Counseling and Psychotherapy Theory

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I. Major Concepts and Propositions

1. Overview / Classical Conditioning
   1. Overview of Behavioral Approach
   2. Principles of Classical Conditioning
Overview of Behavioral Approach

Assumptions of Behavioral Approach

<table>
<thead>
<tr>
<th>Commonalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>(In an attempt to facilitate growth of individuals)</td>
</tr>
<tr>
<td>• Emphasize rational, scientific, value-neutral approaches &amp; techniques</td>
</tr>
<tr>
<td>• Focus on researching and developing skills that promote change based on empirical and experimental methods</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Narrow sense</th>
<th>Broad sense</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Results of learning appear as behavioral change</td>
<td></td>
</tr>
<tr>
<td>• Classical conditioning/operant conditioning</td>
<td></td>
</tr>
<tr>
<td>• Include emotionally and cognitively mediated hidden processes</td>
<td></td>
</tr>
<tr>
<td>• Include physiological responses (blood pressure, muscle tension), thoughts (memories, imagination etc.), and emotions (sadness, anger etc.)</td>
<td></td>
</tr>
<tr>
<td>• Developed into cognitive-behavioral approach</td>
<td></td>
</tr>
</tbody>
</table>
Overview of Behavioral Approach

Development of Behavioral Approach

Classical Conditioning
- Ivan Pavlov
- John Watson

Operant Conditioning
- Edward Thorndike
- B.F. Skinner

Social Cognitive Theory
- Albert Bandura
# Overview of Behavioral Approach

## Development of Behavioral Approach

<table>
<thead>
<tr>
<th></th>
<th>Classical Conditioning</th>
<th>Operant Conditioning</th>
<th>Social Cognitive Theory</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Main Principle</strong></td>
<td>Principle of association</td>
<td>law of effect /principle of reinforcement</td>
<td>Principle of modeling</td>
</tr>
<tr>
<td><strong>Characteristics</strong></td>
<td>Interested in the formation and reduction of reflex behaviors</td>
<td>interested in learning or shaping of new behaviors</td>
<td>interested in learning through observation/cognitive factors</td>
</tr>
<tr>
<td><strong>Focus on</strong></td>
<td>external behaviors</td>
<td>external behaviors</td>
<td>internal/cognitive process</td>
</tr>
<tr>
<td><strong>Research Subject</strong></td>
<td>Dogs, Albert</td>
<td>Cats, pigeons</td>
<td>Humans</td>
</tr>
</tbody>
</table>

- **Classical Conditioning**: Principle of association
- **Operant Conditioning**: law of effect /principle of reinforcement
- **Social Cognitive Theory**: Principle of modeling
- **Characteristics**: Interested in the formation and reduction of reflex behaviors
- **Focus on**: external behaviors
- **Research Subject**: Dogs, Albert
- **Characteristics**: interested in learning or shaping of new behaviors
- **Focus on**: external behaviors
- **Research Subject**: Cats, pigeons
- **Characteristics**: interested in learning through observation/cognitive factors
- **Focus on**: internal/cognitive process
- **Research Subject**: Humans
**Principles of Classical Conditioning**

### Principle of association

<table>
<thead>
<tr>
<th>1. Pre-conditioning</th>
<th>2. Post-conditioning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Meat</strong> (unconditioned stimulus)</td>
<td><strong>Bell</strong> (neutral stimulus)</td>
</tr>
<tr>
<td><strong>Salivation</strong> (unconditioned response)</td>
<td><strong>X Salivation</strong> (no response)</td>
</tr>
</tbody>
</table>

#### Table of Stimuli and Responses

<table>
<thead>
<tr>
<th>UCS</th>
<th>CS</th>
<th>UCR</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food given to dog</td>
<td>Sound, light (given prior to food)</td>
<td>Dog salivating</td>
<td>(After CS &amp; UCS are repeatedly given together) salivating when only CS is given</td>
</tr>
</tbody>
</table>
Principles of Classical Conditioning

