Overview

- Organisms learn through imitation based on the observation of others.
- Occurs within a variety of organisms
  - Birds, Big Cats, Primates, Humans, etc.
- Major theorist Bandura
  - Wide variety of studies examining the model

Overview Continued

- A model stimulus is presented in an effort to evoke the imitative behavior
- The imitative behavior follows immediately
- The model and behavior should formal similarity
- The model must serve as a controlling variable for the imitative behavior ($S^P$)

Variables Influencing Imitation

Reinforcement

- If the model is rewarded, increased probability the observer will do the behavior.
- If the model is punished, increased probability the observer will not do the behavior.

Characteristics of the Model

- Age of the model
- Sex of the model
- If the model is seen as strong or weak
  - People imitate models that appear powerful
More Variables
- Way the model is presented
- TV = Real life

Formal Similarity
- The model and the behavior physically resemble each other
- Closer the appearance, the higher the likelihood the observer will follow the model’s behavior

Immediacy
- The temporal relation between the model and the occurrence of the imitative behavior is very important
- Imitation may also occur at later times and in the context of everyday life situations
  - However, when this occurs in the absence of a model, it is not imitation
  - The discriminative features of the environment are different in this context (i.e., the model is not controlling the behavior)

Controlled Relation
- The controlling relation between the model and the imitative behavior is paramount
  - Best evidenced when the model is novel and it still evokes an imitative response
  - After this first occurrence, the new behavior has a history of reinforcement
  - Becomes a discriminated operant

Types of Behavior Modeling
- Planned models
  - Pre-arranged antecedent stimuli that help learners acquire new skills
  - Shows the learner exactly what to do
- Unplanned models
  - Occur in everyday social interactions

Imitation Training
- Some children with disabilities require instruction in order to learn to imitate
- Objective: Teach children to “Do what the model does”
  - Generalize a rule to imitate models
  - Also known as generalized imitation
Steps to Imitation Training

- Assess the behavior in the observer you want to change
- Select potential modeling behaviors for training
- Assess prerequisite skills needed by the observer
- Train the model
- Pretest the behavior to be modeled
- Sequence modeling behaviors for training
- Perform imitation training
- Monitor the behavior

Assess the Behavior

- Need to determine the frequency of the behavior to be changed
- May need to identify stimuli, etc.
  - May do a functional analysis, etc.

Select Potential Modeling Behaviors for Training

- Begin with selecting about 25
- Depending on the observer, may need to include gross and/or fine motor behaviors
- Examples
  - Movement of body parts
  - Manipulation of physical objects
  - Use only one at a time (don’t sequence them—save sequences for later)

Assess Prerequisite Skills Needed by the Observer

- What Prerequisite skills are needed by the observer?
  - Attending (staying seated, keeping hands in lap, looking at teacher when name is called, looking at objects when prompted by teacher)
  - Some problem behaviors that may interfere with training may need to be decreased before imitation training begins.

Train the Model

- What skills are needed
- Know what you want to train

Pretesting

- Is different from the initial assessment
- Purpose: To determine if individual already imitates some behaviors to be modeled
- Procedures:
  - Get learner in "ready" position
  - If object to be used, please it in front of individual
  - Say learners name, and then "do this"
  - Present the model
  - Immediately praise all responses with formal similarity to the model
  - Record learner’s response as correct or incorrect
Sequence the Behaviors to be Modeled
- Arrange from easiest to most difficult
- First models for training are ones the individual imitated correctly on some, but not all, pretest items
- Next: Teach ones the learner approximated but did incorrectly on pretest
- Last: Teach items the learner did not perform or performed incorrectly on pretest

Performing Imitation Training
- Pre-assessment
- Training

Pre-assessment
- Purpose:
  - Evaluate learner's current performance level and determine progress in learning to respond to model
- Procedure:
  - Brief pretest prior to each training session
  - Use first 3 models currently selected for training
  - Present them 3 times in random order
  - If learner performs them correctly 3 times, remove from training sequence

Training
- Use repeated presentations of 1 of the 3 models in pre-assessment
- Use model most often responded to or responded to with closest similarity during pre-assessment
- Continue until learner responds correctly 5 consecutive times
- Use physical guidance if necessary to prompt the response
- Gradually fade prompts as quickly as possible

Behavior Monitoring - Post-Assessment
- Purpose: Evaluate how well learner can perform previously- and recently-learned behaviors
- Present 5 previously learned models and 5 models still in training
- On 3 consecutive post-assessments:
  - If child has imitated a model incorrectly on 14 of 15 trials, remove it from training
- Physical guidance may be used

Behavior Monitoring - Probes for Imitative Behavior
- Purpose: Assesses for generalized imitation
- Select 5 non-trained, novel models to check for occurrence of imitation
- Do at end of each training session or intermix in training sessions
- Use pre-assessment procedures (no antecedent or response prompts)
Guidelines for Imitation Training

- Keep training sessions active and short (10-15 minutes, a couple times a day)
- Reinforce both prompted and imitative responses
- Pair verbal praise and attention with tangible reinforcers
- If progress breaks down, back up and move ahead slowly
- Keep a record
- Fade out verbal response prompts and physical guidance

Conclusions

- Excellent way to train behavior
- Can be used in a wide variety of settings
- Can be used with a wide variety of populations
  - Students
  - Managers
  - Counselors
- Assessment is critical
- Can include a variety of additional techniques
  - Shaping