

Echolalia: A language-based approach to intervention

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1

Disclosure Slides

- LEE ROBINSON, MS, CCC-SLP IS THE SPEECH AND LANGUAGE CLINIC DIRECTOR IN THE DEPARTMENT OF COMMUNICATION DISORDERS, MCKAY SCHOOL OF EDUCATION, BRIGHAM YOUNG UNIVERSITY.
 - **Financial:**
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 - Program Committee 2021

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2

Overview

- ECHOLALIA; DEFINITIONS AND EXAMPLES
- COMPETING VIEWS IN THE LITERATURE
- THE GESTALT PATTERN OF LANGUAGE ACQUISITION
- EVIDENCE-BASED STRATEGIES FOR FACILITATING THE TRANSITION FROM ECHOLALIA TO SELF-GENERATED LANGUAGE

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3

ECHOLALIA DEFINITIONS AND EXAMPLES

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WHEN YOU HEAR THE TERM "ECHOLALIA,"
WHAT DO YOU THINK OF?

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5

YouTube example of echolalia

- POSSIBLE EXAMPLE CHILD SAYS 7 OVER AND OVER AGAIN
- [HTTPS://WWW.YOUTUBE.COM/WATCH?V=FKgVTo1AN4](https://www.youtube.com/watch?v=FKgVTo1AN4)

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6

As with most characteristics of ASD, it's an issue of frequency and intensity

EVERYONE ECHOES SOMETIMES
WE ALL REPEAT UTTERANCES THAT WERE ORIGINALLY SAID BY OTHERS

Ever use a movie line to be funny or make a point?
"we're gonna need a bigger boat!"

Find yourself saying the same thing to your kids that your parents use to say to you?
"because I said so..." "be home by..."

Stiegler, 2019 **BYU**

7

As with most characteristics of ASD, it's an issue of frequency and intensity

ARE THERE PHRASES ANY CHILD MIGHT SAY MANY TIMES IN THE COURSE OF A DAY, WEEK, MONTH, ETC.?

Pretend play
Daily routines such as mealtime, bath time, bedtime, etc.
Quotes
Sayings lines in a play, movie or book
Backchanneling

The language we use in therapy and our intended impact on the client
I want more please...

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8

In Children with ASD, echolalia characteristics include

IMMEDIATE OR DELAYED

Immediate-repeating back what has just been heard
Adult: Do you want a cookie?
Child: Do you want a cookie?

Delayed-using a phrase heard earlier (hours, days, months)
Adult: Do you want a cookie?
Child: "to infinity and beyond!"

PURE
Unchanged

Immediate/delayed and pure can be functional

Stiegler, 2015, 2019 **BYU**

9

In Children with ASD, echolalia characteristics include

MITIGATED

Changed in some way to create meaning, generative or more self generative language

"To infinity and beyond" becomes "to bath time and beyond"

FUNCTIONAL FOR COMMUNICATION
FUNCTIONAL FOR COGNITION
FUNCTIONAL FOR SELF-REGULATION

Stiegler, 2015, 2019 **BYU**

10

COMPETING VIEWS IN THE LITERATURE

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11

Clinical SLPs may be surprised to learn that

"...THERE IS A LONG TRADITION OF BEHAVIORAL INVESTIGATIONS AND PRACTICES FOCUSED ON THE EXTINCTION OR REDUCTION OF ECHOLALIA; THIS LINE OF RESEARCH IS BURGEONING TODAY."

Stiegler, 2015 **BYU**

12

Treatment of Echolalia in Individuals with ASD: a Systematic Review

- SYSTEMATIC REVIEW
- 11 STUDIES
- 9 STUDIES SUCCESSFULLY REDUCED ECHOLALIA IN 17 PARTICIPANTS
- 6 OF THE 9 STUDIES MET HIGHEST LEVEL OF CERTAINTY OR CONCLUSIVE RESULTS
- "ALTHOUGH NO SINGLE TREATMENT PACKAGE CAN BE DESCRIBED AS WELL-ESTABLISHED EVIDENCE-BASED PRACTICE, ALL 11 STUDIES INVOLVED BEHAVIOR ANALYTIC INTERVENTION COMPONENTS, SUGGESTING STRONG SUPPORT FOR OPERANT-BASED TREATMENTS.