\textbf{Principle of association}

<table>
<thead>
<tr>
<th>3. In the process of conditioning</th>
<th>4. Post-conditioning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bell + meat</td>
<td>Salivation (Conditioned Response)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UCS</th>
<th>Food given to dog</th>
</tr>
</thead>
<tbody>
<tr>
<td>UCR</td>
<td>Dog salivating</td>
</tr>
</tbody>
</table>

| CS | Sound, light (given prior to food) |
| CR | (After CS & UCS are repeatedly given together) salivating when only CS is given |
**Example**

- **Albert**: (Subject of Watson’s experiment)

<table>
<thead>
<tr>
<th>Beginning</th>
<th>Association</th>
<th>Result</th>
</tr>
</thead>
</table>
| Scared of loud sounds, but did not have any fear of mouse. | • Loud sound was made prior to showing a white mouse  
• 7 times a week | Started to cry at an appearance of a white mouse |
At first, the dog was a neutral stimulus.

Associated with the experience of getting bitten by the dog.

Feels anxious whenever the dog shows up.

Feels anxious even at the sight of other dogs.

**Fear of dogs (Pavlov’s dog experiment)**
I. Major Concepts and Propositions

2. Operant Conditioning
   1. Principles of Operant Conditioning
   2. Major Concepts
Principles of Operant Conditioning

- Law of effect / Principle of reinforcement
  - (Unlike Pavlov’s focus on reflex behaviors) operant conditioning focused on the learning of new behaviors
  - Depending on what is acquired as the ‘behavioral consequence’, the likelihood of the behavior is increased or decreased
Example

- Pigeon’s (new) behavior of pecking more often under certain lighting
Example

- Cat’s (new) behavior of escaping a puzzle box
Example

- When we give compliments to a child after he/she engages in a certain behavior, the child does it more.
Positive reinforcement

- A positive situation that is given as a result of a behavior

[Ex] - When we say "thank you" to a student who did certain behavior, that behavior is likely to increase.

- Positive reinforcement vs. reward ➔ a matter of order

<table>
<thead>
<tr>
<th>Positive reinforcement</th>
<th>Reward</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavior comes first, then a positive situation is given for that behavior</td>
<td>A positive situation is given first, in order to make someone do a certain behavior</td>
</tr>
</tbody>
</table>
**Negative reinforcement**

- When someone does a good behavior, the person is excused from an unpleasant task or result, in order to increase the behavior's frequency.

[Example]
- Sky looked grey, so I took an umbrella.
  - It really rained, and I was able to avoid getting wet.
  - From then on, the frequency of taking an umbrella when the sky looks grey increased.
Major Concepts

- Negative reinforcement
  - **Negative reinforcement vs. punishment**

<table>
<thead>
<tr>
<th>Negative reinforcement</th>
<th>Punishment</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Increases the frequency of a behavior</td>
<td>• Decreases the frequency of a behavior</td>
</tr>
<tr>
<td>• By <strong>excusing</strong> one from unpleasant results</td>
<td>• By <strong>imposing</strong> an unfavorable results</td>
</tr>
</tbody>
</table>
Extinction

- a process in which a behavior **receives no more reinforcement**

[Ex] - ignoring when the baby is crying
- not paying for the work done
Generalization

A phenomenon of an increase in the likelihood of a response when a reaction to a stimulus is transferred to a similar stimulus.

