FBA and Functions of Behavior

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Behavioral Explanation of Human Behavior

- Behavior is a product of our biology and environment

- Must be measurable and observable

- focus is on the "present environmental conditions maintaining behavior and on establishing and verifying functional relations between such conditions and behaviors"

Assumption 1

- Interfering behavior and appropriate behavior are supported by current environment

- Behaviors are modified by consequences that follow them

- *Attempts to answer " Why is the behavior occurring?"*

Assumption 2

- Behavior serves a function
  - Assumes that the problem behavior produces desired consequence or outcome for the student

Assumption 3

- Interfering behavior can be changed using strategies that address the function
    - If we know antecedents and consequences that make a behavior more likely to occur, we can manipulate the environment to allow a student to achieve the same outcome from an appropriate behavior

Assessment & Treatment of Severe Behavior

- **Impact the lives of those who engage in severe behavior:**
  - Interfere with academic, communication, and daily living skills
  - Less likely to access community
  - Difficult relations with peers
  - Difficulty obtaining education and vocational placement
  - Poorer family interactions
  - At risk for school and vocational failure
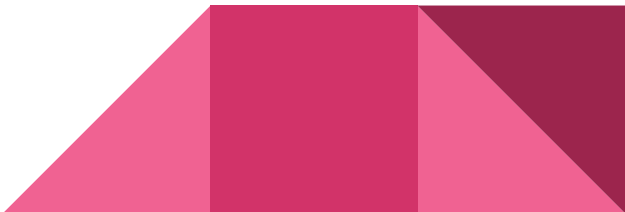 - Impacts choice-making opportunities

Assessment & Treatment of Severe Behavior

- **Impact the lives of caregivers:**
  - Increase stress
  - Strained relations:
    - with the individual
    - with other family members
    - With friends
  - Reason for residential placement
- **Impact for society:**
  - Require more services and resources
  - Estimated that lifetime costs for 2000 cohort $44 billion

Functional Behavior Assessment

- Best-practice and empirical support

- American Association on Intellectual and Developmental Disabilities

- The U.S. Surgeon General

- American Academy of Pediatrics

- Codified with federal support by IDEA (1997) and FAPE (1975)

Critical Components of an FBA

- Identify and operationalize interfering behaviors
- Document the relative occurrence of the interfering behaviors
- Identify any antecedent events and consequent events
- Identify any individual behavioral deficits related to interfering behaviors
- Evaluate reinforcement
- Develop a hypothesized function of the interfering behaviors
- Identify function-based interventions

Functional Behavior Assessment

- **Functional Behavior Assessment:**
  - To assess an individual's problem behavior.
  - The process of gathering information about the antecedents and consequences that are functionally related to the occurrence of a problem behavior.
  - Provides information that helps you determine why a problem behavior is occurring.

- Effective and efficient intervention to decrease the occurrences of a problem behavior.

Values and Functional Assessments

- Must maintain the dignity of the person
- Eliminate problem behaviors while increasing appropriate behaviors
- Allows you to examine relationships between the environment and behavior (e.g., staffing ratios)

Why Conduct an FBA?

- If interventions are developed without a functional assessment, they may make problem behaviors worse.
- **BACB Responsible Conduct:**
  - **3.02 Functional Assessment.**
  - " . . .includes a variety of systematic information-gathering activities regarding factors influencing the occurrence of a behavior (e.g., antecedents, consequences, setting events, or motivating operations) including interview, direct observation, and experimental analysis."
- **The Association for Behavior Analysts** published a "Right to Effective Treatment" which include the right of all individuals who receive behavioral treatment.
- **Federal law** mandates that an IEP team conduct FBA in certain situations.
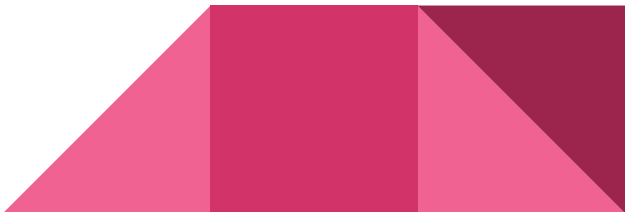
FBA and IDEIA

- Specific steps part of the FBA:
  - Identify and agree on the behaviors to be changed
  - Determine where the behaviors occur and when they do not
  - Collect data
  - Develop a hypothesis
  - Identify other behaviors that can be taught
  - Test the hypothesis (Implement Intervention based on FBA)
  - Evaluate the success of the intervention

Outcomes of a FBA

- A clear description of the problem behaviors, including classes or sequences of behavior that frequently occur together.