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13

Treatment of Echolalia in Individuals with ASD: a Systematic Review

- IN PARTICULAR, BEHAVIOR ANALYTIC INTERVENTIONS DEMONSTRATING CONCLUSIVE LEVELS LEVELS OF EVIDENCE INCLUDED
 - cues-pause-point
 - differential reinforcement of lower rates of behavior
 - script training plus visual cues
 - verbal modeling plus positive reinforcement for appropriate responses."

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14

Clinical SLPs may be surprised to learn that

"...INTERACTIONAL LINGUISTS HAVE RECENTLY APPLIED THE CONVENTIONS OF CONVERSATION ANALYSIS (AKA: DISCOURSE ANALYSIS) TO TRANSCRIPTS THAT INCLUDE ECHOLALIA...(THIS) DATA ANALYSES REVEALED IMPORTANT INSIGHTS, PATTERNS, AND CHARACTERIZATIONS OF ECHOLALIA AS

*A KEY COMMUNICATIVE ADAPTATION (FUNCTIONAL),
A COGNITIVE TOOL,
AND A SELF-REGULATORY TOOL."*

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15

a key communicative adaptation (functional)

REQUESTS
 "YES" ANSWER
 DIRECTIVE
 CALLING
 AFFIRMING
 PROTESTING
 LABELING
 PROVIDING INFORMATION
 VERBAL COMPLETION
 TURN TAKING
 MIGHT BE OTHERS OUT THERE?

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16

IF ECHOLALIA IS *FUNCTIONAL* LANGUAGE, THEN INTERVENTIONIST CAN USE ECHOLALIA TO PROMOTE GENERATIVE LANGUAGE DEVELOPMENT

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17

Cognitive functions of echolalia

REHEARSAL
 MEMORY ASSIST
 SELF-DIRECTIVE
 OTHER?

- ASK AN AUTISTIC #18
- 6 MINUTES IN TALKS ABOUT DELAYED ECHOLALIA AND HOW SHE USES IT TO HELP HER FUNCTION
- [HTTPS://WWW.YOUTUBE.COM/WATCH?V=OMF-05IHTBo](https://www.youtube.com/watch?v=OMF-05IHTBo)

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18

Self-regulatory function of Echolalia

SELF-REGULATION IS A GOOD THING

DO NOT WANT TO TAKE SELF REGULATION BEHAVIORS, INCLUDING ECHOLALIA, AWAY FROM A CHILD WITH ASD

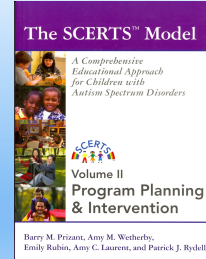
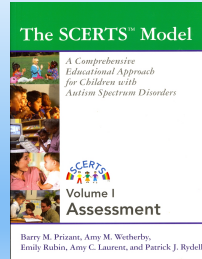
ENHANCE OR MAKE IT MORE APPROPRIATE

Prizant, Wetherby, Rubin, Laurent, Rydell, 2006



19

SCERTS Model



Prizant, Wetherby, Rubin, Laurent, Rydell, 2006



20

Where Do SLP Stand?

"WHAT ARE THE BEST CLINICAL PRACTICES ASSOCIATED WITH ECHOLALIA, AND ARE THEY EVIDENCE BASED?"

"DO SLPs CONCEPTUALIZE ECHOLALIA AS A FUNCTIONAL ADAPTATION THAT REFLECTS A GESTALT LEARNING STYLE AND LEADS TO MORE GENERATIVE COMMUNICATION IN PEOPLE WITH ASD-

...OR IS ECHOLALIA VIEWED AS A MALADAPTIVE, FUNCTIONLESS BEHAVIOR THAT SHOULD BE EXTINGUISHED OR DECREASED?"

