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KENTUCKY AUTISM TRAINING CENTER

Verbal Behavior

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Today's Agenda
- Overview of KATC
- What is Verbal Behavior
- What should a program include
- Conclusion

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The mission of the Kentucky Autism Training Center is to strengthen our state's systems of support for persons affected by autism by bridging research to practice and by providing training and resources to families and professionals. KATC is committed to improving the quality of life for those affected by ASD.

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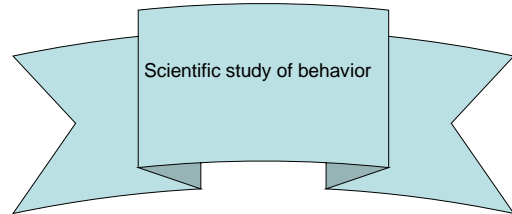

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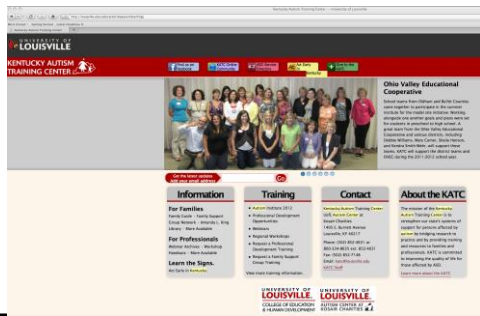
Resources on Website

- Information and resources for families and professionals
- Family Guide
- Support Groups
- Amanda King Resource Library

- Awareness brochures
- Learn the Signs. Act Early
- Webinars
- Trainings

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–Let's first Look at……
Applied Behavior Analysis

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What is Applied Behavior Analysis (ABA)

Scientific study of behavior

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ABA

| Looks at how principles of behavior | → | are applied to improve socially significant behavior |

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ABA and Language

Where does language fall into ABA?

How is language addressed in ABA?

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ABA and language

- Traditional view of language and focused on interventions that emphasized
  - Receptive skills (e.g. following directions, object identification
  - Then later introduce expressive skills (e.g. repeating, naming, answering questions)

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ABA curricla

- Group of researcher's heavily influenced by B.F. Skinner's analysis of language developed curriculum based on his analysis
  - View language functionally with each verbal response defined by its unique antecedents and consequences
  - Focuses on acquisition of functional and distinct verbal operants rather than topographies

Language

Topography

Functional

Looks at form and structure

Cause of the response
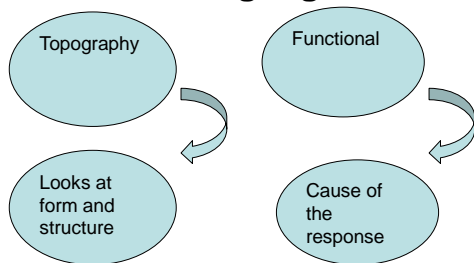
Is Verbal Behavior ABA?

- Misconception arises when individuals indicate they are not doing ABA but rather are doing VB.

Applied Behavior Analysis

- No new principles are used in VB. The same principles relevant to all behavior are used to analyze VB.

Verbal

Behavior

What is Verbal Behavior?

- Is behavior that is reinforced through the mediation of another person's behavior.

- Skinner defined verbal behavior by the function of the response, rather than its form.

» (Cooper, 2007)

Speaker vs Listener

- One of the most important distinctions in verbal behavior is the distinction between the speaker and the listener

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Speaker vs. Listener

Speaker → gain access to reinforcement, control environment

Listener → must learn how to reinforce the speaker's verbal

behavior

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Unit of Analysis

- The unit of analysis of verbal behavior is the functional relation between a type of responding and the same variables that control nonverbal behavior.

  i.e. Motivation, consequences,

Skinner referred to these units as the verbal operants.

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Verbal Operants

- Operant implies a type or class of behavior as distinct from a particular environmental variables.

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Typical Development of Language

At 18 to 24 months a child can….
- follow two-step directions
- point to parts of the body
- attempt multi-syllable words
- speak three-word sentences
- ask two-word questions

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Typical Development of Language

- hum and sing
- express pain verbally
- have 50 to 70 percent of their speech understood by outsiders

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Language

Looking at all the different functions that language serves for children it is important that we understand the functions and how to teach them.