- Identification of the events, times, and situations that predict when the problem behavior will and will not occur across the full range of typical daily routine.

- Identification of the consequences that maintain the problem behaviors.

- Development of one or more hypotheses that describe specific behaviors, a specific type of situation in which they occur, and the outcomes or reinforcers maintaining them in that situation.

- Collection of direct observational data that support the summary statements that have been developed.

Types/Parts of Functional Behavior Assessments

- Indirect methods
- Descriptive observations
- Functional analysis

Indirect methods

- Includes:
  - Record reviews
  - Behavior rating scales
  - Adaptive rating scale (academic and social skills)
  - Informal interviews
  - Semi-structured/structured interviews

Indirect Assessment

- Relies on information obtained from others or the individual
- Provided to direct care providers and/or the individual engaging in the problem behavior.
- **Useful for:**
  - Identifying and describing behaviors
  - Identifying and describing antecedents, individual, and consequence variables
  - Generating hypothesis regarding functions
- **Disadvantages:**
  - Because the information is obtained from individuals, the individual's memory or biases may influence their responses.
  - Reliability and validity issues. . .
  - As a result, it is not recommended to rely solely on indirect assessment methods

Examples

- **FAST:**
  - https://ohiofamiliesengage.osu.edu/wp-content/uploads/2021/08/FAST-Tool.pdf
- **MAS:**
  - https://elearning.aba-onv.eu/pluginfile.php/72/mod_resource/content/0/Motivation_Assessment_Scale_II-1_5B2_5D%20-%20Test%20version.pdf
- **FAI:**
  - https://www.marshall.edu/atc/files/2013/07/Functional-Assessment-Interview-FAI-93-103.pdf

Descriptive FBA

- Involves:
  - Generate an operational definition
  - Identify an appropriate measurement system
  - Recording antecedents and consequences
  - Observation of student

- Methods include:
  - Anecdotal descriptions, Scatterplots, and Antecedent-Behavior-Consequence (A-B-C) charts

Descriptive Assessments

○ Includes:
  ● Data collection of contextual behaviors and occurrence of target behavior
  ● Observing the individual in the natural environment:
  ● ABC assessments
  ● Scatterplots
  ● Conditional probabilities-used to describe ABC data

○ Purpose:
  ● Try to identify important environmental events and problem behaviors
  ● Generate hypotheses about target behavior

Descriptive Functional Assessments

- **Advantages**
  - Direct observation of client and his/her environment
  - Suggest functional relation

- **Disadvantages**
  - Costly
  - Time consuming
  - Doesn't always identify function

Functional Analysis

- Empirical ***demonstration*** of function via test-control methodology
- In short, used to confirm hypotheses regarding problem behaviors
- Consists of:
  - Identification and description of interfering behavior
  - Determine data recording procedures
  - Systematic manipulations/consequences
  - Recording the interfering behaviors
  - Graphing and analyzing the data to determine the function

Pros of a Functional Analysis

- Exert greater control over the individual's environment

- Can show a functional relation among contingencies, the stimuli associated with them, and the target behavior

- Has more reliability than descriptive and indirect functional assessments

- Antecedents and consequences may be presented in a more consistent manner than in the natural environment

- Reduce the use of punishment

Cons of a Functional Analysis

- Reinforcing the target behavior on a dense schedule
- Contingencies may not be identical to those in the natural environment
- Limited for a low frequency behavior
- Complex
- Possibility to establish new function of targeted behavior

Behavior Intervention Plan (BIP)

- Must be based upon assessment data (i.e., FBA)
- Must be individualized
- Must include positive behavioral change strategies
- Must be consistently implemented and monitored

ABC Data

Antecedent	Behavior	Consequence

| What happens before the behavior occurs | Observable, measurable, repeatable | What happens after behavior occurs

What is our response? |

ABC Data

- **Antecedent**
  - Give as much detail as possible
  - Could be something you are not thinking of
    - Not eating breakfast
    - Missed bus
- **Behavior**
  - Describe behavior in objective terms
- **Consequence**
  - Think of teacher reaction, peer reaction, student's reaction
- Assess these data, find what child is "getting" from challenging behavior
- No more of that reinforcer for challenging behavior (extinction)
- Teach alternative behavior

More Details

- Have there been any other changes in behavior
- How often does this happen
- How long has this been an issue
- Does this happen at home
- Have there been any changes at home
- Have there been any changes at school
- How have you addressed the issue