[Example]
- When getting a compliment after doing well on an English test, a student studies hard for her French test.
Discrimination

- an opposite phenomenon to generalization
- reacting differently according to the given stimulus

[Ex] When a student receives a positive reinforcement for different behaviors depending on whether he is with his friends (humor is reinforced) vs. when he is with his teacher (serious talk is reinforced), he will discriminate between situations and act differently.
Major Concepts

Shaping

- The process of reinforcing the reactions approaching a good behavior, so that a good behavior is gradually learned

[Ex] To a baby starting to walk
- at first, when she takes a step holding her parent’s hands
  - when she takes a step holding onto a furniture
    - when she takes 2-3 steps without holding onto anything
      - when she continues to walk without holding onto anything

reduce reinforcement for previous behaviors, and provide reinforcement for new target behavior
I. Major Concepts and Propositions

3. Social Cognitive Theory
   1. Principles of Social Cognitive Theory
   2. Major Concepts
Learning through observation

- (In addition to reinforcements) people learn through observations and modeling of others’ behaviors

[Ex] Learning from watching TV, behaviors of friends and parents
Principles of Social Cognitive Theory

Attention

- In the process of observation, the **process of focusing our attention itself** is very important along with the object or situation of observation.
- **Attraction, interest etc.** are important.

[Ex] Advertisements using famous athletes or celebrities to attract client’s interests
Retention

- In order to observe and copy **successfully**, we need to **remember the behavior of the model**

- Retention methods

<table>
<thead>
<tr>
<th>Symbolic representation</th>
<th>Verbal representation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imagination and memory of a scene</td>
<td>Remember through language</td>
</tr>
<tr>
<td>- Remembering a modeling scene that coach showed yesterday</td>
<td>- Learning dance steps by verbalizing “slow, slow, quick, quick”</td>
</tr>
<tr>
<td>- Image training of a high jump athlete</td>
<td></td>
</tr>
</tbody>
</table>
Principles of Social Cognitive Theory

Motor reproduction

• Observe & remember the behavior of the model, and then reproducing it as an apparent behavior
• Important in retaining the learned behavior.

[Ex] - Repeated practice of dance steps

- Repeated practice of I-message in counseling
**Major Concepts**

**Motivational process**

- In order to maintain a learned behavior, some form of reinforcement is necessary.
- Types

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>External reinforcement</td>
<td>Reinforcement given from the outside, others</td>
</tr>
<tr>
<td>Internal reinforcement</td>
<td>Reinforcement given to self</td>
</tr>
<tr>
<td>Vicarious reinforcement</td>
<td>Acquiring behavior by watching someone get reinforced</td>
</tr>
<tr>
<td>Self reinforcement</td>
<td>Setting standards for oneself and reinforcing oneself to meet the standards.</td>
</tr>
</tbody>
</table>
**Major Concepts**

### Self-efficacy

- A person’s awareness of one’s capability of coping in various situations.

<table>
<thead>
<tr>
<th>High self-efficacy</th>
<th>Low self-efficacy</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Expects success</strong> from oneself</td>
<td><strong>Doubts</strong> oneself while performing tasks</td>
</tr>
<tr>
<td>Symbolic/verbal representations reflecting <strong>success</strong></td>
<td>Symbolic/verbal representations reflecting <strong>failure</strong></td>
</tr>
</tbody>
</table>
II. Change Mechanisms & Intervention Methods

1. Moving from the Problem State to the Changed State
   1. Problem State vs. Changed State
   2. Change Facilitating Factor
<table>
<thead>
<tr>
<th>Problem State vs. Changed State</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Problem state</strong></td>
</tr>
<tr>
<td><strong>Classical conditioning</strong></td>
</tr>
</tbody>
</table>
| **Operant conditioning** | • Inappropriate behavior has been reinforced  
• A new positive behavior has not been learned. | • Extinction of a wrong behavior  
• Learning/shaping of a new positive behavior |
| **Social cognitive theory** | • A wrong behavior is imitated.  
• A positive behavior is not imitated. | • Inappropriate imitation is reduced  
• Positive behavior is imitated |
## Change Facilitating Factor