Stiegler, 2015 https://doi.org/10.1044/2015_AISL-D-14-0166



21

Stiegler Concludes

"TAKEN AS A WHOLE, THE LITERATURE YIELDED THE FOLLOWING SUMMARY SET OF [9] PRINCIPLES DERIVED FROM RESEARCH EVIDENCE THAT CAN BE USED BY CLINICIANS AS A FRAMEWORK FOR RESPONDING TO ECHOLALIA IN INTERVENTION:



22

9 principles

1. FACILITATE VERBAL INITIATIONS.
2. CAREFULLY OBSERVE TO ASSESS COMPREHENSION, DISCERN UNDERLYING FUNCTIONS, AND WATCH FOR MITIGATIONS.
3. FACILITATE LOW-CONSTRAINT INTERACTION STYLES AMONG COMMUNICATION PARTNERS.

Stiegler, 2015



23

9 principles

4. MAP LANGUAGE ONTO CONCEPTS THE INDIVIDUAL ALREADY UNDERSTANDS.
5. AVOID TEACHING A ROTE SET OF "FUNCTIONAL" OR "SURVIVAL" UTTERANCES.
6. MODEL USEFUL GESTALTS FOR THE INDIVIDUAL TO "BORROW."

Stiegler, 2015



24

9 principles

7. PROVIDE MANY OPPORTUNITIES TO PRACTICE, ESPECIALLY WITH PEERS.

8. CONSIDER USING ADAPTED BEHAVIORAL METHODOLOGIES TO TEACH QUIET BEHAVIOR IN SPECIALIZED SITUATIONS.

9. IDENTIFY, PRESERVE, AND STRENGTHEN PATTERNS OF SOCIAL CLOSENESS AND AFFILIATION ASSOCIATED WITH ECHOLALIA.

Stiegler, 2015 **BYU**

25

ASHA Position

Echolalia and Its Role in Gestalt Language Acquisition

Echolalia is the repetition of utterances produced by others. There are two types of echolalia—immediate and delayed.

- **Immediate echolalia** refers to utterances that are repeated immediately or after a brief delay.
- **Delayed echolalia** refers to utterances that are repeated after a significant delay (Prizant & Rydell, 1984). Echolalia is prevalent among individuals with ASD who are verbal and may remain as part of their verbal behavior for some time (Fay, 1969).

Historically, echolalia has been described as meaningless and without communicative function. However, a growing body of research has identified various communicative functions of echolalia (e.g., turn-taking, labeling, requesting, affirming, and protesting) and has suggested its role in gestalt language acquisition (Prizant, 1982, 1983; Prizant & Duchan, 1981; Prizant & Rydell, 1984; Stiegler, 2015).

<https://www.asha.org/practice-normal/clinical-topics/autism/echolalia-and-its-role-in-gestalt-language/> **BYU**

26

ASHA Position

“...SLPS SHOULD TAKE A *LEADERSHIP ROLE* IN ENSURING THAT INDIVIDUALS WITH ASD *DEVELOP A FUNCTIONAL COMMUNICATION SYSTEM* THAT ALLOWS FOR OPTIMAL SOCIAL AND EDUCATIONAL EXPERIENCES AND PROMOTES INDEPENDENCE AND SELF-ADVOCACY (ASHA, 2006).

THEREFORE, *CLINICIANS MUST BE AWARE OF EXISTING GUIDELINES FOR ADDRESSING ECHOLALIA* WITHIN COMMUNICATIVE TREATMENT CONTEXTS

Stiegler, 2015 **BYU**

27

ASHA Position

IN ADDITION, ASHA EMPHASIZES THAT INDIVIDUALS WITH ASD AND ALL COLLABORATING PARTNERS (E.G., SLPS, FAMILY MEMBERS, OTHER PROFESSIONALS, PEERS) MUST WORK TOGETHER TO *EXTEND COMMUNICATION PRACTICE BEYOND INDIVIDUAL INSTRUCTION OR THERAPY SETTINGS AND INTO ALL PHASES OF DAILY LIFE* (ASHA, 2006).

SLP CLINICIANS AND RESEARCHERS HAVE PROVIDED USEFUL IDEAS AND MATERIALS FOR ASSESSMENT AND INTERVENTION.”

