CARD
CENTER FOR AUTISM
& RELATED DISORDERS

Promoting Generalization of Positive Behavior Change: *Practical Tips for Parents and Professionals*

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CARD Distinguished Lecturer Series

CARD Distinguished Lecturer Series

- **What is the Distinguished Lecturer Series?**
  - Open to everyone
  - Free of charge
  - Outreach and education for the community
  - Targeted toward parents and professionals
    - Source of the material is scientific research, but…
    - Tone is purposefully non-technical; user-friendly
    - I'm hoping this talk will be of some practical use to you
  - Feel free to raise your hand and ask questions at any time

Brief Introduction to CARD

- CARD was founded by Dr. Doreen Granpeesheh in 1990

- Dr. Granpeesheh received her PhD from Lovaas at UCLA

- We provide intensive behavioral educational services to children with autism and related disorders

- We have multiple offices in the U.S. and offices in England, Australia, and New Zealand

Who Am I?

- My job is Co-Director of Research and Development
- I direct research projects which investigate the effectiveness of real-life interventions for children with autism
- I direct the development of new internal and external projects (e.g., curricula, internal and external training, etc.)
- I am giving this talk because I love talking with parents – you are truly on the front lines, 24-hours a day, forever
- Now for tonight's talk…

The CARD Perspective

- Our science is Applied Behavior Analysis, or "ABA"
- Our perspective is that scientific knowledge regarding the causes of learning and motivation can be applied to everything people do:
  - Language
  - Social skills
  - Emotional understanding
  - Academic behavior
  - Executive function
- Other acronyms: AVB, VBA, PRT, NET, NLP, PBS – all are facets or groups within ABA

Topic

- ## What is "Positive Behavior Change?"
  - Behavior change means that someone is doing something differently than they used to
  - *Positive* behavior change simply means something you did as a parent or professional affected something that a child does in a positive way

Topic

- Terminology note: "Behavior" does not mean "bad behavior," as in "He had a lot of behaviors today"
- Behavior is anything anyone does, bad or good

Topic

- What is "Generalization?"
  - It's a "spreading" or "expansion" of teaching, beyond what was directly or intentionally done
  - Example: explicitly teach turn-taking to a child at school and then the child starts taking turns at home with siblings or friends, even though no one ever tried to teach turn-taking at home

Generalization

- Three Types of Generalization (examples)
  - *1. Across people*:
    - Teach a child to say hi to a Sally and he/she then says hi to other people as well (stimulus generalization)

Generalization

- **Three Types of Generalization (examples)**
  - *2. Across settings*:
    - Teach a child to wash her hands before a meal at school and then she washes her hands before meals at home, even though no one has taught her to wash her hands before meals at home (stimulus generalization)

Generalization

- Three Types of Generalization (examples)
  - *3. Across behaviors*:
    - Teach a child to add "s" on to the end of the words "tree," "car," and "dog," when referring to more than one, and then he/she does so with other nouns, without having to be taught each noun individually (response generalization)

Relevance of Generalization

- What is so special about generalization?
- It is nothing less than the goal of behavior change (e.g., education, therapy, etc.)
- If a child is not affected in a positive way across most or all of his/her life, then the change is not very meaningful
- Examples: potty training, learning to request items, decreasing tantrums

Generalization is Not Automatic

- Unfortunately, generalization is not automatically guaranteed
- If you don't do something to intentionally make it happen, you should expect it to *not* happen
- Individuals with autism tend to have a particularly difficult time with generalization
- This is true in home life and at school

Generalization is Not Automatic

- Any time you change an individual's behavior, whether it's child or a client, plan on intentionally making generalization happen from the start

- It's not something extra; it has to be a central part of every intervention and every parenting strategy, and if it doesn't happen, then behavior change is all but meaningless

Generalization is Not Automatic

- How generalization occurs
  - Discrimination is the opposite of generalization. It means that a behavior only occurs in the presence of a particular stimulus (e.g., person, place, or thing) because it was only taught in the presence of that stimulus
  - If you have high discrimination, you have low generalization
  - Generalization occurs when you have NOT only taught a behavior in the presence of one stimulus; when you teach it in the presence of many
  - The rest of this talk describes methods for doing this…

# Methods for Generalization

- Overview of the Remainder of the Talk
  1. Teaching many examples
  2. Teaching across many people
  3. Teach with multiple instructions
  4. Choose "functional" behaviors
  5. Learning occurs 24-hours per day