Functions of Behavior

Four Functions of Behavior

Function	Purpose	Examples
S SENSORY	Provides Pleasant Physical Stimulation	Rocking, Twirling Hair
E ESCAPE	Removes Unpleasant Or Undesired Experiences And Interactions	Leave The Classroom During Homework Time To Escape Challenging Work
A ATTENTION	Provides Access To Attention From Others	Throw A Temper Tantrum To Gain Attention
T TANGIBLE	Provides Access To Desired Items Or Activities	Throw A Temper Tantrum To Gain Attention

Artemis ABA

ESCAPE   ATTENTION

TANGIBLE   SENSORY

Escape

- Antecedent Strategies:
  - Teach to ask for breaks
  - Schedule in breaks
  - Behavioral Momentum/Task Interspersal
  - Modify the task
  - First/Then
  - Timers
- Consequence Strategies:
  - Reinforce requests for breaks
  - Escape extinction-Follow through with all demands
- DO NOT DO:
  - Use time out
  - Send the student out of class/to the principal
 - Remove demands after problem behavior

Attention

- Antecedent Strategies:
  - Provide free attention when you "catch" them being good
  - Increase opportunities for appropriate social interactions
  - Reward with special jobs to see novel people
- Consequence Strategies:
  - Teach the student to appropriately gain attention from peers/staff and then REINFORCE bu giving them attention
  - Extinction: Ignore inappropriate attempts to gain attention
  - Remove attention when behavior begins
- DO NOT DO:
  - Reprimand
  - Negotiate
  - Argue
  - Explain
  - Have multiple staff engaging the student

Tangible

- Antecedent Strategies:
  - Teach communication skills to ASK for things
    - Must be EASY for them
  - Warnings
  - Timers
  - Visual Cues
- Consequence Strategies:
  - Reinforce appropriate requests for items/activities
  - Extinction: Withhold them for problem behavior
- DO NOT DO:
  - Provide unlimited access to reinforcers
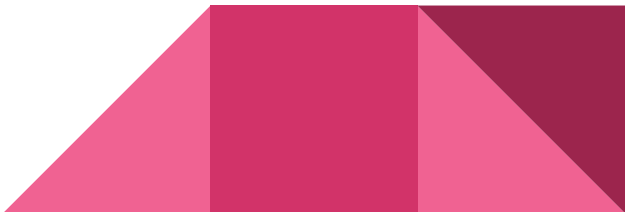 - "Give In" and allow access during problem behavior
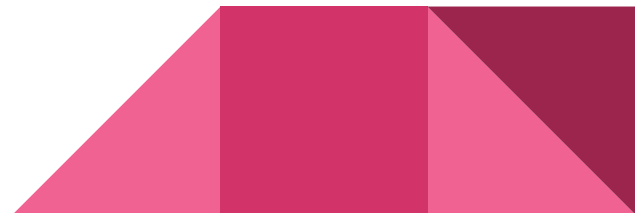
Sensory/Automatic

