

Problem Behavior II: Aggression



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Overview

- Aggressive Behaviors
- Functions of Aggression
- Finding out Functions of Aggression
- Functional Analysis of Aggression
- Intervention
- Discussion

Aggressive Behaviors

- Types of aggressive behaviors
 - Biting, kicking, hair pulling, pushing, head banging, property destruction etc.
- Statistics on aggression in ASD
 - 25% of children with ASD show aggressive behaviors.
 - Aggressive behaviors are shown more toward their caregivers than others (56% vs. 32%).
- Equally common in boys and girls
- Aggression can be a form of communication!





Functions of Aggression

Scenario 1:

In the playground during break time at school, Brian screams and shouts when he is left alone for more than a few minutes. After he screams and shouts the teachers have always gone over to him and asked if he was ok and what was wrong.

Attention



Functions of Aggression

Scenario 2:

Noel's family goes to church on Sundays. Whenever Noel was engaged in problem behaviors, his parents used to give him an iPad to keep him quiet. Noel shows aggressive behaviors whenever he wants to use the iPad.

Access



Functions of Aggression

Scenario 3:

Sarah doesn't like solving math problems for her homework. One day she started screaming and throwing her stuff, and her mom gave her time-out. Now, whenever Sarah comes across challenging tasks, she shows aggressive behaviors.

Avoidance



Functions of Aggression

Scenario 4 (Thompson et al., 1998):

Ernie shows multiple aggressive behaviors, such as hitting, kicking, and chin grinding (firmly pressing and grinding his chin against the skin and bones of others). Hitting and kicking decreased when the therapist was engaged in social positive reinforcement by talking to him and giving him attention. Yet, chin grinding persisted even when the therapist was engaged with him socially .

**“Automatic”
(Sensory stimulation)**



Functions of Aggression

- Attention
 - Attention seeking behavior
- Access
 - Access to tangible items
- Avoidance
 - Avoidance from task demands
- Automatic
 - Sensory stimulation or attenuation



Finding Out the Functions of Aggression

- Indirect (Anecdotal) Methods
 - Based on informant recall (no direct observation)
 - Example: MAS (Motivational Assessment Scale), clinical interview
 - A simple & efficient method, but with poor reliability
- Descriptive (Naturalistic) Analysis
 - Based on direct observation of circumstances under which behavior occurs
 - Example: ABC analysis – recording of interactional sequences
 - More reliable than indirect methods

A-B-C Analysis

- Goal
 - To identify naturally occurring, observable antecedents and consequences of behavior
- Procedure
 - Define target behaviors (B) and identify antecedent (A) and consequent (C) events
 - If B occurs, record A and B
 - Generate hypothesis based on A-C correlations with B
 - Little, if any, “proven” information about function of behavior



Functional (Experimental) Analysis!
(Iwata et al., 1982)

