Behaviors: What are they and how do they affect my child's education?

.

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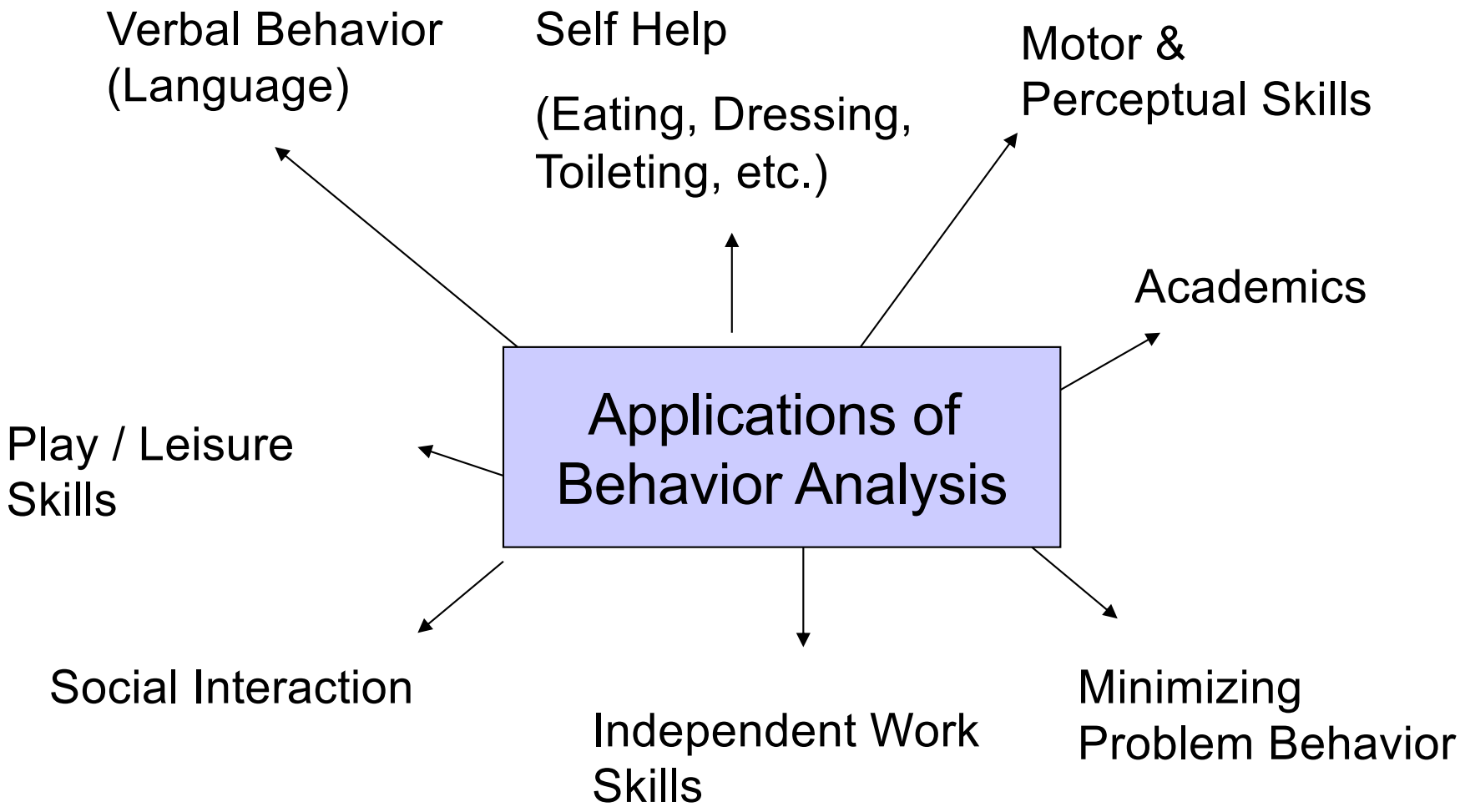
The Arc™ of Philadelphia

Behavior

- Behavior - any directly measurable thing an organism does
- Dimensions:
  - Frequency
  - Rate
  - Duration
  - Latency
  - Inter-response time
- Must pass the “Dead Man’s Test”

Philosophy of ABA

- Behavior can be learned.
- Behavior can be either strengthened or weakened by the consequences.
- We can predict and change behavior when we discover the variables governing a particular behavior.