Stiegler, 2015 **BYU**

28

THE GESTALT PATTERN OF LANGUAGE ACQUISITION

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Gestalt language learners or language processors

GESTALT DEFINED:
AN ORGANIZED WHOLE THAT IS PERCEIVED AS MORE THAN THE SUM OF ITS PARTS

IN LANGUAGE ACQUISITION TERMS:
RATHER THAN BREAKING WORDS AND UTTERANCES DOWN INTO THE PARTS (PHONEMES, MORPHEMES, SENTENCE SEGMENTATION),
CHILDREN WITH ASD PROCESS LARGE CHUNKS OF LANGUAGE

Stiegler, 2015, 2019, Blanc, 2012, Prizant, 1983 **BYU**

30

Return to our roots for a moment

TYPICAL LANGUAGE ACQUISITION BEGINS WITH UNITS OF LANGUAGE CAPTURED FROM THE ONGOING SPEECH STREAM

Some children are analytic processors, and their units are small: WORDS

Some children are gestalt processors, and their units are large, intonationally defined strings: GESTALTS

Many children with ASD seem to be gestalt processors

Peters, 1983; Prizant et al, 2006 **BYU**

31

<p>“word babies” (Analytic Processors)</p> <p>Focus on referential use of utterances (i.e., labeling objects) and semantic relationships of language</p> <p>Basic units of language are single words</p> <p>Language use is generalized to relevant objects and events quickly</p> <p>Language is productive and generative early on in the language acquisition process</p>	<p>“intonation babies” (Gestalt Processors)</p> <p>Focus on intonation and social interaction structure of language</p> <p>Basic units of language may be words, phrases, and/or complete sentences</p> <p>Language use remains specific to situational contexts for longer periods of time</p> <p>Language is relatively inflexible in the early stages</p>
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Prizant (1983), Stiegler, 2019 **BYU**

32

<p>“Word Babies” (Analytic Processors)</p> <p>Early language acquisition moves from single words to two- and three-word utterances</p> <p>Rule induction of language forms allows for increased grammatical complexity</p>	<p>“Intonation Babies” (Gestalt Processors)</p> <p>Early language acquisition involves multiword phrases functioning as single words</p> <p>Increased language complexity is achieved through re-combinations of established gestalts</p>
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Prizant (1983) Stiegler, 2019 **BYU**

33

As SLPs do we have a bias?

WE MAY HAVE A BIAS THAT ANALYTIC PROCESSING IS “TYPICAL” AND THAT GESTALT PROCESSING OCCURS ONLY IN CHILDREN WITH DELAYS/DISORDERS

GESTALT LANGUAGE LEARNING MAY SIMPLY BE ANOTHER WAY OF DEVELOPING LANGUAGE

GESTALT LANGUAGE LEARNER BENEFIT FROM OUR SERVICES

Stiegler, 2019, Blanc, 2016 **BYU**

34

Language: 3 components

Adapted from Bloom & Lahey’s taxonomy of language (1988), Cabbage (2018) **BYU**

35

Intelligible speech production

<p>Analytic processors may be more intelligible and thus seem to speak earlier</p>	<p>Gestalt processors may be less intelligible for an extended period</p> <ul style="list-style-type: none"> • produce longer units that are much harder to articulate
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Blanc, 2012; Peters, 1983 **BYU**

36

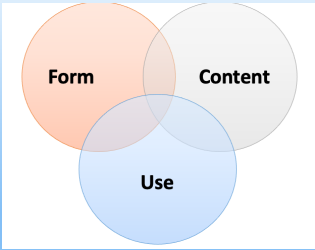
Characteristics of gestalt or echolalia language:

Form: lack of generative utterances

Content: not conventional

Use: challenging because the listener must understand the context of the gestalt, where it came from

Shaka and the walls fell
Timba his arms open wide...



