Aversive Conditioning (Aversion training)

- A type of counterconditioning that associates an unpleasant state with an unwanted behavior.

**Diagram:**
- **Before Conditioning:** UCS (nausea producing drug) → UCR (nausea)
- **During Conditioning:** UCS (drug) + Neutral Stimulus (alcoholic drink) → UCR (nausea)
- **After Conditioning:** CS (alcoholic drink without drug) → CR (nausea)
Behavioral Therapy

Useful in treating:
- Depression
- ADHD
- Anxiety (Phobias/OCD)
- Obesity
- Insomnia
- Chronic fatigue

Criticisms:
- Dehumanizing - techniques are sterile, standardized, and mechanistic.
- Lack the promotion of internal growth
- Lack of one specific theory to guide therapists in treatment.
Classical Conditioning in Therapy - Homework

- Explain the contributions of Mary Cover Jones, and explain how Joseph Wolpe expanded and adapted her work for therapeutic benefit.
Operant Conditioning

- Operant Conditioning Techniques Used to INCREASE Adaptive Behaviors:
  - Shaping--successive approximations of target behavior are rewarded (includes role-playing, behavior rehearsal, assertiveness training)
Operant Conditioning

Token Economy: an operant conditioning procedure that rewards a desired behavior.

A patient exchanges a token of some sort, earned for exhibiting the desired behavior, for various privileges or treats.
Criticisms of operant conditioning for behavior modification

- What happens when the reinforcers stop? (overjustification effect)

- Is it right for one person to control another person’s behavior?
What's the nature of the trouble, and when did it begin?

Let's drive it around and see what happens.

FREUDIAN

BEHAVIOR THERAPIST

© Original Artist
Cognitive Therapy
(CBT - Cognitive Behavioral Therapy)

Key figures:
Albert Ellis
Aaron Beck

Behaviorism focused on observable behavior (J.B. Watson, B.F. Skinner)
- Albert Bandura re-opened the door to cognitions with modeling
- The Cognitive Revolution in therapy - 1960s
- **Core assumption:** Conscious thoughts are most influential to our psychological well-being
- **Goal:** Change unhealthy thought patterns to new, more constructive ways of thinking
Cognitive Therapy

- Cognitive Therapy: focuses on faulty thinking and beliefs
  - Improvement comes from insight into negative self-talk (unrealistic things a person has been telling himself or herself)
  - Cognitive Restructuring (process of changing destructive thoughts or inappropriate interpretations)
Cognitive Therapy

Through *Functional analysis* the therapist might help the client identify her automatic negative thought patterns.

In the cognitive perspective, the cause of depression are not bad events, but our thoughts about those events.
Albert Ellis and the Theory of Rational Emotive Behavior Therapy (REBT)

- Human beings have four fundamental and interrelated processes: perception, motivation, thinking, and emotion.
- A-B-C theory suggests how people develop irrational belief systems when a highly charged emotional consequence follows an activating event.
Irrational thinking leads to emotional disturbance

- **A** = Fail exam
- **B** = I’m stupid, I’ll never be able to pass this course and I will fail this course
- **C** = Depression

Known as **A-B-C Theory**

*A does not cause C; rather, B does.*
Rational Emotive Behavioral Therapy
Goal: to change thinking pattern
Rational Emotive (Behavior) Therapy - RET/REBT

• Step 1: Identify patient’s irrational beliefs
• Step 2: Teach the patient to dispute the beliefs and substitute logical and rational beliefs
• Step 3: Evaluate the effects of disputing their irrational beliefs
Example Rational Thinking

• $A =$ fail a midterm examination
• $B =$ It’s unfortunate that I failed--I did not study hard enough and I must make sure that I study harder for the final
• $C =$ no consequences
Aaron Beck’s Theory
Cognitive Behavioral Therapy
Depressed people have a negative view of:

- Themselves
- The world
- The future

Depressed people have negative schemas or frames of reference through which they interpret all events and experiences.

*(Cognitive Distortions)*

"Cognitive Triad"

- Selective perception
- Overgeneralization
- Catastrophizing
- All-or-nothing thinking

Gently question patients to help them take off the dark-colored glasses through which they view life.
Prior to Aaron Beck, depression and anxiety were studied through case studies.

Beck created two objective tests, to quantify a person’s depression/anxiety.

This test could be administered before and after therapy, and thus theoretically measure the effectiveness of the treatment.

Known as the **Beck Depression Inventory** and the **Beck Anxiety Inventory**.
Depression and Negative Schemas

Negative schemas:
• Always present
• Unconscious
• Become activated with stressful event
• Associate minor failings (e.g. failing a test [event]) in life as major causes for their depression.

• Person with negative schema involving rejection will become depressed when a partner leaves him or her
CBT is generally short-term and is focused on solving a specific problem.

**CBT: Effective for Which Disorders?**

Empirically supported treatment for

- **Obsessive compulsive disorder**
- Depression
- Generalized anxiety disorder
- Panic disorder
- Addiction
Cognitive Therapy- Does It Work?