Verbal Behavior
(Language)
Self Help
(Eating, Dressing,
Toileting, etc.)
Motor &
Perceptual Skills
Academics
Play / Leisure
Skills
Applications of
Behavior Analysis
Social Interaction
Independent Work
Skills
Minimizing
Problem Behavior

Behavioral Excesses and Deficits in Children

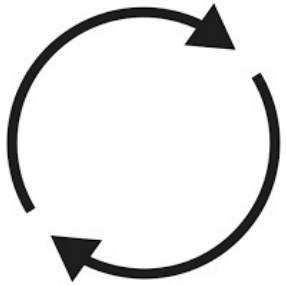
- Some children may present with behavioral differences that interfere with everyday activities, including their learning and the learning of others.
- This can include behaviors that we see too much of (excesses) as well as behaviors that we do not see enough of (deficits).
  - Examples of excesses: yelling, hitting, spitting
  - Examples of deficits: asking for help, raising hand, sharing
- Analyzing behavior helps us identify how to change it.

Behavioral vs Non-Behavioral Explanations

- ABA uses antecedents / consequences to explain behavior
  - This is helpful, because we can manipulate cause & effect patterns
- Other fields may explain behavior in ways that are not helpful
  - Nominal fallacy
  - Reification
  - Affirming the consequence

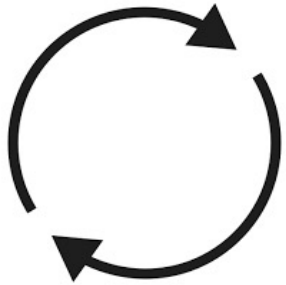
Nominal Fallacy

Explaining behavior by naming it



Explosive Personality Disorder

Hitting



He hits because he has EPD.

He has EPD because he hits.