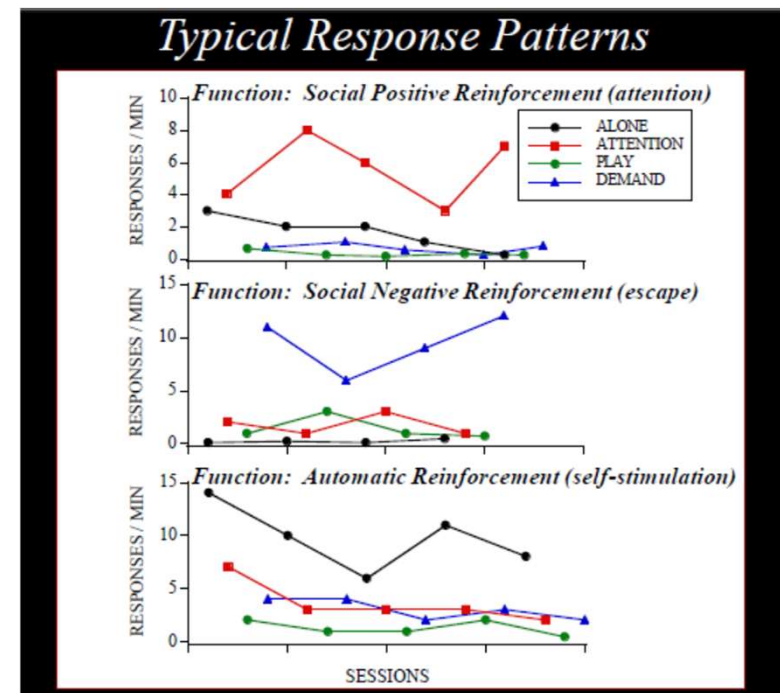


Functional (Experimental) Analysis

- Procedure
 - Assessment of behavior in a systematically controlled setting
 - Test (Experimental) condition: hypothesized A-C present
 - Control condition: hypothesized A-C absent
- Problem
 - Complex procedure
 - May yield inconclusive results depending on conditions

Functional (Experimental) Analysis

- Experimental Conditions
 - **Attention:** The subject played with toys while the experimenter “did some work.” Attention was given to the subject contingent upon AB, paired with brief physical contact
 - **Demand:** Learning trials at a table. Praise was delivered upon completion of the response. The experimenter terminated the trial contingent upon AB and turned away for 30 sec (to assess whether AB was maintained through negative reinforcement as a result of avoiding demand situations).
 - **Alone:** Child was placed in the therapy room alone, without access to toys or any other materials.
- “Control” Condition
 - **Play:** Free play with toys. The experimenter delivered praise and brief physical contact contingent upon appropriate behavior. AB was ignored. Served as a control condition.



(Iwata et al., 2010)



Next Steps: Interventions

- Reinforcement-based approaches to A-B-C
- **A:** Noncontingent reinforcement (NCR)
 - Eliminate the behavior's **A**ntecedent event by providing reinforcement independent of behavior
- **C:** Extinction (EXT)
 - Eliminate the behavior's maintaining **C**ontingency
- **B:** Differential reinforcement of alternative **B**ehavior (DRA)
 - Replace the behavior with an alternative response

Interventions

Antecedent Manipulations	Reinforcement Based Strategies	Consequence Control
• Changes in instructional context • Video priming • Environmental enrichment • Prompting procedures • Progressive time delay • Photographic activity schedule • Interspersed requests • Choice making • Premack principle (First-Then)	• PECS (Picture Exchange Communication System) • FCT (Functional Communication Training) • DR (Differential Reinforcement procedures) • NCA (Non-Contingent Attention) • DNR (Differential Negative Reinforcement procedures)	Behavior reduction strategies • Extinction • Overcorrection • Response cost • Time out • Blocking

(Brosnan, J. & Healy, O. (2011). A review of behavioral interventions for the treatment of aggression in individuals with developmental disabilities. *Research in Developmental Disabilities*, 32(2), 437-446.)



Discussion

- What kind of aggressive behaviors do your clients show? What was a typical reaction of the parents to those behaviors?
- What is the function of his/her aggression?
- What intervention do you use?
- Interventions for multiple functions of an aggressive behavior

References

- Anderson (2011, November 8): *New Research on Children with ASD and Aggression*. Retrieved from https://iancommunity.org/cs/simons_simplex_community/aggression_and_asd
- Brosnan, J. & Healy, O. (2011): A review of behavioral interventions for the treatment of aggression in individuals with developmental disabilities. *Research in Developmental Disabilities*, 32(2), 437-446.
- Iwata (2010): *Functional analysis of problem behavior: the basics* [PDF document]. Retrieved from <http://autism.outreach.psu.edu/sites/omcphplive.outreach.psu.edu.drpmis.autismconference/files/42%20and%2055%20Presentation.pdf>
- Iwata, Dorsey, Slifer, Bauman, & Richman (1982). Toward a functional analysis of self-injury, *Analysis and Intervention in Developmental Disabilities*, 3-20.
- Richler & Gotham (2014, December 5): *Understanding aggression in autism*. Retrieved from <https://spectrumnews.org/opinion/guest-blog-understanding-aggression-in-autism/>
- Roscoe, Kindle, & Pence (2010). Functional analysis and treatment of aggression maintained by preferred conversational topics, *Journal of Applied Behavior Analysis*, 723-727.
- Thompson, Fisher, Piazza, & Kuhn (1998). The evaluation and treatment of aggression maintained by attention and automatic reinforcement, *Journal of Applied Behavior Analysis*, 103-116.