

Echolalia

Celia Kaufer 11/8/19

Overview

Background

Research

Conclusions



Review Article

Examining the Echolalia Literature: Where Do Speech-Language Pathologists Stand?

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Purpose: Echolalia is a common element in the communication of individuals with autism spectrum disorders. Recent contributions to the literature reflect significant disagreement regarding how echolalia should be defined, understood, and managed. The purpose of this review article is to give speech-language pathologists and others a comprehensive view of the available perspectives on echolalia.

Method: Published literature from the disciplines of behavioral intervention, linguistics, and speech-language intervention is

discussed. Special areas of focus include operational definitions, rationales associated with various approaches, specific procedures used to treat or study echolalic behavior, and reported conclusions.

Conclusions: Dissimilarities in the definition and understanding of echolalia have led to vastly different approaches to management. Evidence-based practice protocols are available to guide speech-language interventionists in their work with individuals with autism spectrum disorders.

Background: What is echolalia?



- Repetitions of verbalizations (many different definitions)
- Delayed vs. Immediate
 - Immediate: individual repeats what he/she just heard (within two conversational turns)
 - Delayed: individual repeats what they heard more than 2 conversational turns (and higher level of linguistic complexity or learned routine)
- Echolalia vs. Vocal Stereotypy
 - Verbalizations → Echolalia
 - Vocalizations (non-linguistic) → Vocal Stereotypy
 - Examples of vocalizations: humming, squealing, yelling
 - *This distinction complicates research*
- *Echolalia is a normal part of language development!*
 - Typical until ~30 months of age

What are socially acceptable ways to repeat what you hear?

- Confirm understanding/acknowledging
 - *Meeting at 9am in 302*
- Conversational turn taking
 - *You ran five miles this weekend!*
- Quotations from movies, tv, comedy, idioms



Research: Gestalt Processing

- **Blanc 2012: Some children with autism are gestalt processors**
- Gestalt processing: the individual is processing *larger quantities* of information before isolating smaller units of language
 - Example: "Iwantbathroomplease"
 - Vs. analytic processing style
 - Can think of echolalia as a delay, not a disorder
 - Echolalia may be a bridge to self-generated utterances
 - Once smaller units of language are learned, they can reorganize/combine them to produce original sentences
- Is motor development a factor?

Research: Functions of Echolalia

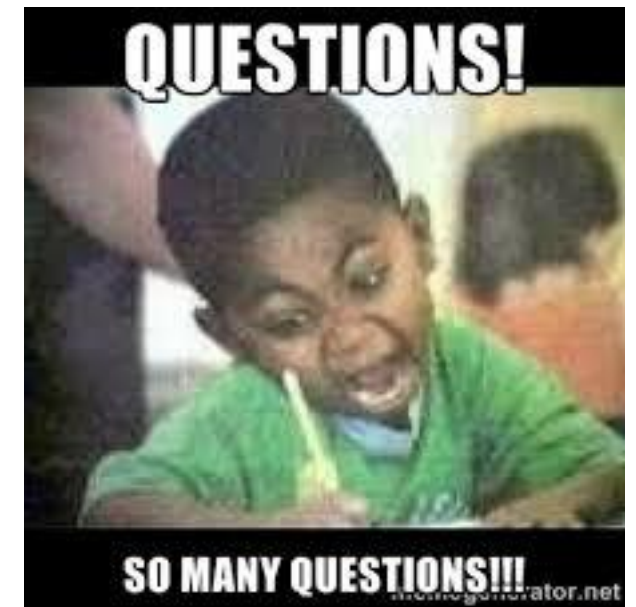
Immediate Echolalia: Interactive	Delayed Echolalia: Interactive	Immediate Echolalia: Non-interactive	Delayed Echolalia: Non-interactive
Turn taking	Turn taking		
Declarative	Verbal completion	Non-focused	Non-focused
Yes answer	Labeling	rehearsal	Situation association
Request	Providing information		
	Calling	Self-regulatory	rehearsal
	Affirmation		
	Request		Self-directive
	Protest		
	Directive		Non-interactive labeling