Reification

Explaining behavior by appealing to an entity whose existence cannot be proven

Affirming the Consequence

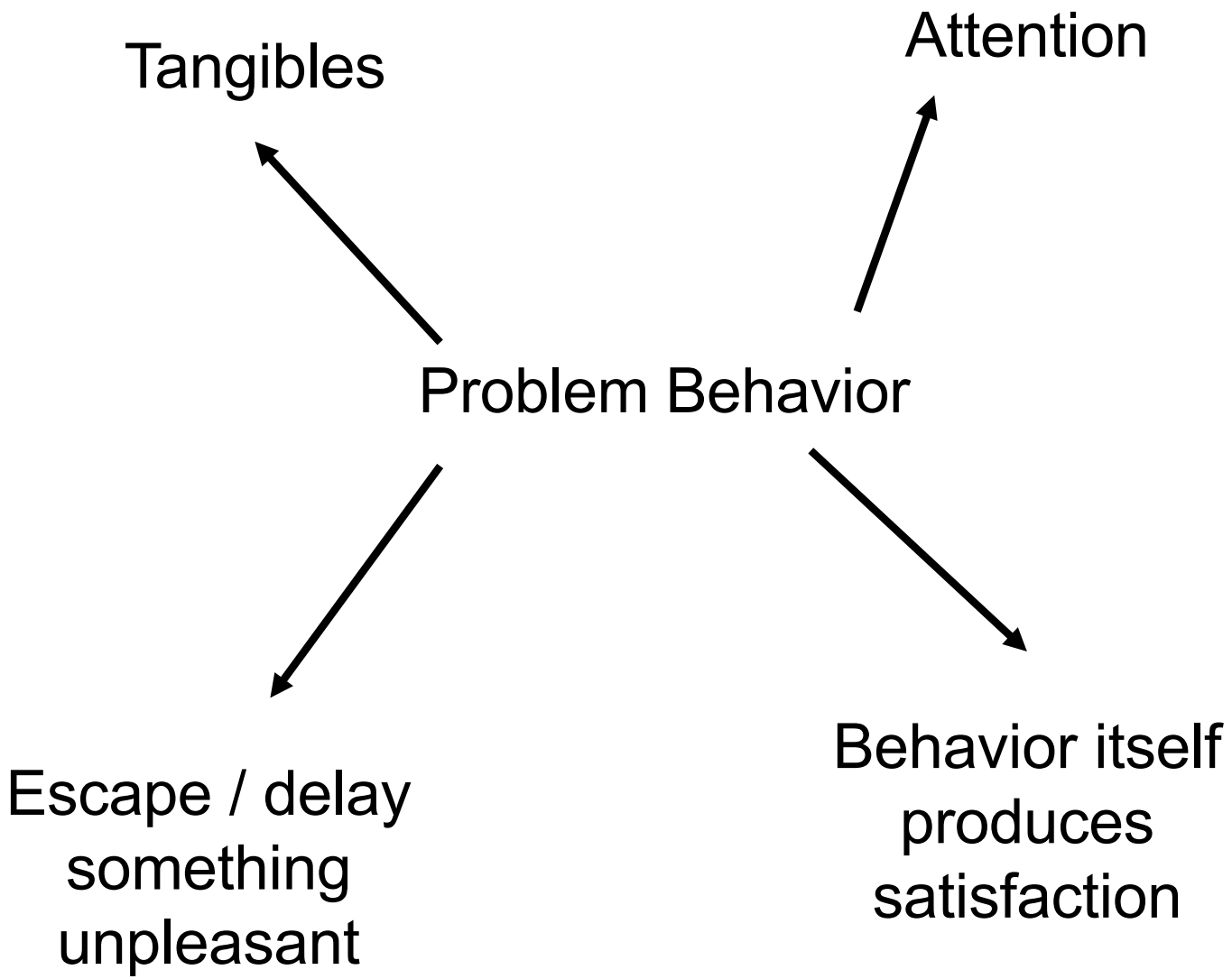
- If A, then B. B exists, therefore: A.
- Example:
  - People who have brain tumors have headaches. (True)
  - I have a headache, therefore, I have a brain tumor. (NOT necessarily true!)

Analyzing Problem Behavior

- Just one instance of problem behavior usually is not enough to determine the function
- We look for patterns of antecedents & consequences
  - What is the behavior “doing” for the child?

Topography vs. Function

- Topography – the form a behavior takes
  - Hitting, laughing, jumping, drawing, etc.
- Function – the reason why a person is engaging in a behavior
- ***A very, very important concept***:
  - Behavioral topography is NOT indicative of behavioral function (McGill, 1999).


Tangibles
Attention
Problem Behavior
Escape / delay something unpleasant
Behavior itself produces satisfaction