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Darmok and Jalad at Tanagra - S5E02 Star Trek The Next Generation

The Tamarians communicate in language using metaphor, imagery and emotion

Shaka when the walls fell
Timba his arms open wide
Darmok and Jalad at Tanagra
Darmok and Jalad on the ocean
His eyes uncovered!
Picard and Dathan at El Adrille

In order to understand the language, one must understand the stories and experiences of the Tamarians

<https://www.youtube.com/watch?v=aBb-AfDm8E>

Illustration of how hard it must be to understand delayed echolalia without a context

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38

To achieve generative language

GESTALT PROCESSORS MUST:
gradually break down their long units into smaller units, and finally into words
begin to build word combinations
similar to analytical peers

CHALLENGE:
BREAKING DOWN GESTALTS (IMMEDIATE OR DELAYED ECHOES),
THE CHUNKS OF PHRASES CAN BE EXTREMELY LONG AND DIFFICULT TO BREAK DOWN
IT DOES TAKE LONGER FOR GESTALT LEARNERS TO LEARN LANGUAGE THAT IS GENERATIVE

Stiegler, 2019

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39

To achieve generative language

DEVELOPMENTAL SEQUENCE IN GESTALT LANGUAGE LEARNERS
breaking down gestalts
re assembling gestalts in generative ways
results in more effective communication

IDENTIFYING THE STAGE THE GESTALT LEARNER IS IN
LEADS TO APPROPRIATE INTERVENTIONS

Stiegler, 2019

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40

Table 3. The six stages of natural language acquisition. for gestalt language learners

Stage	Examples
1. Communicative use of whole language gestalts	"Let's get out of here." "Want some more?"
2 - A. Mitigation into chunks	(1) "Let's get" + "out of here"
2 - B. Recombining these chunks	(2) "Want" + "some more?" (1) "Let's get" + "some more?" (2) "Want" + "out of here?" "Get - more."
3. Further mitigation: isolation of single words, recombination of words, and generation of original two-word phrases	"Want - out?" "I got more."
4. Generation of first sentences	"I wanna go out."
5. Generation of more complex sentences	"I don't want any more, but you can have mine."
6. Generation of the most complex sentences	"How long do you wanna play outside?" "Do I really have to go out to play today?" "How 'bout if you go out and play instead?"

Note. Adapted with permission of Marge Blanc, copyright owner. Originally published in *Natural Language Acquisition on the Autism Spectrum: The Journey from Echolalia to Self-Generated Language*, Madison, WI: Communication Development Center, p. 23.

Stiegler, 2019, Blanc, 2012

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41

Characteristics of Stage 1 Utterances

ENTIRE MULTI-WORD GESTALTS LIFTED FROM ELSEWHERE
NOT FLEXIBLE; CAN BE VERY LONG!
SHOULD NOT BE TAKEN LITERALLY BY LISTENERS
CAN BE MEANINGFUL AND FUNCTIONAL,
BUT THEY ARE RARELY AN EXACT FIT FOR WHAT THE PERSON WOULD LIKE TO SAY

TAKES TIME, EFFORT, AND FAMILIARITY TO FIGURE OUT THE SOURCE OF THE GESTALT AND WHAT IT MIGHT MEAN
WE CAN HELP BY OFFERING USEFUL GESTALTS THAT ARE EASER TO MANAGE

Stiegler, 2019

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42

Examples

FROM DISNEY CARTOON MOVIE
THE LION KING

“who do you think you are?”

Child uses the phrase when people, events, objects are unfamiliar to them, expression of unease (possible anxiety)

PHRASE FROM A CARTOON WHERE THE
TRACTOR HAS A FLAT TIRE AND IS STICK

“the tractor has a flat tire!”

Child uses the phrase when stickers are stuck on the page and the child cannot pull them off

Stiegler, 2019

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43

Interesting note re Stage 1 and adulthood

SOMETIMES PEOPLE WITH ASD STILL USE STAGE 1 GESTALTS IN ADULTHOOD, WHICH OFTEN ALLOWS THEM TO PARTICIPATE MORE FULLY IN SOCIAL INTERACTIONS

FAMILIES GENERALLY APPRECIATE THE COMMUNICATIVE ATTEMPTS OF GESTALTS IN ADULTHOOD

Interpreted as the person with ASD wanting to participate in the conversation

Stiegler, 2019

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44

Characteristics of Stage 2 Utterances

MITIGATIONS: FINDING AND SEPARATING OUT SMALLER CHUNKS THAT ARE COMMON ACROSS GESTALTS

THE PERSON MAY BE WORKING ON MANY MITIGATIONS AT ONCE

THE MIX-AND-MATCH STAGE
less rigid and more original than stage 1
no evidence of generative syntax