- Example: "Iwantbathroomplease"
 - Functions: requesting bathroom, requesting recess, protesting an activity, expressing feeling

Conclusions: interventions targeting abating echolalia may be overlooking important communicative and cognitive functions. (Prizant and Duchan, 1981)

Research: Interaction Styles

- Rydell & Mirenda 1994: interaction styles
 - High constraint utterances: wh-questions, commands, prompts
 - Pressure to respond in a certain way
 - Low constraint utterances: comments, affirmations, reflective questions
 - No pressure to respond in a certain way
 - Results: majority of immediate echolalia following high-constraint utterances
 - → Takeaway: Use low-constraint utterances when targeting initiations for the purposes of commenting and requesting information



Linguistic Analysis Studies: Observational Research

- There have been many single case studies that examined different causes and functions of echolalia. Remember, we are unable to make generalizations based on single case studies
- Echolalia was observed to be used as a way of acknowledging during conversation when the individual was unable to quickly formulate a response (Local & Wootton, 1995)
- Echolalia was used when tension building during nonpreferred tasks (Sterponi and Shankey, 2014)
- Echolalia was often paired with gaze or eye contact, sign of social interaction (Tarplee and Barrow, 1999)
- Important for the social-emotional attachment and relationships

Research: Vocal Stereotypy (VS)

- Vocal Stereotypy (VS) research often includes echolalia
 - Most behavioral-based research is about extinguishing VS
 - Takeaway: Collaboration is key! Suggestions we as SLPs can provide:
 - Can we figure out a communicative function and subsequent replacement?
 - Can we teach rules of a target situation (e.g., in the library vs. playground)
 - What are our communicative options? (e.g., whispering, gestures, etc.)
 - Can we help with regulation? (e.g., comfort object)

0	Quiet: No Voice (Fire Drills, Lines)	
1	Whisper Voice (Library or Quiet Spaces)	
2	Quiet Voice Inside voice / Private Conversation	
3	Talking Voice Inside Voice / Public Conversation	
4	Loud Voice Outside / Sports Game	
5	Yelling / Shouting To get help in an emergency	

Research: Management

Blanc 2012: Natural Language Acquisition (NLA) Approach

- Mitigation (extracting smaller units) is delayed in children with echolalia
- Need to analyze language to determine “stage”
- Meet each individual at their stage of development

Stage	Language Examples	
1: Communicative use of language <i>gestalts</i>	"Let's get out of here!"	"Want some more?"
2: <i>Mitigation</i> into: (a) chunks and (b) recombining	(a) "Let's get + out of here!" "Want + some more?"	(b) "Let's get some more!" "Want out of here?"
3: <i>Isolation</i> of single words and generation of two-word phrases	"Get...more."	"Want...out?"
4: <i>Generation</i> of more complex sentences	"I got more."	"I wanna go out."

“Perhaps the key element of NLA intervention is the modeling of gestalts that an individual is likely to find useful and be able to quickly mitigate.”

Great Handouts on NLA:

<http://www.communicationdevelopmentcenter.com/articles/echolaliaonthespectrum.pdf>

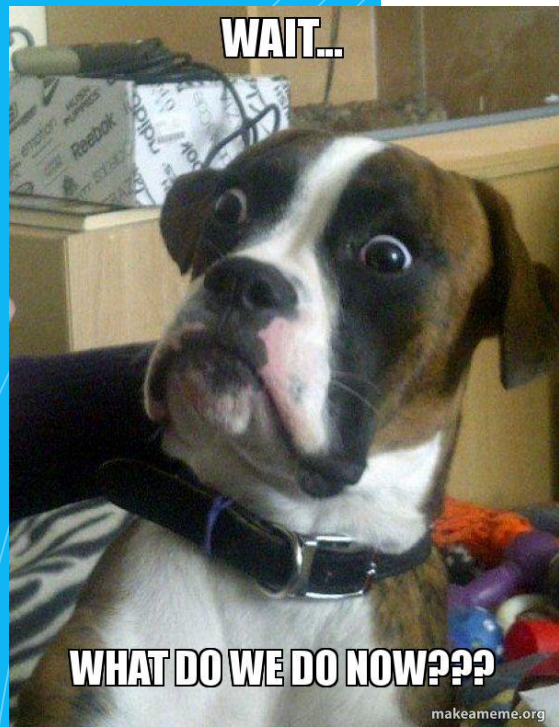
<http://www.communicationdevelopmentcenter.com/articles/2.Supplementssummary.pdf>