Types of Assessments

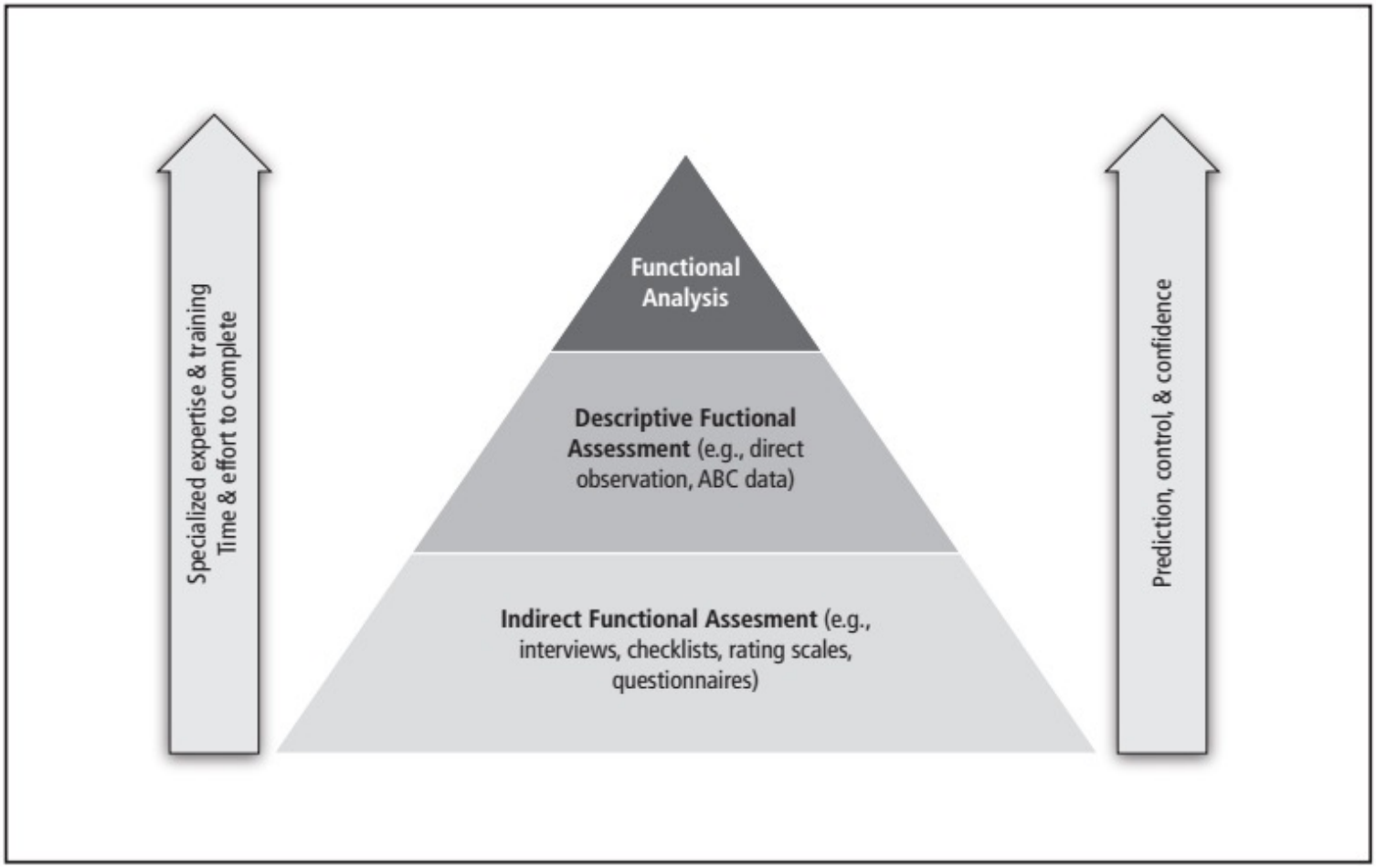


Figure 27.1 FBA methods. The amount or value of each dimension or outcome identified within the arrows increases from the bottom to the top of the pyramid.

Diagram contributed by Rebecca Eldridge.

Cooper, J. O., Heron, T., & Heward, W. (2020). *Applied behavior analysis* (3rd ed.). Pearson.

Indirect Functional Assessment

- Interviews
- Review of records
- Rating scales
  - Motivation Assessment Scale (MAS)
  - Functional Analysis Screening Tool (FAST)
  - Questions About Behavioral Function (QABF)
  - Be ware: These types of rating scales have been repeatedly demonstrated to be unreliable (Hanley, 2012)

Descriptive Functional Assessment

- Observation
- Sequential analysis of antecedents, behaviors, and consequences

Antecedent → Behavior → Consequence

- Generates a hypothesis as to why the behavior is happening

Sample ABC Data Collection

Date:	**Activity:**	
Time episode began:	**Duration of episode:**	
People Involved:		
Antecedent	**Behavior**	**Consequence**
❑ Denied access - told he **cannot** have something he wants (specify): ❑ Demand – told to do something, including transitioning from one activity to another (specify): ❑ Wants something he **can** have if he asked for it nicely (specify): ❑ **Other** (specify):	❑ Crying ❑ Yell/scream ❑ Whine ❑ Hit others ❑ Kick others ❑ Grab others ❑ Push others ❑ Push/swat materials ❑ Grab materials ❑ Flopping to floor ❑ **Other** (specify):	❑ Blocking ❑ Withheld attention / ignored ❑ Count and mand procedure ❑ Repeated demand until he complied ❑ Verbal prompt ❑ Gestural prompt ❑ Physical prompt ❑ Moved onto another activity without requiring him to comply with original demand ❑ Offered a break ❑ Offered preferred sensory input ❑ Offered food or preferred items ❑ Took away preferred items ❑ Took away upcoming events (recess, lunch, snack, etc.) ❑ Called parent ❑ Removed his shoes ❑ Physical escort to another location ❑ Physical restraint ❑ **Other** (specify):

