger said that DNA was a quantum system and no thermodynamic in nature.

Dr. Isaac and Heisenberg proved the concept in the 1980s.

The Angel put the proof together in 1982.
The Body Electric has many global important measures. These include Volts, Amps, Resistance, Hydration, Oxidation, and Proton and Electron pressure. There are oscillatory norms of these values as well. The electrical vital signs. These are all easily measured and easily corrected in a cybernetic biofeedback loop. By interfacing with the body electric this stimulus, response, correction and re-stimulation, we can try to normalize and stabilize the body electric. If we can reduce the causes of disease with behavioral medicine, provide good nutrition to supply needed homeostasis, repair the damage to organs, and unblock the blockages to energy flow, we have the start of a good truly modern medicine. Selvy has proved that by reducing stress and the stressors we can advert the early progression of disease, and dramatically reduce degenerative disease. But this is drugless and threatening to the profits of the drug companies. We need to prefer people over profit. We need to become aware of the science and look through the sensational tabloid press to make an informed choice.

The over emphasis on drugs (SINthentic drugs ) and surgery and the under emphasis on lifestyle has created a monster. The regulatory bodies, FDA, let Big Tobacco, Big Sugar, Big Pharma, run rampant while spending time and money on attacking safe, scientific, tested and effective natural medicines. This is a tragedy of modern times and profit corporations out of control.

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One person in twenty is a Psychopath
One person in twenty is a Hero who will Fight for What is Right
The rest of the Masses just get along by going along. They will follow a Psychopath or a Hero, they just want to go along
It is scientific fact that when a low level voltage and micro-current pulse is applied to the body osmosis, enzyme activity, and healing are increased. The SCIO will let the patient's body electric autofocus a harmonic pulse to maximize this effect. This current applied to the cranium has been shown to stimulate the learning process and increase memory retention, and learning. There is published research on these therapies. The new world of energetic medicine can help you to learn twice as much in half the time comfortably and easily.
Desiré is the Professor Emeritus of IMUNE. IMUNE is an accredited and legally registered medical university in Europe.

Since 1995 IMUNE has been offering medical education in a variety of subjects to defend and perpetuate Natural Medicine. There are many small minded people being driven by the SYNthetic chemical companies to destroy Natural Medicine as a viable choice in Medicine. IMUNE has offices in Switzerland, Mexico, Dubai, Budapest, England, and the British Virgin Islands. The small petty minded picayune minions of the chemical companies constantly attack with their anal retentive biased short sided views. We must fight for freedom of choice and especially freedom of choice on medicine.

Education...
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