Teach Many Examples

- The most reliable way to get generalization is to teach many different examples

- Technical term is "training sufficient exemplars"

- This can be done across people, settings, objects, behaviors, or any other relevant dimension

Teach Many Examples

- Example: *teaching the word "car"*
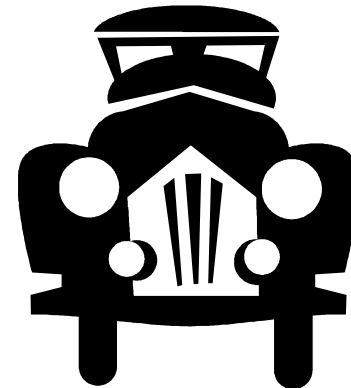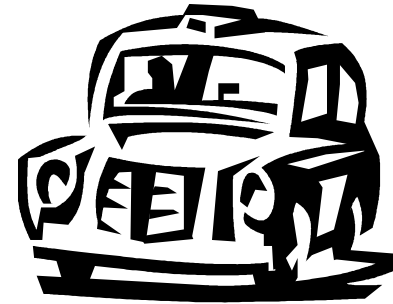
Teach Across Many Different People

- It's the same basic logic as teaching many different examples…
- If you want a child to do something in the presence of many different people, make sure and have many different people teach him/her
- Generalization across people is going to be better if a child has several different teachers, rather than just one

Teach Across Many Different People

- At home: make all parents / siblings / grandparents, etc., teach the child the same thing
  - Example: not giving in to whining. All parents must not give in to whining; it's not enough if only mom or dad does it
  - Make sure whenever Johnny wants something, he has to ask for it without whining, even if he is asking grandma

Teach Across Many Different People

- At school:
  - Use all available staff. If you have a teacher and an aid or two in the classroom, make sure all take turns teaching the same thing to the child across the day
  - Staff taking turns with the different students in a classroom enhances generalization and also gives everyone a much-needed break
  - Make sure all school staff are trained on the procedure (e.g., regular teacher, resource room teacher, SLP, PT, etc.)

Teach Across Many Different People

- Parent-supervised ABA programs:
  - Make sure your child has more than one therapist
  - It's more work for you to hire, train, and manage them, but it's absolutely crucial and is considered an industry standard now
  - Staff will last longer and not burn out as quickly too

Teach with Multiple Instructions

- A skill is not really generalized if a child can only respond to one particular instruction, when it is stated in exactly the same way

- If a child understands what you have taught them, you should be able to say it in a couple different ways

- This is another variation on teaching many examples

Teach with Multiple Instructions

- Example: teaching a child to come and sit at his/her desk when asked. The child should be able to respond to many different instructions that all mean the same thing:
  - "Come sit please"
  - "Time for work"
  - "Time to come sit at your desk"
  - "Come and sit down"
  - "Let's go do some work"
  - "Come over to the table"
  - "Come here"

Teach with Multiple Instructions

- It's very common for children with autism to NOT automatically generalize understanding to various instructions which all mean the same thing
- What to do?
- Start with teaching one
- When the child learns that, teach another, while still using the old one occasionally
- When the child has the second (and maintains the first), then teach another, and so on…

Teach with Multiple Instructions

- Eventually, when a particular child has learned in this way enough times, you can start by teaching with multiple instructions from the beginning when teaching new skills

- But be careful…this equals NOT being consistent, which we know can be harmful with newer learners

Choose "Functional" Behaviors

- Teach behaviors which are likely to be useful to the child in his/her everyday life
- Put another way, all behavior change should result in the child being able to independently get reinforcement out of his/her environment
- Example: teaching the child to request things he/she wants (technical term is "mand")

Choose "Functional" Behaviors

- A VERY common mistake in working with children with autism and other developmental disorders is teaching new skills that are not useful
  - May not really improve the child's life
  - The skill may not maintain, even in the setting in which it was taught
  - The skill may not generalize to other settings or people
  - Most importantly, there is no ongoing source of reinforcement for the behavior in everyday life

Choose "Functional" Behaviors

- Very common problematic example: teaching a child to say or sign "please" or "more," rather than teaching him/her to ask for what they want

- Why is saying or signing "please" or "more" less functional than learning to ask for the particular thing one wants?