Functional analysis

- Tests hypotheses regarding why the behavior might be happening
- Requires that the evaluator higher level of experience and expertise in comparison to indirect or descriptive assessments
- Functional analyses can be conducted safely and effectively in a variety of settings, including schools.

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FUNCTIONAL ANALYSIS IN PUBLIC SCHOOLS: A SUMMARY OF 90 FUNCTIONAL ANALYSES

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SOUTHERN BEHAVIORAL GROUP

Several review and epidemiological studies have been conducted over recent years to inform behavior analysts of functional analysis outcomes. None to date have closely examined demographic and clinical data for functional analyses conducted exclusively in public school settings. The current paper presents a data-based summary of 90 functional analyses conducted in public school settings from 2006 through 2009 for 69 students. Specifically, we present data on gender, age, race, diagnosis, topography of target behaviors, number of conditions, duration of sessions, duration of analysis, functional outcomes, setting, and person serving the role of therapist. Results suggest that functional analyses in schools are possible, practical, and produce results that are comparable to those in past research.

Key words: functional analysis, public schools, severe problem behavior

Using ABA to Decrease Problem Behaviors

- Through the manipulation of reinforcement, it is possible to decrease the occurrence of undesirable behaviors
  - What is undesirable or unacceptable may vary
  - The key to extinguishing problem behavior is determining WHY the behavior is occurring
    - This is referred to as the **function** of the behavior

Management of Undesired Behaviors:

- Determine:
  - Why is this person engaging in a given behavior? (FUNCTION)
  - How can we manipulate the environment to decrease the future frequency of this behavior? (Should be based upon function)
  - What replacement behaviors can be taught to meet this person's needs?

Reinforcement

- Reinforcer –**increases** the future occurrence of that behavior
- Reinforcers vary across persons, settings, and behaviors
- Any reinforcer can be:
  - Positive or negative
  - Social or automatic

Social vs. Automatic

- Social – someone else is required to provide reinforcement
  - Socially mediated positive – “get items/attention”
  - Socially mediated negative – “escape”
- Automatic – reinforcer for behavior is the behavior itself
  - Automatic positive – “stimming”
  - Automatic negative – “self-soothing”, “self relief”

Preventing Problem Behavior: Attention / Access to Tangibles

- Give lots of attention and enrich the environment with fun things
- Teach a way for the child to ask for attention, activities, and items

Preventing Problem Behavior: Escape

- Pair tasks / materials with reinforcement
- Change the way instruction is provided, to make the tasks easier or more fun.
- Provide frequent reinforcement for good work.
- Do not allow the student to escape from work when s/he misbehaves.
- Teach the child ask for a break.

Preventing Problem Behavior: Self Stimulation

- Provide an enriched environment and get the child interested in other things
- Prevent the behavior from occurring by physical intervention (blocking)
- Teach the child to enjoy being with others and doing other activities to receive reinforcement

Preventing Problem Behavior: Medical Issues

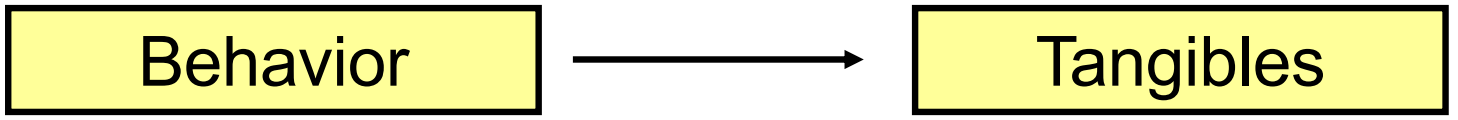
- Take note when the behavior occurs (is it seasonal?)
- When a child has allergies or is ill, disruptive behaviors may occur.
- A medical provider may be able to find the cause of the behavior and treat it with medication, dietary changes, etc.