https://docs.wixstatic.com/ugd/e335fb_63377a77e6284eac92986dec7b046e94.pdf

Conclusions for intervention

Echolalia can be seen as a bridge towards future meaningful, self-generated communication!!





Conclusions for intervention

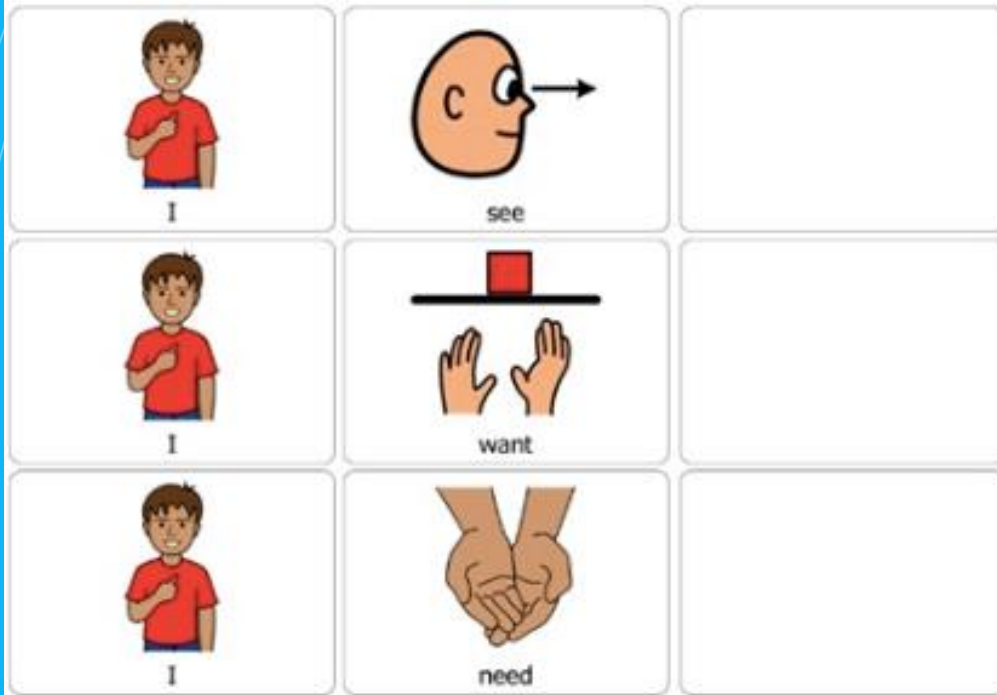
- **Assess comprehension and underlying functions**
 - Language Samples
 - Use this information to determine targets and appropriate gestalts
 - Look for nonverbal cues- does eye gaze, body positioning, or gestures change?
 - Look for changes to communication setting or partners
- **Encourage initiation of communication and use low-constraint interaction styles**
 - Reduce: questions, prompts, commands
 - Increase: comments, affirmations, reflections

Conclusions for intervention

- ***Teach appropriate gestalts that can be used as building blocks***
 - Pick gestalts that the child understands and would be useful for them to combine (e.g., “let’s get,” “want some”)
 - Use motivating and preferred activities
 - Try not to teach rote/inflexible scripts that are not true symbolic communication (e.g., “Can I please use the bathroom?”)



Conclusions for intervention



- Practice generalizing across settings and communication partners
 - Encourage social closeness with family or other communication partners
- Collaborate for specialized situations
 - Explain why abatement treatments may not be worthwhile
- Multi-modal cues!
- Map language onto concepts they know
 - Use predictable and enjoyable joint action routines

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