<table>
<thead>
<tr>
<th>Classical conditioning</th>
<th>Problem state</th>
<th>Change facilitating factor</th>
<th>Changed state</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Wrong association between stimulus and response; anxiety/fear reactions are unnecessarily triggered</td>
<td>• Disassociation of a stimulus-response association</td>
<td>• Wrong, unnecessary stimulus-response association is removed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Reduction of reflex responses.</td>
<td>• Negative behaviors reduced</td>
</tr>
<tr>
<td>Operant conditioning</td>
<td>• Inappropriate behavior has been reinforced</td>
<td>• Reinforcing a new positive behavior</td>
<td>• Extinction of a wrong behavior</td>
</tr>
<tr>
<td></td>
<td>• A new positive behavior has not been learned.</td>
<td>• Removing reinforcements for negative behaviors</td>
<td>• Learning/shaping of a new positive behavior</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Punishing negative behaviors</td>
<td>• Positive behaviors increased</td>
</tr>
</tbody>
</table>
# Change Facilitating Factor

<table>
<thead>
<tr>
<th>Social cognitive theory</th>
<th>Problem state</th>
<th>Change facilitating factor</th>
<th>Changed state</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• A wrong behavior is imitated.</td>
<td>• Provide opportunities to observe and imitate good behaviors of others</td>
<td>• Inappropriate imitation is reduced.</td>
</tr>
<tr>
<td></td>
<td>• A positive behavior is not imitated.</td>
<td>• Form positive self-efficacy</td>
<td>• Positive behavior is imitated.</td>
</tr>
</tbody>
</table>
II. Change Mechanisms & Intervention Methods

2 Strategies and Techniques

1 Characteristics of Strategies and Techniques
2 Classical Conditioning Techniques
3 Operant Conditioning Techniques
4 Social Cognitive Approach Techniques
## Characteristics of Strategies and Techniques

### Common goals of behavioral approaches

<table>
<thead>
<tr>
<th></th>
<th>Reducing the existing negative behaviors</th>
<th>Increasing new positive behaviors</th>
</tr>
</thead>
</table>
| **Classical conditioning** | • Reduce reflex behavior (anxiety, fear, compulsion) due to inappropriate associations by removing associations | • Reduce reflex response  
• Increase stable reaction |
| **Operant conditioning**    | • Remove inappropriately reinforced behavior | • Reinforce/shape positive target behavior |
| **Social cognitive theory** | • Remove inappropriately imitated behavior | • Provide opportunities for imitation of positive target behavior |
Common procedures of behavioral approaches

• Setting behavioral goals
  • Define clearly and accurately
  • Focus on the behavior change
  • Conduct functional analysis on the behavior

  - Antecedent → Behavior → Associated results
  - Analyze the situation where the behavior occurs + and the reason for continued behavior
Common procedures of behavioral approaches

**Behavior Evaluation**

- Evaluate specific behaviors
- May not get along with the DSM system
- Focus on current behaviors, not past behaviors

<table>
<thead>
<tr>
<th>Principle</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Evaluate specific behaviors</td>
<td>• Behavior interview</td>
</tr>
<tr>
<td>• May not get along with the DSM system</td>
<td>• Behavior assessment: checklist or likert scores</td>
</tr>
<tr>
<td>• Focus on current behaviors, not past behaviors</td>
<td>• Behavior observation</td>
</tr>
<tr>
<td></td>
<td>• physiological measurements: blood pressure, pulse, respiration, skin conduction, etc.</td>
</tr>
</tbody>
</table>
Common procedures of behavioral approaches

[a band that has the behavioral principles applied]
Classical Conditioning Techniques

What all strategies and techniques ultimately pursue

- Decrease unwanted reflex responses
- Gradually increase new positive behaviors
- Gradually decrease previous negative behaviors
Classical Conditioning Techniques

- **Systematic desensitization**
  - **Principle**
    - Based on the *principle of reciprocal inhibition*.
    - “Muscle relaxation and anxiety cannot coexist.”
  - Controlling anxious feelings through (a more controllable) relaxing the body
Classical Conditioning Techniques