Extinction

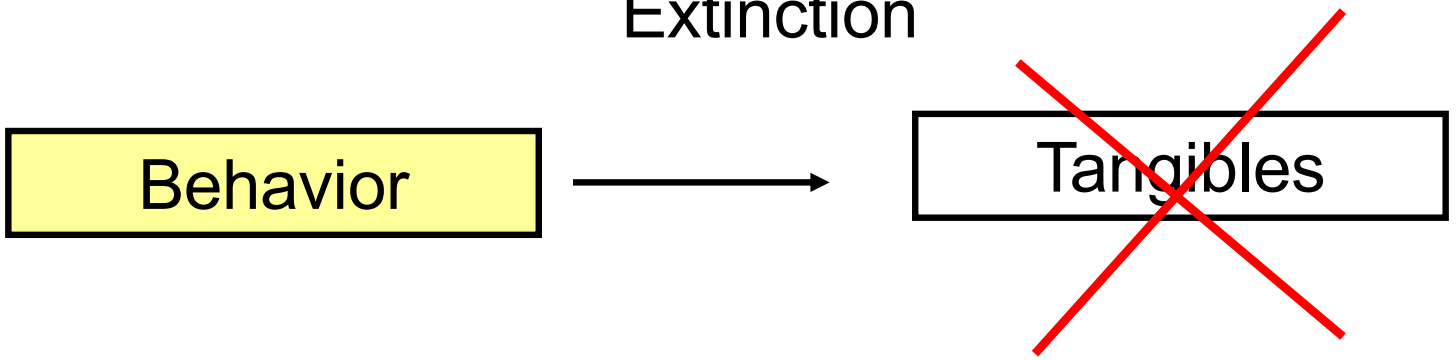
- Extinction – failure to reinforce a behavior that has been reinforced in the past, ultimately leading to a decrease in the future frequency of that behavior
- Extinction is not the same as ignoring!
- Loosely speaking, it involves doing the opposite of what you have done in the past
- Extinction may not stop the behavior immediately. In fact, it is likely to get worse before it gets better (extinction burst)

Extinction: Access to tangibles

History of reinforcement:

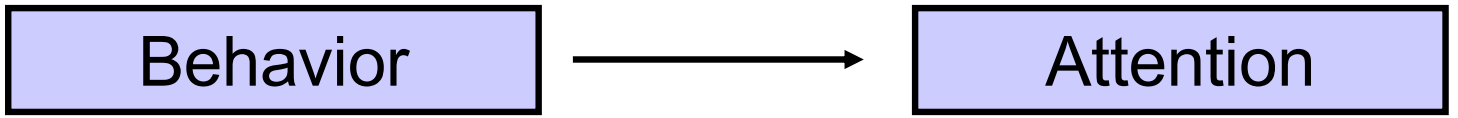


Extinction

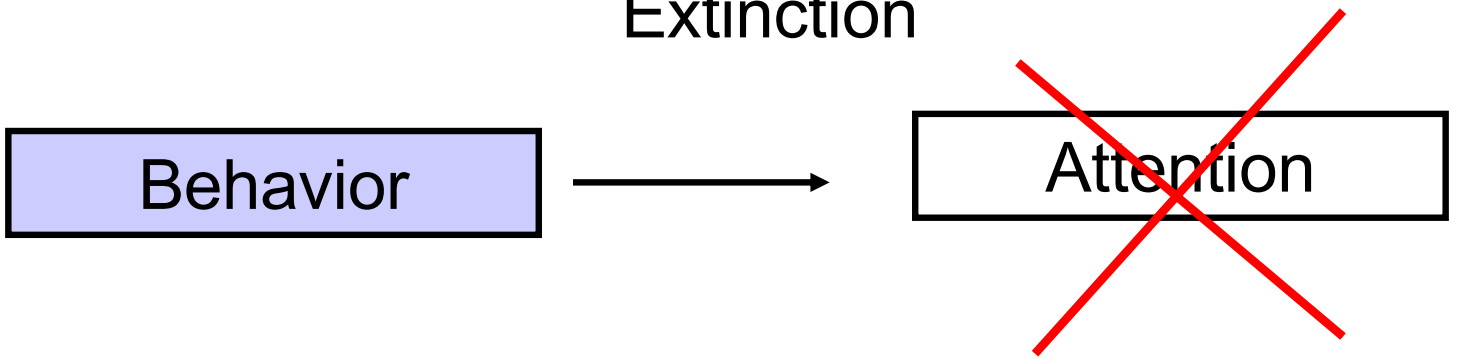


Extinction: Access to attention

History of reinforcement:

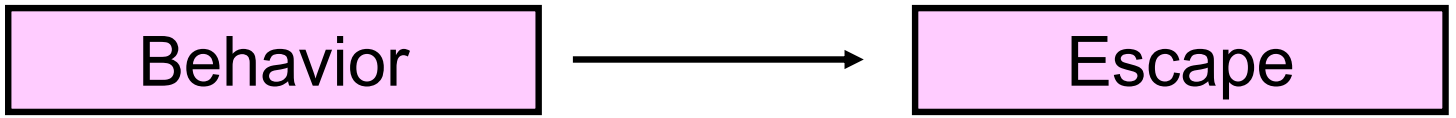


Extinction

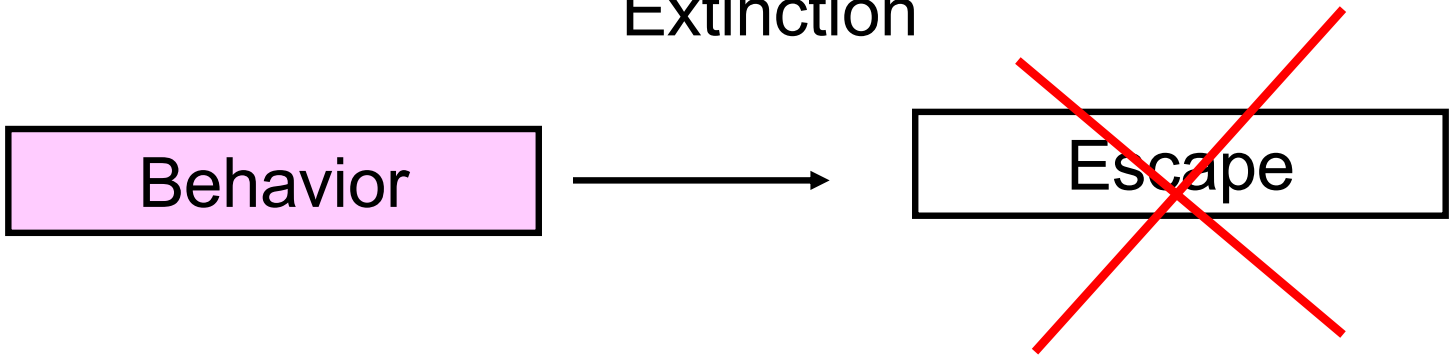


Extinction: Access to escape

History of reinforcement:



