Creating Communicative Competence through Functional Communication Training

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Sheesh, Problem behavior!

Challenging Behavior and Disabilities

• Data suggest that many individuals with ID, ASD, engage in challenging behavior
• These problem behaviors may
  – Serve as barriers to learning
  – Decrease access to least restrictive environments
  – May result in smaller social networks
  – Increase parental stress
  – Result in poor health
Challenging Behavior and ASD

• Individuals do not engage in problem behavior because they have a disability

What causes problem behavior?

• The view that environmental variables control problem behavior puts the power to make change in the hands of the interventionist
• Promotes a “Can do” attitude

The Environment

That aggression is because of his autism

Its the environment,
The Variables

- In general we consider the things in the environment that happen before and after a problem behavior
- They both play an important role
- Consider the child that falls down and cries

Let’s start with the AFTER

- We start here because behavior is maintained by its consequences
- This fact is supported by volumes of data

The AFTER

- What is presented after problem behavior?
- Access to preferred stimuli
  - Environments paired with high rates of reinforcement
  - Attention
  - Edibles or tangible items
  - Sensory stimulation
The Environment

• What is removed following problem behavior?

• Removal of aversive stimuli
  – Difficult tasks
  – Aversive sensory stimuli
  – Environments paired with punishment

The Before!

• The presentation of stimuli that signal reinforcement is available

• Teacher says, “time to work” and child meltdown

• They come to control problem behavior through contingencies of reinforcement

Stop and explain to your partner

• What things control behavior!

• What role do antecedent events play in controlling behavior
Ok, back to autism

- So these environmental variables effect everyone and we are all on the road to reinforcement

So kids with ID/ASD sometimes take alternate routes to reinforcement

Functional Equivalence

- Two different responses (topographies) result in the same consequences
**Functional Equivalence**

Pushing vs. “Excuse me”

- Get a person to move

Calling out vs. Raising your hand

- To get a teacher’s attention

**Why do we pick one response**

- We typically select the response that
  - Is the easiest
  - Results in fastest reinforcement
  - Had been proven to work in the past

- So why would a kid have an hour meltdown to get skittle instead of just asking for it?

**Stop and Explain**

- What is functional equivalence?

- Why do we care?
Communicative Competence

• Individuals with autism may not have the “conventional response” and when to use it in their repertoire

• We can contribute this to poor teaching and characteristics a persons with autism

What does ASD/ID bring?

• Poor attention to relevant stimuli?
  – Overselective responding
  – Weaknesses in listener skills

• Poor imitation skills

• Uneven development across skills

• Inability to interpret opportune times to communicate?

Poor Programming

• Insufficient opportunities to respond

• Episodic in nature

• Delivered primarily by related service personnel

• Restrictive curriculum
  – Generalization
  – Consideration of natural stimuli
What should instruction look like?

• We suggest instruction should involve
  – Hundreds of trials each day
  – Across various communicative partners
  – Following a prepared curriculum
  – Careful data collection and analysis

So we propose

• One logical approach to treating problem behavior is to teach individuals ways to effectively access reinforcement?
• While simultaneous rendering useless inappropriate ways to access reinforcement
• This procedure is called
  Functional Communication Training (FCT)

What is Functional Communication Training? (FCT)

• FCT developed from the research on functional behavior assessment as a systematic practice to replace inappropriate behavior with more appropriate and effective communicative behavior or skills.
Functional Communication Training

- Supported by an extensive body of research (Kurtz, Boelter, Jarmolowicz, Chin & Hagopian, 2011)
- General treatment format
  - Identification of reinforcers that maintain problem behavior
  - Selection of a competing communicative response
  - Training of the response
  - Application of differential reinforcement
  - Schedule thinning & Generalization

1. Identification of Reinforcers

- Functional behavior assessment
  - Level 1: Ask and Guess
    - Indirect assessment (rating scales, interviews)
  - Level 2: Watch and Guess
    - Direct observation of antecedents and consequences
  - Level 3: Test
    - Functional analysis
2. Select a Competing Response

• Select a replacement communication behavior that serves the same function as the problem behavior.
  – Escape: ask for a break, ask for help
  – Attention: raise hand, call name, tap shoulder
  – Tangible: ask for object,