- Systematic desensitization

  - Procedure

<table>
<thead>
<tr>
<th>Relaxation training</th>
<th>Teach clients to substitute their anxious emotions with relaxation responses.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establish anxiety hierarchy</td>
<td>Rank the anxiety provoking events according to the severity of anxiety</td>
</tr>
<tr>
<td>Desensitization</td>
<td>Ask clients to imagine anxiety provoking situations in a relaxed state</td>
</tr>
</tbody>
</table>
Imaginal exposure

- Procedure
  - Exposes clients to anxiety provoking stimulus through mental imagery (Note: it’s not actual real life situation)
  - The anxiety provoking stimulus is repeatedly reminded until the level of fear or anxiety is reduced.
Imaginal exposure

- Note
  - Internal images, instead of actual situations, are used.
  - Clients may refuse to participate in this process because of strong discomfort.
  - The client's choice is important.
  - Also may be acceptable in psychodynamic/experiential approaches.
Classical Conditioning Techniques

- "in vivo" or "real life" exposure therapy
  - Characteristics
    - actually doing something in a real life environment, not through imagination or mental imagery. [Ex] elevator
  - Types
    - Gradual approach (similar to systematic desensitization)
    - Direct approach (similar to imaginal exposure)
  - Recent development
    - **Virtual reality psychotherapy**
## Schedule of reinforcement

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Example/Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuous reinforcement</td>
<td>Giving reinforcements for <em>every</em> positive reaction</td>
<td>Complimenting every single time</td>
</tr>
<tr>
<td>Fixed interval reinforcement</td>
<td>Giving reinforcements by <em>certain time interval</em></td>
<td>Monthly salary</td>
</tr>
<tr>
<td>Fixed ratio reinforcement</td>
<td>Giving reinforcements after a specified number of responses</td>
<td>5 stickers = gift</td>
</tr>
<tr>
<td>Variable interval reinforcement</td>
<td>Giving reinforcements after an unpredictable amount of time has passed</td>
<td>Food comes out when a button is pushed about five times on average</td>
</tr>
<tr>
<td>Variable ratio reinforcement</td>
<td>Giving reinforcements after an unpredictable number of responses.</td>
<td>Slot machine</td>
</tr>
</tbody>
</table>
Schedule of reinforcement

• Note
  • Continuous reinforcements are less likely to eliminate a response than partial reinforcements.
  • Continuous reinforcements bring higher rates of responses than partial reinforcements.
  • Variable ratio reinforcement bring the highest rates of responses.
### Modeling techniques

<table>
<thead>
<tr>
<th>Modeling Technique</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct modeling</td>
<td>Directly watching a model (e.g. counselor) engaging in certain behavior</td>
</tr>
<tr>
<td>Symbolic modeling</td>
<td>Using a tool to indirectly observe (e.g. video, movie, etc.)</td>
</tr>
<tr>
<td>Self modeling</td>
<td>Showing the video recording of the client engaged in target behavior</td>
</tr>
<tr>
<td>Participatory modeling</td>
<td>A model engaging in a behavior for the client first, and then the client following the behavior (e.g. climbing a ladder)</td>
</tr>
<tr>
<td>Covert modeling</td>
<td>Helps clients to imagine a model person's behavior</td>
</tr>
</tbody>
</table>
III. Theory’s Current State and Prospect

1. Current State and Prospect

2. Implications
Current State and Prospect

5 sub-movements

• Neo-behavioristic, mediational S-R model

• Applies Pavlov, Wolpe, etc.’s principles of classical conditioning to solve clinical, societal problems

• Mediated variables, hypothetical construct, processes that are not observed (e.g. imaginary representations that trigger anxiety in systematic desensitization, etc.) from the outside are not only accepted but are considered important.
5 sub-movements

• Applied behavior analysis
  
  • Applies *Skinner’s principles of operant conditioning* to actual clinical or societal problems.
  
  • Assumption: ‘Behavior is exclusively a function of its consequences.’
  
  • No mediating variables; psychological inference is denied.
  