Stiegler, 2019

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45

Characteristics of Stage 2 Utterances

WE HAVE SOME CONTROL OVER THE SMALLER PHRASES THE CHILD WILL DISCOVER

easier to mitigate phrases picked up by people
movie phrases are much harder to mitigate

WE CAN PRESENT EVERYDAY LANGUAGE IN EXCITING WAYS

Children more likely to pick up on everyday language phrases that are associated with emotional contexts

NATURAL PROCESS

supported by SLPs, teachers, parents/family

Stiegler, 2019

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46

Present everyday language in exciting ways

CHILDREN MORE LIKELY TO PICK UP ON EVERYDAY LANGUAGE PHRASES THAT ARE ASSOCIATED WITH EMOTIONAL CONTEXTS

STAGE 2 EXAMPLE

PARENT REPEATING “DON’T WORRY, YOU’LL FIND YOUR COAT” TO REPLACE OR OFFERED AS AN ALTERNATIVE TO THE “DON’T WORRY” PHRASE FROM DORA THE EXPLORER WHILE USING A CALM AND REASSURING VOICE AND/OR UPBEAT AND OPTIMISTIC TONE

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47

Characteristics of Stage 3 Utterances

MORE MITIGATION INTO SINGLE WORDS, COMBINING THESE WORDS INTO TWO-WORD CONSTRUCTIONS

THESE ARE VERY SIMILAR TO THE TWO-WORD COMBINATIONS THAT ANALYTICAL PROCESSORS PRODUCE MUCH EARLIER

FULLY ORIGINAL (GENERATIVE)

SEEM MUCH LESS SOPHISTICATED THAN UTTERANCES IN STAGE 1 OR 2, BUT REPRESENT AN ENORMOUS LEAP FORWARD

Stiegler, 2019

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48

Examples of Stage 3

6-year-old child says "President of the USA book!" while looking at a children's book about government

SLP models two-word combinations such as "president's book" or model a sentence with an emphasis on the two-word combination such as "it's a PRESIDENT'S BOOK"

Stiegler, 2019

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49

Characteristics of Stage 4 Utterances

SELF-GENERATED GRAMMAR: FIRST SIMPLE SENTENCES
tends to happen at a much later chronological age than what we consider to be "typical"

ALLOWS FOR SOME FLEXIBLE SELF EXPRESSION
CAN BE "LEGAL" OR "SYNTACTICALLY ILLEGAL"
MODEL UTTERANCES THAT ARE AT THE CHILD'S DEVELOPMENTAL LEVEL
We must become fluent in the level ourselves (Blanc, 2012)

AVOID QUESTION FORMS FOR NOW

Interrogatives might seem like questions to us, but they are language models for gestalt processors
Gestalt processors will pick up on question format and use that instead of other types of utterances

Stiegler, 2019

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50

Examples of stage 4

WHILE SLP MODELS SIMPLE SENTENCES DURING PLAY, 6-YEAR-OLD CHILD SAYS: "HIM GOT SAND OVER" MEANING THE CHILD PUTS SAND ON TOP OF THE ACTION FIGURE SHE IS PLAYING WITH TO "BURY" HIM IN THE SAND

ALTHOUGH NOT A "LEGAL" OR AN APPROPRIATE MORPHOSYNTACTIC STRUCTURE, THE MITIGATION IS A STEP FORWARD IN PRODUCING GENERATIVE LANGUAGE

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51

Characteristics of Stage 5 and 6 Utterances

EVEN MORE COMPLEX GRAMMAR

HOW MUCH PROGRESS CAN YOUR CLIENT ACHIEVE?

WHAT WOULD HAPPEN IF WE ALL EXPECTED CHILDREN WITH ASD TO DEVELOP FLEXIBLE, HIGHER-LEVEL LANGUAGE?