- Depression scores

- Waiting list patients
- Cognitive training patients

- Cognitive training patients much less depressed

- Pre-therapy test
- Post-therapy test
Stress Inoculation Training

Meichenbaum (1977, 1985) trained people to restructure their thinking in stressful situations by changing the way they talk to themselves.

**Change:** “This exam’s probably going to be impossible. All these other students seem to be relaxed and confident. I wish I were better prepared. Anyhow, I am so nervous I’ll forget everything.”

to

“Relax, the exam may be hard, but it will be hard for everyone else too. I studied harder than most people. Besides, I don’t need a perfect score to get a good grade.”

*If trained to dispute negative thought, depression-prone children and college students:*

If trained to dispute negative thought, depression-prone children and college students:
Eclectic Approach

• Basically a buffet where the therapist combines techniques from different schools of psychology.

➢ Instead of insisting upon strict adherence to one particular approach or school of thought, eclectic therapists employ elements from a range of therapeutic techniques, with the goal of establishing a course that is personally tailored to the patient or client.

Example: Sara Bellum uses REBT, psychodynamic and flooding techniques to help Amy G’dala deal with her fear of clowns.
Is Psychotherapy Effective?

There are different measures of the value and effectiveness of psychotherapy:
- whether the client is satisfied
- whether the client senses improvement
- whether the therapist sees improvement
- whether there has been an observable, measured change in initial symptoms

What Causes Improvement?
Even if clients do improve, is the improvement really caused by therapy? It could be:
- regression to the mean, drifting from initial crisis back to an average state.
- the client’s motivation to appear better in order to please the therapist or to justify the cost of therapy.

Studying Treatment Outcomes

To track the effectiveness of an intervention, use a control group not receiving the intervention, or even a placebo group.

To measure effectiveness, use objective, observable measures of symptoms rather than relying on client or therapist perceptions.
# The Relative Effectiveness of Different Therapies

Which psychotherapy would be most effective for treating a particular problem?

<table>
<thead>
<tr>
<th>Disorder</th>
<th>Therapy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>Behavior, Cognition, Interpersonal</td>
</tr>
<tr>
<td>Anxiety</td>
<td>Cognition, Exposure, Stress Inoculation</td>
</tr>
<tr>
<td>Bulimia</td>
<td>Cognitive-behavior</td>
</tr>
<tr>
<td>Phobia</td>
<td>Behavior</td>
</tr>
<tr>
<td>Bed Wetting</td>
<td>Behavior Modification</td>
</tr>
</tbody>
</table>
THERAPY HELPS...

BUT, SCREAMING OBSCENITIES IS FASTER AND CHEAPER!!

HAHA
The Biomedical Therapies

Therapies aimed at the altering the body chemistry to address psychological disorders.

Three forms of biomedical therapy:
Psychosurgery
Electroconvulsive therapy (ECT)
Psychopharmacology
A lobotomy destroys the connections between the frontal lobes and the rest of the brain. This decreases depression, but also destroys initiative, judgment, and cognition.

**Microsurgery** might work by disrupting problematic neural networks involved with aggression or obsessive-compulsive disorder.
Psychosurgery

- Surgery that removes or destroys brain tissue in the frontal lobe in an effort to change behavior.

- Egas Moniz developed the lobotomy in the 1930s. (Nobel Prize)

- Ice pick like instrument through the eye sockets cutting the links between the frontal lobes and the emotional control centers.
Lobotomy
Electroconvulsive Therapy

- Biomedical therapy for severely depressed patients in which a *brief electric current is sent through the brain of an anesthetized patient.*
Brain Stimulation

Electroconvulsive Therapy (ECT)

ECT is used for severely depressed patients who do not respond to drugs. The patient is anesthetized and given a muscle relaxant. Patients usually get a 100 volt shock that relieves them of depression.
Alternatives to ECT

Transcranial Magnetic Stimulation (TMS)

In TMS, a pulsating magnetic coil is placed over prefrontal regions of the brain to treat depression with minimal side effects.
Psychopharmacology

- The study of the effects of drugs on mind and behavior.
Drugs and Hospitalization

Graph showing state and county mental hospital residents, in thousands, from 1900 to 1990. The graph indicates a significant increase in hospitalization from 1900 to the late 1950s, peaking around 1960. The introduction of antipsychotic drugs is marked, followed by a rapid decline in the mental hospital population between 1960 and 1970.
Testing New Drugs

- When a new drug is released there is always too much enthusiasm.

- Must use a double-blind procedure to combat placebo and experimental effects.

These experiments better able use to classify different types of drugs:
Antipsychotic Drugs (neuroleptics)

- Antipsychotic drugs are a class of medicines used to treat psychosis and other mental and emotional conditions. These drugs are beginning to help schizophrenics with both positive and negative symptoms. These drugs (Thorazine/Clozapine) often have powerful side effects.
Antipsychotic Drugs (neuroleptics)

**Classical antipsychotics** [Thorazine]: Remove a number of positive symptoms associated with schizophrenia such as agitation, delusions, and hallucinations.