- Antecedent Strategies:
  - Schedule in access to the behavior
  - Find items that compete with/match the same type of stimulation
  - Find activities that are incompatible with the behavior
- Consequence Strategies:
  - Differential Reinforcement
  - Blocking
  - Response-Interruption and Redirection
- DO NOT DO:
  - Give up/write the behavior off as impossible to treat
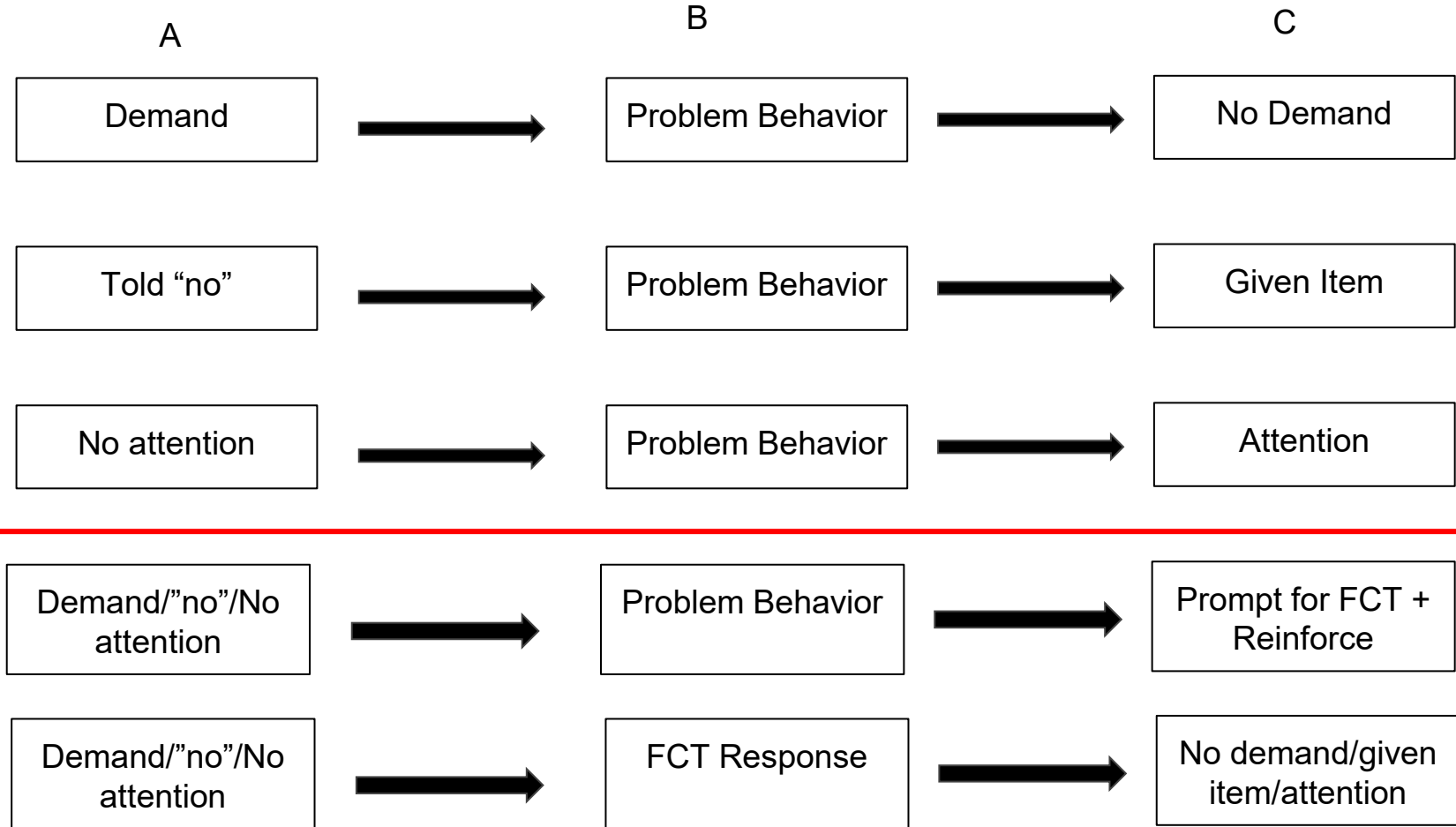 - Think medication is the only viable treatment

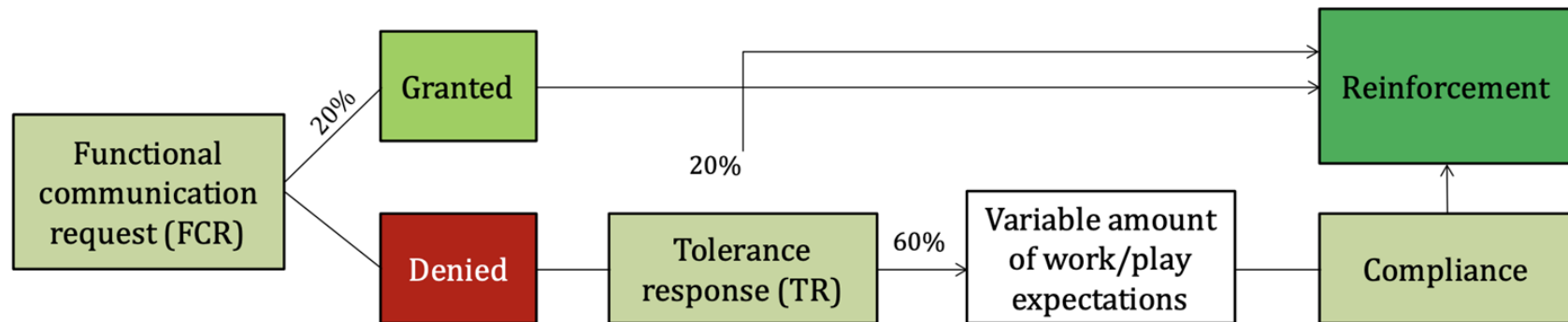|	Maintained by **ATTENTION**	Maintained by **ACCESS TO TANGIBLE ITEMS / ACTIVITIES**	Maintained by **ESCAPE FROM DEMANDS**	Maintained by **AUTOMATIC REINFORCEMENT**
ANTECEDENT BASED STRATEGIES	• Provide free attention-catch being good • Increase opportunities for appropriate social interactions • Reward with special jobs to see novel people	• Provide access to preferred items • Teach appropriate requesting skills • Warnings • Timers • Visual cues	• Provide frequent breaks • Task interspersal – subject matter and difficulty level • Task modification • First/then • Timers	• Provide access for certain periods of the day • Introduce items that compete with the behavior and/or are incompatible with the behavior
CONSEQUENCE BASED STRATEGIES	• Reinforce appropriate requests for attention • Extinction-Ignore • Time out from attention	• Reinforce appropriate requests for preferred items/activities • Extinction-withholding access • Response cost	• Reinforce appropriate requests for escape • Escape extinction-follow through	• Differential Reinforcement • Blocking • Interruption/ Redirection
CONTRAINDICATED STRATEGIES	• Reprimands • Negotiations • Arguments • Explanations • Multiple staff present at incident	• Access to tangible items/activities contingent upon problem behavior ("giving in")	• Time out • Removal from class/situation • Allowed a break	• Assuming nothing can be done because it is automatically maintained • Medication is the only viable treatment