SADDLER (WHEN I FIND THE REFERENCE) RE INTERVIEW DATA; OLDER CHILDREN AND ADULTS WITH ASD EXPLAINED THAT THEIR ECHOLALIA OR GESTALT LANGUAGE WAS IMPORTANT IN LEARNING TO USE GENERATIVE LANGUAGE

Stiegler, 2019

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52

EVIDENCE-BASED STRATEGIES FOR FACILITATING THE TRANSITION FROM ECHOLALIA TO SELF-GENERATED LANGUAGE

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53

How can SLPs help children move through the stages?

WILLINGNESS TO LISTEN TO OUR CLIENTS

WRITE DOWN WHAT THEY SAY (LANGUAGE SAMPLING, RECORDINGS FROM HOME, PARENT/CAREGIVER INPUT)

FIGURE OUT THE ZONE OF PROXIMAL DEVELOPMENT

SYSTEMATICALLY PLAN OUR SUPPORT

Stiegler, 2019 Blanc, 2012

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54

EBP Language intervention PRINCIPLES

CAREFULLY OBSERVE (VIDEO LANGUAGE SAMPLING) TO
ASSESS COMPREHENSION
DISCERN UNDERLYING FUNCTIONS
WATCH FOR MITIGATIONS

Look for gaze, gesture, body orientation, etc., as markers of comprehension

Try to discover the functions of utterances by contexts, consistency of use

Mitigations are clear indicators of progress and should be tracked

Stiegler, 2019 Blanc, 2012

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Language sampling

LANGUAGE SAMPLE DATA IS THE PHYSICAL EVIDENCE OF OUR FIELD

YOU CAN:

Have parents or teachers record samples

"Scribe" or write down what the child says as they are saying it
shows the child you are listening without interrupting them

Analyze the utterances with regard to language components such as

Vocabulary

Syntax

Pragmatic functions

Plan next steps in treatment

Stiegler, 2019 Blanc, 2012

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56

Sample Example

D = Now wait, let's sing
C = Let's sing
(Dad starts singing the birthday song, and C quickly joins in, singing on key and clapping at the end of each phrase of the song. They both blow out the candles.)
D = Whoa Care Bear, no spitting, no spitting! Care Bear!
C = No spitting.
D = Easy does it!
C = Easy.
D = Wow, look at that huh?
C = (In a low pitch) It's awesome.
D = Ooh, that's a cake and a half. Did you pick that out?
C = Yes!
D = What kind is it?
C = It's a yellow one.
D = It is?
C = It's got flowers on it.
D = Oh that's great, what a birthday cake, huh?
C = (Following Dad's intonation contour) What a birthday cake, huh?

Stiegler, 2019

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57

Speech-Language Pathologists can

FACILITATE VERBAL INITIATIONS

Structure intervention so that the individual initiates as often as possible, rather than respond to questions and/or commands

The child is even more likely to be in the responder role so they do not learn to initiate

Learn to wait, set child up to initiate

Stiegler, 2015, Rydell & Mirenda, 1994

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58

Speech-Language Pathologists can

FACILITATE LOW-CONSTRAINT (SCRIPTED) INTERACTION STYLES
AMONG ALL COMMUNICATION PARTNERS

Partners should avoid too many direct questions and commands
because they are most likely to result in echolalia

Try to use comments more often than questions

Stiegler, 2015, Rydell & Mirenda, 1994

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59

Speech-Language Pathologists can

IF YOUR CLIENT USES IMMEDIATE ECHOLALIA (STAGE 1 GESTALTS)
DURING THEIR CONVERSATIONAL TURN

try to use your turn to provide information that will
build comprehension and honor the client's communicative intent

HERE ARE SOME EXAMPLES FROM MILLER (1981)

Stiegler, 2015, Rydell & Mirenda, 1994

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60

Non-focused

CLINICIAN REDIRECTS BY PROVIDING AN ADDITIONAL INSTRUCTION ABOUT THE ACTIVITY

CLINICIAN: (HOLDING STRAWS) "DO YOU WANT A BLUE ONE?"
CHILD: (LOOKING AWAY) "WANT A BLUE ONE?"
CLINICIAN: "BEN, HERE'S YOUR STRAW. LET'S MAKE OUR BOAT."