**Atypical antipsychotics** [Clozapine]: Removes negative symptoms associated with schizophrenia such as apathy, jumbled thoughts, concentration difficulties, and difficulties in interacting with others.
Antianxiety Drugs

- Includes drugs like Valium, Xanax and Ativan.
- They depress nervous system activity and reduce tension and anxiety by raising the GABA NT.
- Most widely abused drugs, may lead to psychological and physiological dependence.
LOS ANGELES, May 7, 2012 (Reuters) - "Painter of Light" Thomas Kinkade died of accidental acute intoxication from alcohol and an anti-anxiety medication, according to autopsy report made public on Monday by local NBC Bay Area TV.

The Santa Clara County Coroner's Office reported Kinkade's cause of death as "acute ethanol and Diazepam intoxication" and manner of death as "accident," according to the NBC station. Diazepam is the active ingredient in Valium.
Antidepressant Drugs

• Lift you up out of depression.

• 3 main forms:

1. Selective Serotonin Reuptake Inhibitors (SSRIs)

   ➢ improve the mood by elevating levels of serotonin by inhibiting reuptake.
Prozac, Paxil Zoloft
• Work by blocking serotonin reuptake.
Antidepressant Drugs

• 3 Main Types:

  2. MAO Inhibitors - increases serotonin and norepinephrine in synaptic cleft.
  **Toxic - special dietary modifications.

  3. Tricyclics - used more frequently, blocks reuptake of the NT norepinephrine by inhibiting the enzyme that breaks it down.
An additional non-drug used for stabilizing mood is...

Lithium

- used to stabilize manic episodes in bipolar disorders.
- Moderates the levels of norepinephrine and glutamate neurotransmitters.

Discovered in 1940s after administering to excitable guinea pigs.

We still don't know why they work.
<table>
<thead>
<tr>
<th>Types of Medication</th>
<th>Antipsychotic</th>
<th>Antianxiety</th>
<th>Antidepressant</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Haldol, Abilify, Risperdal, Clozaril</td>
<td>Xanax, Ativan, Buspar</td>
<td>Prozac, Celexa, Paxil, Zoloft</td>
</tr>
<tr>
<td><strong>What they do</strong></td>
<td>Reduces the symptoms of schizophrenia, especially “positive” symptoms such as hallucinations and delusions</td>
<td>Temporarily reduces worried thinking and physical agitation; might permanently erase traumatic associations</td>
<td>Improves mood and control over depressing and anxious thoughts</td>
</tr>
<tr>
<td><strong>How they work</strong></td>
<td>Blocking dopamine receptors</td>
<td>Slowing nervous system activity in the body and brain</td>
<td>Increasing levels of serotonin (sometimes norepinephrine) at synapses by inhibiting reuptake; possible neurogenesis</td>
</tr>
<tr>
<td><strong>Side effects</strong></td>
<td>Obesity, diabetes, and movement problems (sluggishness, twitching, or eventually tardive dyskinesia--odd facial/tongue and body movements)</td>
<td>Slowed thinking, reduced learning, dependence, and withdrawal</td>
<td>Dry mouth, constipation, and reduced sexual desire and/or response</td>
</tr>
<tr>
<td>Types of Medication</td>
<td>Mood Stabilizers</td>
<td>ADHD “Stimulants”</td>
<td></td>
</tr>
<tr>
<td>---------------------</td>
<td>------------------</td>
<td>-------------------</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lithium, Depakote</td>
<td>Ritalin, Concerta, Adderal</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>What they do</th>
<th>Reduce the “highs” of mania as well as reduce the depressive “lows”</th>
<th>Help control impulses, and reduce distractibility and the need for stimulation including fidgeting</th>
</tr>
</thead>
<tbody>
<tr>
<td>How they work</td>
<td>Under investigation</td>
<td>Blocking reuptake of dopamine from synapses</td>
</tr>
<tr>
<td>Side effects</td>
<td>Various; blood levels must be monitored</td>
<td>Decreased appetite</td>
</tr>
</tbody>
</table>

“If this doesn’t help you don’t worry, it’s a placebo.”

“First of all I think you should know that last quarter’s sales figures are interfering with my mood-stabilizing drugs.”
Psychotherapy: an interactive experience with a trained professional, working on understanding and changing behavior, thinking, relationships, and emotions.

Biomedical therapy: the use of medications and other procedures acting directly on the body to reduce the symptoms of mental disorders.

Combining Therapies
There are various forms of psychotherapy.

An eclectic approach uses techniques from various forms of therapy to fit the client’s problems, strengths, and preferences.

Medications and psychotherapy can be used together, and may help the each other achieve better reduction in symptoms.
Preventing Psychological Disorders

In addition to treating mental health disorders, some mental health professionals, especially social workers, also work to reduce the risk of mental health disorders. Such prevention efforts include:

- support programs for stressed families.
- community programs to provide healthy activities and hope for children.
- relationship-building communication skills training.
- working to reduce poverty and discrimination.
Preventing Psychological Disorders

“It is better to prevent than cure.”
Peruvian Folk Wisdom

Preventing psychological disorders means removing the factors that affect society. Those factors may be poverty, meaningless work, constant criticism, unemployment, racism, and sexism.