Functional Communication Training

- Aims to replace challenging behaviour with new ways of communicating that achieve the same thing.
- The therapy might focus on verbal communication, or it might include signing, pictures or speech generating devices (AAC)
- Often used in combination with other strategies
- MUST BE EASIER AND LESS EFFORTFUL THAN PROBLEM BEHAVIOR

ABC Contingencies

A		B		C
Demand	→	Problem Behavior	→	No Demand
Told "no"	→	Problem Behavior	→	Given Item
No attention	→	Problem Behavior	→	Attention

| Demand/"no"/No attention | → | Problem Behavior | → | Prompt for FCT + Reinforce |
| Demand/"no"/No attention | → | FCT Response | → | No demand/given item/attention |

Teaching Waiting/Tolerance to "No"

- Teach to ask for the reinforcer
  - "I want it my way"
- Teach a tolerance response to denials, delays, etc
  - "Okay" "sounds good"
- Progressively increase amount of behavior/time to end the delay
- Allow ending sometimes immediately, sometimes after a short amount of time/behavior, and sometimes after long amounts
- https://www.education.uw.edu/ibestt/wp-content/uploads/2018/02/Tolerance-for-Delayed-Reinforcement.pdf

What do I do in the Heat of the Moment?

- **Inappropriate speech**
  - Respond once
  - Model appropriate response

- **Inappropriate Social Behaviors**
  - Ignore inappropriate response (BUT NOT THE CHILD)
  - Model appropriate response

- **Property Destruction**
  - Remove all objects within arms reach, if necessary remove student from area

What do I do in the Heat of the Moment?

- **Aggression**
  - REMAIN CALM
  - Block Aggressions (hitting or kicking), if possible move out of the student's reach (physically redirect)
  - Biting – push into the bite
  - Hair pulling – first place you hands over their hands, call for assistance and have that person do a finger peel
- **Self-Injury**
  - Against hard objects – either remove objects, move student or place a cushion in between
  - Block repetitive instances

What do I do in the Heat of the Moment?

- **Elopement (Bolting/Running)**
  - Follow student in a neutral calm manner, speed up when student is not looking
  - Limit verbal interactions, use gestures or physical prompts
- **Dropping**
  - Limit verbal interactions, use gestures, physical proximity or physical prompts
- **Tantrum**
  - REMAIN CALM
  - Maintain safety
  - Block and redirect
  - Once the tantrum is over it is over

Suggestions

- ***Remember, Problem Behavior= Attempts at Communication
- ***IT IS NOT THE INDIVIDUAL's FAULT!!!
- ***Once the behavior is over…MOVE ON!
- Strategies only as effective as their reinforcers
    - Sometimes, keeping the reinforcer secret is effective
- ***Pair reinforcers with praise***
- Set learners up for success, then increase difficulty
- Don't get caught up in the terminology!!!
- Be exact about rules and consequences
- Be consistent
- BE PATIENT
- Always follow through

BEHAVIORAL SERVICES

Educational Enterprises *can bring these services to you through a variety of platforms, including:*

Chris Colasurdo

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- *Functional Behavioral Assessments*
- *Modifying Instruction*
- *ABA Classroom Start-Up and Oversight*
- *Classroom Management Systems*
- *Positive Behavior Supports*
- *Parent Training*
- *Social Skills Instruction*
- *Behavior Contracts*
- *ABA Home Program Implementation and Coordination*
- *Basic Principals of Behavior*
- *Modifying Instructional Strategies*
- *Overview of Specific Disabilities*
- *Functional Communication and Social Skills*
- *Summer Behavior Institute (4-day Seminar in July)*
- *Implementing Functional Behavior Assessment*
- *Discrete Trial Instruction and Other Evidence-Based Techniques*

If you would like further information, please contact:

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