  • The effectiveness of intervention procedures is typically evaluated via *single-case experimental design*.
  
  • It is based on the environmental variables that trigger behavioral change, along with the principles discovered in labs (*reinforcement*, *punishment*, *extinction*, *controlling stimulus*, etc.)
Social learning theory

Based on Bandura’s social learning theory
Takes on interactional, interdisciplinary, multi-modal form
Behavior is influenced by stimulus event (classical conditioning), external reinforcement (classical conditioning), and cognitive mediation process.
Behavioral change occurs by learning through observation of a model (real model or symbolic model)
Humans have self-directed behavioral change abilities.
Self efficacy: belief and expectation that one can control the given situation and achieve desired results
5 sub-movements

• Social behaviorism/paradigmatic behaviorism
  • Emphasizes integrating the concepts of conditioning theories and traditional personality psychology, clinical psychology, social psychology
  • Basic factors of personality are formed by conditioning.
  • Principles of association & reinforcement always exist.
  • Operant conditioning (which affects extrinsic behavioral pattern) and classical conditioning (which affects emotional, cognitive reaction pattern) always interact
  • An attempt to apply the principles of conditioning to every traditional psychology
5 sub-movements

- Cognitive behavior therapy
- Emphasizes that cognitive processes and personal events mediate in the behavioral change process
- Basic assumptions of cognitive behavior therapy (Kendall & Bemis, 1983)

- Humans react to the cognitive representation of the environment rather than the environment itself
- Most of human learning is cognitively mediated.
- Thought, emotion, behavior affect each other through causal relationship.
- Attitude, expectancy, cognitive activities such as attribution, are critical in triggering, predicting, and understanding pathological behaviors
5 sub-movements

- Cognitive behavior therapy

- Cognitive process can be turned into testable formula that can be easily integrated into behavioral paradigm

- Management and integration of cognitive therapy strategies and operative techniques and behavioral contingency are possible and preferred.

- Tasks of cognitive behavioral therapist

  ✓ Evaluate negative cognitive processes
  ✓ Design learning experiences that reduces dysfunctional cognitive, behavioral, and emotional patterns
  ✓ Act as an expert that diagnoses, educates, and gives technical advices
Implications

- Suggests many techniques for acquiring new behaviors
- Greatly contributed to the **scientification of counseling**
- Stresses the importance of **specific goal setting**
• Explains reflex behaviors (emotional response patterns)/information processing (cognitive response patterns)
• Anxiety/fear triggers reflex responses
  - Classical conditioning: anxiety/fear created due to ‘association’
    $\Rightarrow$ reflex responses such as avoidance/escape
  - Psychodynamic: sensitivity to anxiety develops due to sexual conflict
    $\Rightarrow$ reflex responses such as defense mechanism/transference (illusion)
  - Object relations: sensitivity to fear (of rejection, extinction) develops due to ‘relationship experiences’
    $\Rightarrow$ reflex responses such as protection mechanism/representation/working model
  - Experiential approach: (without explanation about the source) anxiety/fear created
    $\Rightarrow$ (without mentioning types) various reflex responses
Modification of reflex response (emotional response pattern)/defense mechanism/cognitive response pattern

- Classical conditioning: modification via systematic desensitization, exposure, imagery flooding
- Psychoanalysis: modification of defense mechanism/response patterns via interpretation and insight
- Object relations: modification via empathy, containing, holding, and experience of a new kind of relationship
- Experiential approach: modification via contact, awareness, staying, examining
  - Instructions so that reflex emotional response and muscle relaxation are simultaneously experienced

Implications
Operant conditioning/social learning theory

- Modified into new behavior/thinking
  - Does not consider reflex emotional response
  - Mainly focus on modifying already formed behavioral/cognitive patterns
  - Focus on the process of maintaining what have been learned through knowledge, understanding of skills, learning through practice, extinction, self-efficacy
Implications

Past me

Present me

Classical conditioning

Operant conditioning

Social learning