Remember the concept: *Functional Equivalence*

2. Select a Competing Response

• The replacement behavior should allow the learner to “get what he / she wants” just as easily or more easily than the problem

2. Select a Competing Response

• Something the child is capable of doing
• Something we can teach easily
• Something people will notice and acknowledge when the child uses it
• More efficient than the problem behavior
  – Response effort
  – Immediacy of reinforcement
2. Select a Competing Response

- The replacement communicative behavior must be recognized by communication partners
  - Staff training may be required

- The form of communication may be: signing, verbalizations, pictures, pointing, PECS, speech generating device

3. Train the Response

- Mand training
- The mand primarily benefits the speaker because it results in access to a named reinforcer (Skinner, 1957)
- First operant acquired by typically developing children (Carpenter et al., 1983)
- It is a request

Explain it

- What are some things we should consider when selecting an alternate response
Two Broads types of Mands

- Requesting/Approach
  - Controlled by a state of deprivation (EO)
  - Often occur in typically developing children at 9 mo.

- Rejecting/avoid
  - Controlled by Aversive stimulation (EO)
  - Often occur in typically developing children at 8 mo.

Mand: Instructional Components

- Teacher observes EO is present
- Teacher prompts target responses
- Child responds
- Teacher immediately delivers reinforcement

Observes EO is present

- Capture Motivation
  - Observe Behavior indication - precursor behaviors to mands

- Contrive Motivation
  - Engineering environmental events
    - Block access
    - Contrive thirst
    - Interrupted chain (Duker, Kraaykamp, & Vissar, 1994)
Prompt Correct Response

- Use errorless teaching procedures
  - Time delay
  - Most to least prompting

- Use a **controlling prompt** until the response is under control of the prompt before fading

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Child responds

- Accepts initial approximations
- Then use shaping strategies
- Avoid using generic responses
  - More
  - Eat
  - Play

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Immediately delivers reinforcement

- Specific to the response
- Reinforce prompted corrects
- Don’t be stingy
4. Apply Differential Reinforcement

- Once the student has acquired the targeted response
  - Withhold reinforcement for the problem behavior as much as possible
  - And reinforce the communicative response
- It’s important that everyone is on board

5. Schedule Thinning & Generalization

- What happens if the individual asks for reinforcers too frequently?
- We may fail to reinforce and thus weaken the response
- Often, when fading occurs there is a resurgence in the problem behavior

A Good Environment for FCT

- Choice making is encouraged
- Heterogeneous groupings
- Staff and training resources
- Parent collaboration

(Durand & Merges 2001)
Schedule Thinning & Generalization

• Delay Schedule
  – The insertion of a delay interval following the communicative response
  – Initially, the response is reinforced immediately until there is an observable effect
  – Then a delay is inserted, typically paired with a vocal stimulus (e.g., wait, in a minute, one more)
  – The delay interval is gradually increases

Hagopian, Boelter, & Jarmolowicz, 2011

Schedule Thinning & Generalization

• Demand fading
  – Used for escaped maintained behavior
  – Initially, reinforce responses immediately
  – Must complete a number of tasks prior to accessing escape
    • State criterion prior to asking for a break

Hagopian, Boelter, & Jarmolowicz, 2011

Schedule Thinning & Generalization

• Multiple Schedules
  – When a specific signal is presented individuals learn that reinforcement is available and not when it is absent
  – Component 1: Responses are reinforced each time (FR1)
  – Component 2: Extinction
  – Problem behavior is on extinction during both components
  – Initially, reinforcement component is most often in effect, but gradually extinction component is increased

Hagopian, Boelter, & Jarmolowicz, 2011
Generalization

• Program
  – multiple communicative partners
  – Environments
  – Stimuli

Additional Treatment Components

• Some data suggest that FCT may be ineffective when using extinction for problem behavior alone
  – First, consider the features of communication response
  – Second, accuracy of behavioral assessment
  – Then consider use of additive procedures
    • Time out
    • Verbal correction

Assessing Effectiveness

• Record data on communicative responses and problem behavior
• Therapeutic response should be observed in a short period of time
• If the improvement is not observed in a couple of days, then re-evaluate intervention and adjust
Describe to your partner

- The general steps in FCT
- How might I implement a fading procedure for a child that requests way too often?

For more information

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