Extinction

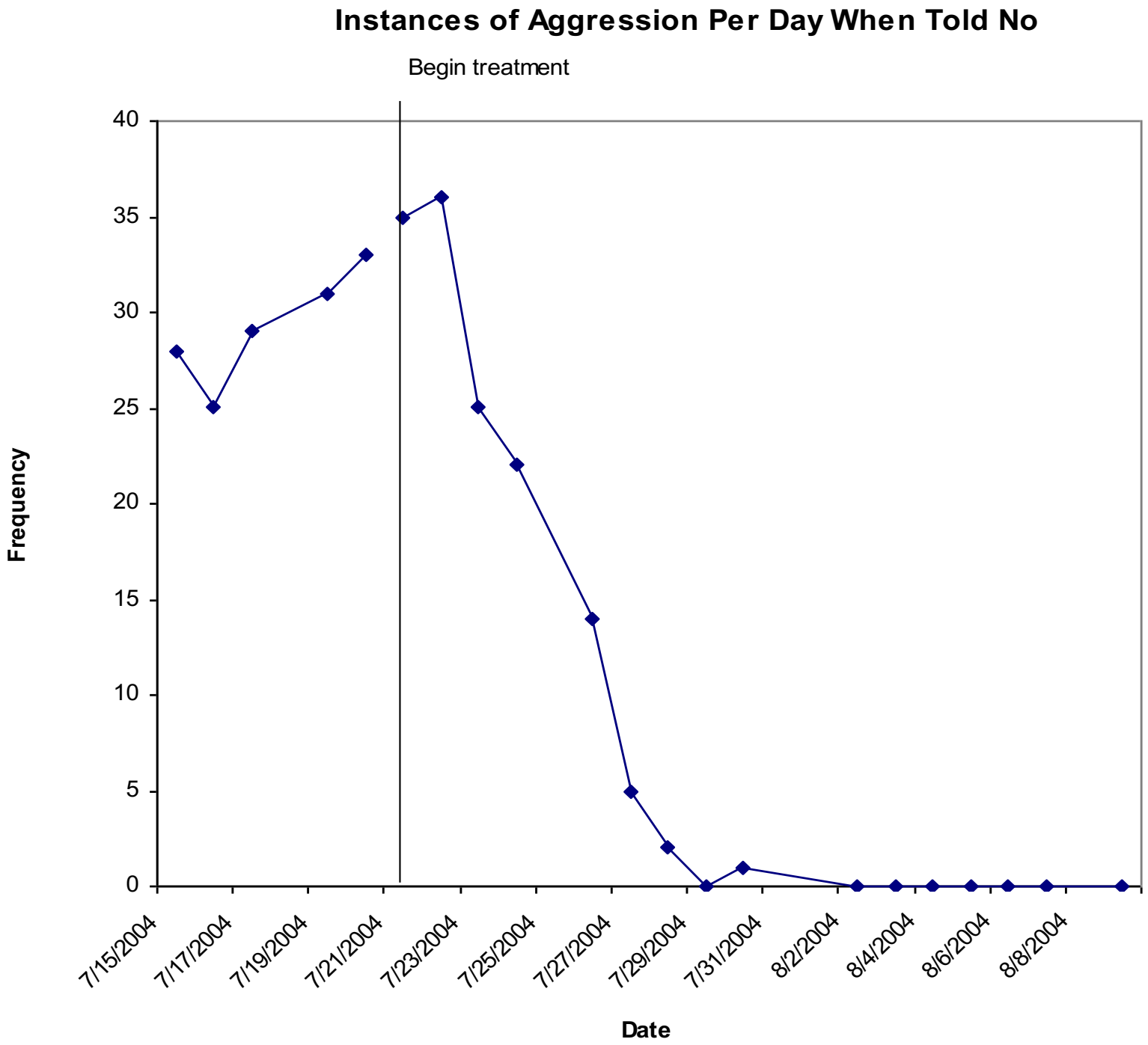


Extinction is most effective when….

- Used consistently every time
- Reinforcing intermittently under a variable ratio (VR) schedule of reinforcement will actually make the behavior WORSE than if you reinforced every time (FR1)
  - Examples:
    - Casino gambling
    - Child nagging

Monitoring Child's Progress

- Take data:
  - Frequency
  - Duration
  - Latency
- Graph data
- Make decisions based upon the graph


Instances of Aggression Per Day When Told No
Begin treatment
Frequency
40
35
30
25
20
15
10
5
0
7/15/2004
7/17/2004
7/19/2004
7/21/2004
7/23/2004
7/25/2004
7/27/2004
7/29/2004
7/31/2004
8/2/2004
8/4/2004
8/6/2004
8/8/2004
Date

Getting Support

- Working with certified behavior analysts is an ideal way to design & implement effective behavioral interventions
- If the child's behavior poses a threat to him/herself or others, BCBA involvement is especially important

Behavior Analysis Certification Board (BACB)

- bacb.com
  - Helpful information about ABA
  - Registry of BCBAs, BCaBAs, and RBTs