Understanding Why and How Behavior Changes

Meet me, Regina Crone.

Words Related to Autism

- Deficits?
- Strengths?
- Behaviors?
- Services/Interventions?
- Parent, Professional, Peer prospective?
Autism Characteristics

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<th>Core Deficits</th>
<th>Behaviors</th>
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<td>Functional Expressive Language</td>
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<td>Pronoun Reversal</td>
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<td>Literal Meanings</td>
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<td>Restricted or Repetitive Behaviors</td>
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<td>Non-Functional Routines or Rituals</td>
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<td>Repetitive Motor Movements</td>
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<td>Social Interaction</td>
<td>Lack of Non-verbal Communicative Behavior</td>
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<td>Prefer Solitary Playing</td>
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*Diagnostic and Statistical Manual of Mental Disorders: DSM-IV*

Autism is Treatable

- **Applied Behavior Analysis (ABA)**
  - 550 studies published in scientific journals showing the effectiveness of behavior analytic procedures with persons with autism.
  - ABA is defined as the science in which the principles of the analysis of behavior are applied systematically to improve socially significant behavior, and in which experimentation is used to identify the variables responsible for change in behavior (Cooper, Heron, & Heward).

Research & Contributions

- **FAMOUS STUDY: Lovas 1988**
  - Applying ABA to teaching children with autism

- **VERBAL BEHAVIOR: Skinner 1957**
  - **FUNCTIONAL ASSESSMENT**: Intervention based upon function of problem behavior (Dr. Brian Iwata)
  - **MOTIVATIVE OPERATIONS**: Antecedent motivational variables (Dr. Jack Michael)
What is ABA?

- Research suggest that maladaptive (problem behaviors) in addition to adaptive (appropriate behaviors) show a functional relationship with antecedent and consequences (environmental events).
- The Science of ABA is not only used to analyze problem behavior but can also be applied to analyze how a student learns.

Applied: application, serves purpose
- Behavior: observable response
- Analysis: study of behaviors

Topography: What
Function: Why
(motivation is key)
Understanding Why

Antecedent | Behavior | Consequence
--- | --- | ---
Event that occurs prior to behavior | Observable Response | Event occurs as a result of Behavior

Practical Analysis

- “I have $1.50, am thirsty, and see a coke machine.”
- Predict my behavior?

Research to Practice: A Case Study

Aim:
- To teach appropriate behaviors
- Decrease problem behavior
- Keep from residential placement
Meet Danny

- Danny 12 years old
- * Self Contained Classroom
- * Sent home from school on a daily basis for aggressive problem behavior
- * School considering Residential Placement

Danny 12 years old
- * School begins instruction in a clinical ABA setting
- * Primary focus on Extinction and Functional Communication Training
- * Transitions back into school setting with 3 teachers: 1 student in an isolated self contained classroom

Extinction Procedure - keeping demand

- Functional Communication Training – teaching Danny how to request
• Danny 13 years old
  * Begin services with Teach Me LLC, BCBA in the classroom August 2007
  * Focus on Antecedent strategies, consequate pre-cursor behavior and aligning home and school.
  * Address Pre-Curser Problem Behavior

Problem Behaviors

• Social Significance:
  Candidate for Residential Placement

• Topographies: aggression towards others, non-compliance

• Functions
  1. To gain access to items or activities
  2. To remove demands
Three Steps Applied

Have a plan to practice for success
Identify Replacement Behavior
Address problem behavior when it occurs

Practice for Success

- Teach Leisure Activities
- Teach Requesting (100s of opportunities per day)
- Promise Procedure
- Token system
- Practice Compliance, Transitions and Accepting “no”

Replacement Behavior

- Asking for things and activities using sign language
- Transitioning Appropriately
- Accepting “no”
- Complying with demands
Addressing Problem Behavior

- Instead of addressing severe problem behavior, the focus was to consequated pre-cursor behavior
- Benefits: environment remained safe and Danny was able to be directed more easily

Address Pre-Curser Problem Behavior

If Danny engages in hand rubs, screams, bites
   Function: to gain access to attention or tangible
   * removed from environment
   * implement compliance trials
   * redirect to a nonpreferred activity

   Function: to escape a demand
   * remove from environment
   * continue to keep original demand

Teaching Procedures

1. Pair Teaching Environments With Reinforcement and Use Competing Reinforcers
2. Mix and Vary Instructional Demands
3. Fade In Effort/Difficulty Of Tasks
4. Immediately Deliver Reinforcement
5. Errorless Teaching
Instructor says: "What is it?"
Learner says: "dog"
Reinforce! +
Prompt
Transfer Trial (Test for Ind.)
Significance

- Antecedent Strategies implemented
- Consequating pre-cursor behavior to decreased overall aggressive behavior
- Practice opportunities for appropriate behaviors: accepting "no", transitions
- Teaching appropriate requesting, leisure activities
- Reinforcement with promise and token system

Significance

- Danny 14 years old
  - In a special education classroom with other students
  - Inclusion opportunities (Video)
Understanding Why

Antecedent | Behavior | Consequence
--- | --- | ---
Event that occurs prior to behavior | Observable Response | Event occurs as a result of Behavior

What is Reinforcement?

- A consequence that increases a behavior

Functions of Behavior

- Socially Mediated Positive
- Social Medicated Negative
- Automatic Positive
- Automatic Negative
Social Mediated Positive Reinforcement

Something delivered by another person following a behavior making it more likely to occur.

Social Mediated Positive Reinforcement

Tangibles

Attention

Activities

Socially Mediated Negative Reinforcement

Something (demand) removed by another person following a behavior making it more likely to occur.
Socially Mediated Negative Reinforcement

- Escape
- Avoid

Automatic Positive Reinforcement

- Movements or activities of the body that produce a feeling that makes it more likely to occur.

Automatic Positive Reinforcement

- Self Stimulatory Sensations
How to Reduce Problem Behavior

1. Identify Replacement Behavior
2. Practice for success
3. Address problem behavior when it occurs

Three Steps Applied

Implementing Behavior Intervention Plan
Problem Behaviors
- Tantrums
- Crying/Whining
- Aggression
- Self Injurious
- Stereotypic behavior
- Non-Responding

Behavior Plan: Step 1
Define Topography of Behavior
Non-example:
Bobby got upset and had a tantrum.

Example:
Bobby spits and falls on floor after told to sit in the chair.

Behavior Plan: Step 2
Why does this Behavior occur?
- Functional Assessment
- Functional Analysis
Behavior Plan: Step 2 cont.

Function of Behavior

Non-example:
Bobby **got upset** and had a tantrum.

Example:
Bobby spits and falls on floor **after told to sit in the chair.**

Behavior Plan: Step 3

Preference Assessment

Consider Replacement Behavior

Behavior Plan: Step 4

Developing Behavior Procedures

**Manipulating Antecedent**
Changing environment/ Stimulus to evoke an appropriate behavior
Behavior Plan: Step 4 cont.

Developing Behavior Procedures

Manipulating Consequence
The event / stimulus that occurs following the behavior which increases or decreases the future likelihood

Behavior Plan: Step 4 cont.

- Reinforcement
  Increases Replacement Behavior

- Remove Reinforcing Value
  Decrease Problem Behavior

Behavior Plans

Why Behavior Plans may not work....

- Lack of Consistency and Predictability
- Address behavior based on topography rather than function
- Address Consequences and not Antecedents
- Behavior is not measured or defined properly