**Behavioral Model of Psychopathology**

This model focuses only on the rewards and punishments in the environment as the major factors that shape and maintain behavior. The two core principles or processes of learning according to behaviorism are classical conditioning and operant conditioning. Later, behaviorists acknowledged that learning can occur through modeling and observational learning.

Here are a few pioneers of behavioral therapy.

* **Watson** performed the famous experiment (Watson and Rayner, 1920) with Little Albert teaching him to be afraid of rats by pairing a rat with a loud unpleasant sound (classical conditioning). This experiment demonstrated that phobias can be learned.
* **Mary Cover Jones**, who was Watson’s student, demonstrated in 1924 that phobias can be unlearned. Peter, a small boy, had a phobia of rabbits and Ms. Jones taught him not to be afraid of rabbits by pairing rabbits (sometimes aversive to Peter) with candy (sometimes pleasant to Peter); this is a counterconditioning paradigm.
* **Wolpe** extended the counterconditioning paradigm. He had adults imagine the object or situation of particular fear to them (sometimes aversive), while at the same time relaxing physically (something pleasant). This is technique of systematic desensitization, which is very much used by behavior modifiers.
* **Eysenck**, a famous English behaviorist, stressed that behavior is the result of psychological factors as well as the environment.  This is sometimes called the S- O- R model.
* **Skinner**, one of the most significant psychologists of the last half of the 20th century, emphasized the importance of operant conditioning, that behavior is function of its consequences.

**CLASSICAL CONDITIONING:**

This is a type of learning in which a neutral stimulus (such as an indecently dressed female) comes to bring about a response after it is paired with a stimulus (such as sexual aggression) that naturally brings about such negative response like fantasy, rape etc. In classical conditioning, discovered by Ivan Pavlov (1849 – 1946) while experimenting with dogs. Pavlov discovered that, events occurring closely together in time whether positive or negative will be generalized and create the same response for either event at a later time (Pavlov, 1927).

Classical conditioning is associated with terms such as:

* **Neutral Stimulus:** A Stimulus that, before conditioning, does not naturally bring about the response of interest.
* **Unconditioned Stimulus (UCS):** A stimulus that brings about a response without having been learned.
* **Unconditioned Response (UCR):** A response that is natural and needs no training (e.g. sexual arousal at the sight of a nude, pretty lady or cute young man).
* **Conditioned Stimulus (CS):** A once-neutral stimulus that has been paired with an unconditioned stimulus to bring about a response formerly caused only by the unconditioned stimulus.
* **Conditioned Response (CR):** A response that, after conditioning, follows a previously neutral stimulus (e.g. sexual interest due to the sweet smile from a passing pretty lady or young man).
* **Extinction:** The decrease in frequency response, and eventual disappearance, of a previously conditioned response; one of the basic phenomena of learning.
* **Spontaneous Recovery:** The reemergence of an extinguished conditioned response after a period of rest.
* **Stimulus Generalization:** A response to a stimulus that is similar to but different from a conditioned stimulus; the more similar the two stimuli, the more likely generalization is to occur.
* **Stimulus Discrimination:** The ability to differentiate between stimuli.

**An abnormal behavior** can be acquired by associating an environmental stimulus (e.g. a dog) with a biological response (e.g. pain and fear when bitten) so that every time a person that has been bitten by a dog subsequently sees a dog, they experience the fear they felt when they were bitten. In this case the person would develop a phobia of dogs.

Classical conditioning can be used to explain why heroin addicts sometimes have physiological responses similar to those they have when they take heroin if they simply see a syringe. They have developed a conditioned physiological response to syringe (which have become a conditioned stimulus) because of the frequent pairing of the syringe with the actual physiological action of the drugs.

        Similarly, classical conditioning helps explain why it is hard to overcome drug addiction due to the effect of spontaneous recovery. For example, cocaine addicts who are thought to be “cured” could experience an irresistible impulse to use the drug again if they are subsequently confronted by a stimulus with strong connections to the drug, such as a white powder.

**OPERANT CONDITIONING:**

This is the learning process in which a voluntary response is strengthened or weakened, depending on its favorable or unfavorable consequences. Unlike classical conditioning, in which the original behaviors are the natural, biological responses to the presence of some stimulus such a food, water, or pain, operant conditioning applies to voluntary responses, which an organism performs deliberately, to produce a desirable outcome. For example, operant conditioning is at play when we learn that being hard-working can bring about a raise or promotion in the place of work, or that studying hard results in good grades.

        As with classical conditioning, the basis for understanding operant conditioning was laid by work with animals. Edward L. Thorndike and B.F skinner are the two big names associated with the learning method of operant conditioning.

Operant conditioning is associated with terms such as:

* **Thorndike’s Law of Effect:** It states that responses that lead to satisfying consequences are more likely to repeated, and responses followed by negative outcomes are less likely to be repeated.
* **Reinforcement:** The process by which a stimulus increases the probability that a preceding behavior will be repeated.
* **Reinforcer:** Any stimulus that increases the probability that a preceding behavior will occur again. For example, bonuses, toys, and good grades can serve as reinforcers – if they strengthen the probability of the response that occurred before their introduction.
	+ **Positive Reinforcer:** A stimulus added to the environment that brings about an increase in a preceding response. If food, water, money, or praise is provided following a response, it is more likely that the response will occur again in the future.
	+ **Negative Reinforcer:** An unpleasant stimulus whose removal leads to an increase in the probability that a preceding response will occur again in the future. For example, if you have cold symptoms (an unpleasant stimulus) that are relieved when you take medicine, you are more likely to take the medicine when you experience such symptoms again. Taking medicine, then, is negatively reinforcing because it removes the unpleasant cold symptoms.
* **Punishment:** A stimulus that decreases the probability that a previous behavior will occur again. For example, expulsion from the university due to fighting, cultism, rape, exam malpractice etc.
* **Schedules of Reinforcement:**  This refers to the frequency and timing of reinforcement following desired behavior.  Behaviors that are reinforced every time they occur are said to be on a continuous reinforcement schedule while those reinforced sometimes but not always are said to be on a partial reinforcement schedule.
* **Shaping**: This is a process of teaching a complex behavior by rewarding closer and closer approximations.  In shaping, the trainer starts by reinforcing any behavior that is at all similar to the behavior he wants the trainee to learn.  Later, he reinforces only responses that are closer to the behavior he ultimately wants to teach.  Finally, he reinforces only the desired response, each step in shaping, then, moves only slightly beyond the previously learned behavior, permitting the trainee to link the new step to the behavior learned earlier.

**An abnormal behavior** can be learned if that behavior results in a positive reinforcement (rewarded by a pleasurable outcome) or a negative reinforcement (rewarded by removing an unpleasant condition). An example might be a person who gets what they want when they behave aggressively towards people. In this example the aggressive behavior has been positively reinforced, and so the person is more likely to behave aggressively towards people in the future.

**Modeling & Observational Learning**

This theory of behavior learning was championed by Albert Bandura and colleagues. According to Bandura (1977), observational learning is defined as learning through observing the behavior of another person called a model.

There are four steps involved in observational learning thus:

1. **Paying attention** and perceiving the most critical features of another person’s behavior;
2. **Remembering** the behavior;
3. **Reproducing** the action; and
4. **Being motivated** to learn and carry out the behavior.

Instead of learning occurring through trial and error, then with successes being reinforced and failures punished, many important behavioral skills are learned through observational processes (Bandura, 1986).

Observational learning is particularly important in acquiring skills for which shaping is inappropriate.  Piloting an airplane and performing brain surgery, for examples, are behaviors that could hardly be learned using trial-and-error methods without grave cost - literally - to those involved in the learning.

**Applications**

Commonly used applications by a behaviorist include: **positive reinforcement,** **token economy**, **extinction**, **contracts**.

**Strengths**

**+ Provided useful insight –** This model has given us insight into abnormal behaviour, particularly that of eating disorders and phobias.

**+ Doesn’t blame person –** This model supports the view that abnormality is not just due to the person, but also to the environment around them

**+ Led to developments in treatment –** Without this model we might play down the effects of our environment, so we can treat these as well as the patient, making the treatments more effective

**Limitations**

**– Limited View –** The model has been criticized as being very limited in how it sees abnormality. It doesn’t appreciate the effects of physiological or cognitive factors as a cause and treatment of abnormality.

**– Counter Evidence –** Lots of evidence suggests that the learning theory isn’t entirely correct. For example this model says that phobias are learnt at a certain point, however many people cannot recall any traumatic experience which could lead to being conditioned into the phobia.

**– Devalue the importance of feeling –** This model concentrates solely on the way the patient behaves, so ignores how the patient feels, which some psychologists say is just as important

**BEHAVIORAL THERAPY/TREATMENT**

Behavior therapy is defined as a form of psychotherapy used to treat depression, anxiety disorders, phobias, other forms of psychopathology.

Behavior therapy (also called behavior modification or behavioral therapy) may also be defined as “the application of experimentally derived principles of learning to the treatment of psychological disorders (Clark et al., 1997).

In practice, it takes the form of “psychological counseling to change behavior that is undesirable or potentially harmful.  Treatment most often is directed toward changing harmful habits, such as discontinuing cigarette smoking, dieting to lose weight, controlling alcohol abuse, or managing stress more effectively (Hunt & Morton, 1993).

**TECHNIQUES OF BEHAVIOR THERAPY**

Behavior therapists use many techniques to help people change their behavior.  Among them are:

1. **Operant Conditioning**

 Token economies

Extinction and punishment

Time – out

**2.           Counter Conditioning**

Systematic desensitization

Aversive Counter conditioning.

1. **Modeling**

**Token Economies:** One way of rewarding adaptive behaviour is with a token economy – an operant conditioning environment in which patients who engages in appropriate behaviours receive tokens that they can exchange for desirable items or activities. Some examples are candy, new clothes, games, or time with important people in their lives.

**Extinction & Punishment:** These are conditioning techniques that can decrease the frequency of an undesired behaviour. If reinforcers are withheld, extinction of behavior will occur.

**Time-Out:** This refers to the physical removal of a person from sources of reinforcementto decrease the occurrence of undesired behaviours.

**Counter conditioning**

It is a second major approach to behaviour therapy. It is a process of conditioning in which a person is taught a new, more adaptive response to a familiar stimulus. For example, anxiety is one of the first response people shows when they are maladjusted, fearful, or lacking in self-esteem. If a therapist can exhibit anxiety by conditioning a person to respond with something other than the fear.

**Systematic Desensitization** **(SD)**:

Is a type of behavioral therapy, by South African psychiatrist Joseph Wolpe based on pavlovian conditioning, used to help overcome phobias and other anxiety disorders.

**Aversive Counter conditioning:**

This is a counter conditioning technique that pairs an aversive or noxious stimulus with a stimulus that elicits undesired behavior so that the subject will adopt a new, desirable behavior in response to the original stimulus.