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Six Elementary Verbal Operants

- Mand
- Tact
- Echoic
- Intraverbal
- Textual
- Transcription

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Let's break down the Operants....
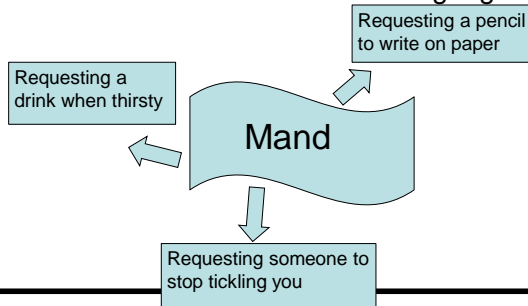

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Mand

- Type of verbal operant in which the speaker asks for what he needs or wants

- Derived from words such as command, demand, and countermand.

- Mand is under control of motivation

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Mand

- Mands are appropriate for the early development of language and for the interaction between children and adults.

- Mands are the first verbal operant acquired by a child

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Behavioral Classification of Language

Requesting a pencil to write on paper

Requesting a drink when thirsty

Mand

Requesting someone to stop tickling you

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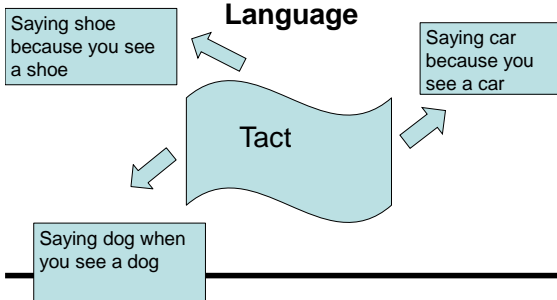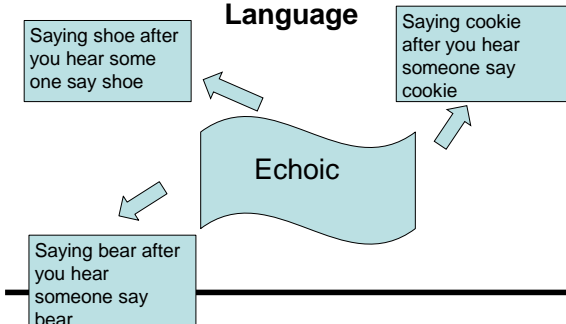
Tact

- Type of verbal operant in which the speaker names things and actions that the speaker has direct contact with through any of the sense modes.

- Skinner selected the the term tact because it suggests making contact with the environment
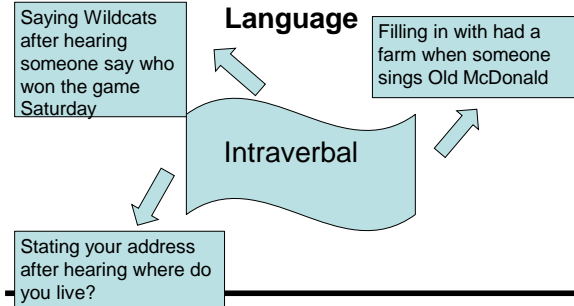
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Behavioral Classification of Language

Saying shoe because you see a shoe

Saying car because you see a car

Tact

Saying dog when you see a dog

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Echoic

- A type of verbal operant that occurs when a speaker repeats the verbal behavior of another person.

- The ability to echo phonemes and words of others is essential in learning to identify objects and actions

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Behavioral Classification of Language

Saying shoe after you hear some one say shoe

Saying cookie after you hear someone say cookie

Echoic

Saying bear after you hear someone say bear

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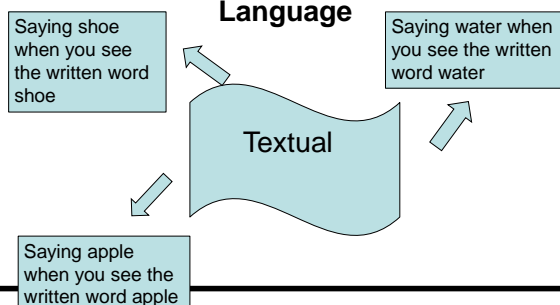**LOUISVILLE.**

Intraverbal

- The type of verbal operant in which a speaker differentially responds to the verbal behavior of others.