Choose "Functional" Behaviors

- Because it doesn't actually identify for the listener what the child wants

- The child must also point or gesture, and the item must therefore be in sight or within reach

- If a child walks around his classroom saying "please," it's not likely to continue to be maintained, relative to if he/she can indicate what, in specific, he/she wants

Choose "Functional" Behaviors

- So how would you do it?
- Start by figuring out what the child wants, in each setting where you would like to see communication occur (preference assessments)
- Then teach a simple form of communication for the child's favorite item
- Start easy (e.g., picture card, sign language, short vocal approximation)

Choose "Functional" Behaviors

- Once the child is asking for one thing consistently, then:
  - Teach another, and another, and so on…
  - Once the child can ask for several highly preferred items or activities (and continues to do so without help), then you can worry about increasing difficulty (e.g., requiring a full word or sentence, etc.)

Learning Occurs 24-Hours per Day

- Establishing generalization should not *only* occur during planned times

- Pre-planned times are necessary, but…

- Every moment that the child is awake is another opportunity to learn something

- This is especially true for generalization

- Why? Because the child is usually *not* in therapy or school, they are usually in their natural environment, and things learned in that environment are likely to maintain in that environment

Learning Occurs 24-Hours per Day

- Examples:
  - Regardless of where you are or what time it is, if a child wants something, that's an opportunity to practice generalizing requests (mands)
  - Regardless of where you are or what time it is, when you pass by an object that the child knows the name of, that's an opportunity to practice generalizing naming and commenting

Troubleshooting

- Don't blame the child or the diagnosis
  - More than 30 years of research prove that children with autism and other developmental disabilities can learn good behavior and generalize it
  - If what you did isn't generalizing, it is your job to make it work and to never give up
  - Blaming the diagnosis or the "functioning level" of the child doesn't help figure out how to fix the problem

Troubleshooting

- Be systematic
  - Try one approach at a time
  - Be consistent
  - Don't give up
  - Give it enough time to give it a chance to work, BUT…
  - It's better to work yourself into the ground for a week, and give the treatment a good shot, then to give it a half attempt for a month

Troubleshooting

- Baby steps
  - Don't expect to get generalization in huge steps; it's usually in very small steps
  - Example: single site words → whole sentences.
    - Taught child with autism to read many single site words on flashcards
    - Child was not automatically able to read sentences in a book
    - The generalization situation was too different from the teaching situation
      - Book has several words in a row
      - Reading a sentence before getting a reinforcer is harder than reading one word before getting a reinforcer
    - Solution was to step back a couple steps: have child read two flashcards in a row, then three, etc.,
    - Then reading from a book was no problem

Troubleshooting

- Baby steps
  - Another example: decreasing non-compliance with small tasks and then expecting it to be gone with larger tasks
  - Treatment for non-compliance: if child completes one small step of one small task, he gets a break and a big reinforcer
  - This may work very well, but then don't expect the child to immediately be able to complete a 10 minute task to earn the same reinforcer
  - Increase difficulty and length of task very slowly; only increase when the previous step is successful consistently; be patient

Troubleshooting

- Watch out for prompt-dependence
  - When you use a prompt to teach a child to do something (e.g., modeling the word "juice" for the child), the child may become dependent on the prompt and the desired behavior may not occur if the prompt does not happen
  - This is called "prompt dependence"
  - It can prevent generalization because not everyone will give the prompt in every setting
  - Very common in children with autism

Troubleshooting

- Avoiding prompt dependence
  - As soon as the child starts to do the behavior, start fading back your prompts
    - Introduce delays before prompts (e.g., hold up something the child wants, but wait a couple seconds before modeling the appropriate request)
    - Gradually decrease physical assistance (e.g., fade full physical guidance to light physical guidance, etc.)
    - Gradually decrease vocal prompts (e.g., instead of modeling "cookie," model "cook…")

Troubleshooting

- Keep it simple
  - Often times, the simplest solution is the best
  - Example: rewarding small attempts at school work with big breaks and praise…then gradually increase work
  - Keeping things simple will make it easier for you and others to do it and make it easier for the child to understand
  - Worry about fine-tuning later, after you have been successful with something simple

The Bottom Line

- Acquisition / intervention is only the beginning

- Generalization is not guaranteed – it needs to be fought for

- Generalization, itself, requires explicit planning and intervention

The Bottom Line

- If you taught a child a good behavior or helped him/her decrease a challenging behavior, your job has just begun

- Now, figure out how you are going to spend at least twice as much time following up and forcing generalization as you did in teaching it to begin with

The End

- Never give up!
- Questions?
- Also, feel free to email me with questions at j.tarbox@centerforautism.com and this presentation will be available to download from our website at http://www.centerforautism.com