- Typically developing children develop a high frequency of intraverbal responses in the form of singing songs, telling stories, and describing activities

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Behavioral Classification of Language

Saying Wildcats after hearing someone say who won the game Saturday

Filling in with had a farm when someone sings Old McDonald

Intraverbal

Stating your address after hearing where do you live?

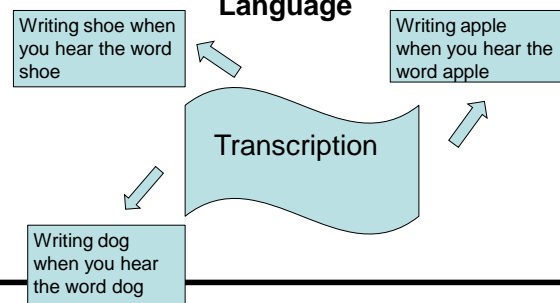
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Textual

- A type of verbal operant that has point to point correspondence, between the stimulus and the response product.

- Textual does not define the understanding of the written word. That is typically described as reading comprehension

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Behavioral Classification of Language

Saying shoe when you see the written word shoe

Saying water when you see the written word water

Textual

Saying apple when you see the written word apple

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Transcription

- A type of verbal operant in which the verbal stimulus controls a written, typed, or finger-spelled response.

- Skinner referred to this behavior as taking dictation.

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Behavioral Classification of Language

Writing shoe when you hear the word shoe

Writing apple when you hear the word apple

Transcription

Writing dog when you hear the word dog

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Verbal Operants

- The Verbal Operants look at the different functions of language
- For individuals who have a language delay we need to teach them that language is functional.
- Therefore, setting up programs that concentrate on the functions of language will help to develop verbal behavior more efficiently

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How do we implement Verbal Behavior?

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Language Intervention

- Skinner's analysis suggests that a complete verbal repertoire is composed of each of the elementary verbal operants.

- The elementary operants develop a base for more advanced language behavior

» (Cooper, 2007)

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Motivation

- In verbal behavior we look at language based upon the function it serves.
- Since each of these different operants serve a function individuals have to be motivated in order to communicate.

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Motivation

- In order for individuals to mand, tact, echo, etc. there has to be a motivation.
- With individuals on the spectrum we often have to contrive this motivation
  - Deprivation- withholding access to reinforcement for a period of time.

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Motivation

How do we begin to understand what motivates an individual?

Preference Assessments
Reinforcer Checklists

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Preference Assessments

- It is often difficult for individuals on the autism spectrum to effectively communicate preferences.
- Therefore it is important that as we allow them to indicate these preferences when possible.
- The best way is through preference assessments

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Preference Assessments

- Preferences, like reinforcers can change with age, options, and satiation.
- Research has shown that increasing choice-making opportunities is associated with increases in appropriate behavior and decreases in inappropriate behavior.

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Preference Assessments

- We will discuss one type in detail

  - Multiple Stimulus without removal (MSWO)

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Multiple Stimulus without Removal

- Directions
  - An array of items are collected and listed on the data sheet
  - The items may be placed on a large tray
  - Lay the items in a straight line on the tray
  - Instruct the student to "pick one"
  - Immediately after the selection, remove the remainder items to prevent multiple selections. Place a "1" by the item selected.

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Multiple Stimulus without Removal (MSWO)

  - Do not remove the item that was selected and rotate all the items
  - Continue this process until the student does not select an item within 30 seconds.

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MSWO

- If an item is not selected it receives a 5.
- Complete the process three times.
- Add the numbers in the column for each item
- Rank the items with the lowest total ranked as one.

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Reinforcer Assessment

- Lists reinforcers that can be either be checked off or written to help others determine potential reinforcers for that individual.

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Reinforcer Assessment

May break down reinforcers into categories
Such as:

1. sensory
2. tangible
3. social
4. activity

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Reinforcement

- A stimulus change immediately follows a response and increases the future frequency of that type of behavior in similar conditions.

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Reinforcement

Most important and widely applied principle of behavior analysis.

Fundamental building block for the selection of operant behavior.

*Reinforcement theory states that reinforced behavior will be repeated, and behavior that is not reinforced is less likely to be repeated

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Positive Reinforcement

Positive reinforcement – when a response is followed immediately by the presentation of a stimulus, and as a result similar responses occur more frequently.

(Cooper and Heron, 2007)

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Example of Positive Reinforcement

Johnny eats his peas at dinner. His mother gives him a gummy bear. The next time Johnny has peas on his plate he eats all his peas.

(Cooper and Heron, 2007)

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Example of Positive Reinforcement

Video

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Negative Reinforcement

Negative reinforcement – the occurrence of a response produces the removal, termination, reduction, or postponement of a stimulus, which leads to an increase in the future occurrence of that response.
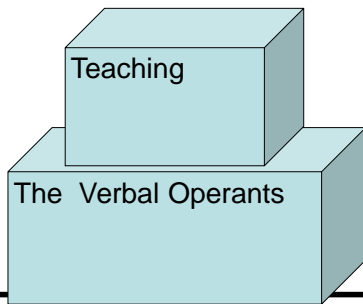
(Cooper and Heron, 2007)

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Example of Negative Reinforcement

Loud buzz in some cars when ignition key is turned on; driver must put on safety belt in order to eliminate irritating buzz

(Cooper and Heron, 2007)

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Teaching

The Verbal Operants

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Teaching the mand

- Mands are the first verbal operant acquired by by a human child.
- They usually occur in the form of crying when a child is hungry, tired, in pain, cold, wants toy, afraid, etc.
- Typically developing children quickly learn to replace crying

(Cooper and Heron, 2007)

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Mand Training

- Manding not only lets children control the delivery of reinforcers, but it begins to establish the speaker and listener roles that are essential for further verbal development.
- Manding is the only type of verbal behavior that benefits the speaker.
- Meaning the mand gets the speaker reinforcers.

(Cooper and Heron, 2007)

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Mand Training

- It is important that mand training occurs throughout the day for individuals on the autism spectrum.
- This will include contriving situations and providing opportunities for these mands to occur.

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Mand Training

– Video

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Contriving Opportunities

- For example, Mickey loves vacuums and everyday after school he rushes to the hall closet to look at the vacuum.
- To contrive a mand for the vacuum you place the vacuum in another location. When he arrives prompt the mand for vacuum.

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Contriving Opportunities

- Sally always comes into the playroom to grab the ball out of the toy box. You place the ball on the top shelf where Sally cannot reach it.
- You have now contrived the opportunity for multiple mand responses.

Examples; help, ball, where is it, which shelf,etc.

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Pivotal Response Training (PRT)

- A naturalistic, behavioral training approach based on the principles of ABA to help train and treat individuals with autism.
- Basic premise behind PRT is to use the child's natural environment to create learning situations that result in improved social and communication skills.

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PRT

- Research proves that there are four key "pivotal" behaviors
- Pivotal behaviors are those that when mastered, evoke positive changes that are widespread across a broad spectrum of other important behaviors.

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PRT

- Four key "pivotal" behaviors

  – Being responsive to multiple cues
  – Motivation
  – Self-management
  – Self-initiation

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PRT

- Reinforcement of approximations/ attempts
- Reinforcement has a specific relationship to the desired behavior natural reinforcement ("ball" gets ball, not praise. Child chooses object for instruction and that object is used. This is done to increase motivation)

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Example of PRT

- 1. find a activity that the child is motivated by (example swinging)
- 2. Prompt the child for that response so the teacher can evoke the desired behavior (pushing them on the swing)
- 3. if the child evokes the correct response "swing" then push them on the swing
- 4. if the child does not give the desired response then ask again until its achieved.

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Example of PRT

» Video

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Echoic Training

- The first goal of echoic training is to teach the child to repeat words and phrases emitted by parents or teachers when they are told to do so.
- Once echoic control is established, you then begin to establish a generalized repertoire in which the child can repeat novel words and combinations.

» (Cooper, 2007)

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Echoic Training

- Children with low frequency of vocal behaviors may have difficulty establishing echoic control.
- In this case you may have to directly reinforce all vocal behaviors.

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Echoic

– Video

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In conclusion

- This presentation did not include how to teach all verbal operants
- Teaching the mand and echoic are imperative to developing language in individuals on the autism spectrum
- Once the mand and echoic are developed language can be expanded.
- Language is the basis for teaching those more distinguished verbal operants

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Thank you

Your contact info!

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Questions????

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