(see Stiegler, 2019, Miller, 1981)

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61

Turn-taking

CLINICIAN PROVIDES A PHYSICAL DEMONSTRATION THAT HELPS THE CHILD COMPREHEND CRITICAL VOCABULARY

CLINICIAN: "WE NEED TO STICK IT IN THE SOAP."
CHILD: (LOOKING AT CLINICIAN) "STICK IT IN THE SOAP."
CLINICIAN: "WATCH, I'M GOING TO STICK THE STRAW IN THE SOAP." (SAYING THE WORDS WHILE DEMONSTRATING THE ACTION)

Miller, 1981

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62

Declarative

CLINICIAN MODELS AN APPROPRIATE LINGUISTIC FORM TO MATCH THE CHILD'S EXPRESSED INTENT

CLINICIAN: "WE NEED THE GLUE."
CHILD: (REACHING FOR GLUE) "NEED THE GLUE."
CLINICIAN (WHISPERS) "YOU CAN SAY," (OUT LOUD) "I'LL GET IT."

Miller, 1981

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63

Yes-Answers

CLINICIAN PROVIDES ADDITIONAL INFORMATION RELATIVE TO THE CONVERSATIONAL TOPIC

CHILD: "WHAT'S THAT?"
CLINICIAN: "THAT'S A PAPER CUP."
CHILD: (PICKS UP CUP) "A PAPER CUP."
CLINICIAN: "WE'RE GOING TO USE THE CUP TO MAKE A FLOWER."

Miller, 1981

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64

Memory Assist

AFTER COMPLETION OF THE TASK, CLINICIAN CONFIRMS THAT THE MOTOR TASK IS CORRECT AND SUCCESSFULLY IMPLEMENTED

CLINICIAN: "NOW YOU HAVE TO CUT THE PAPER."
CHILD: (IN LOW INTENSITY VOICE) "CUT PAPER. CUT PAPER." (REPEATS AS THEY CONTINUE TO CUT THE PAPER)
CLINICIAN: (AFTER COMPLETION) "GREAT, LOOK AT HOW WELL YOU CUT THE PAPER."

Miller, 1981

BYU

65

Rehearsal

CLINICIAN CONFIRMS THAT THE CHILD'S PARTICIPATION IS SUCCESSFUL, INSERTING A TIME DELAY TO ALLOW INFORMATION PROCESSING

CLINICIAN: "LET'S USE A CRAYON TO DRAW THE EYES."
CHILD: (CHOOSES CRAYON) "DRAW THE EYES." (IN A WHISPER)
CLINICIAN: (AFTER A BRIEF TIME DELAY) "THAT'S RIGHT, WE'RE MAKING THE EYES."

Miller, 1981

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66

Model useful gestalts

USEFUL

Used in many different contexts, many examples of how to use in different ways

EASY TO MITIGATE

PLAYFULLY OFFERED

MATCHED TO THE INDIVIDUAL'S INTENT

Say what the individual would say if they could

DEVELOPMENTALLY APPROPRIATE...MODEL "KID LANGUAGE" FOR A CHILD

BLANC (2012) SUGGESTS STARTING WITH "LET'S...", "IT'S..." AND "I'M..." AS EXAMPLES OF EASILY USED FORMS

Stiegler, 2019, Blanc 2012



67

If we determine that the child is functioning primarily at Stage 1

MORE USEFUL STAGE 1 GESTALTS
SOME STAGE 2 UTTERANCES THAT BREAK DOWN CURRENT GESTALTS

EXAMPLES:

- "TO INFINITY AND BEYOND!"
 - To bed and on
 - To dinner and on
 - To school and on
 - Eventually drop the "and on"
- "I'M LOOKING FOR WEST ESPANADE" (SAID BY MOM WHEN THE WERE LOST)
 - I'm looking for my pencil
 - I'm looking for my lunch
 - I'm looking for...

Stiegler, 2019



68

Practice

A CLIENT OFTEN USES THE GESTALT, "OKAY PLEASE PUT THE MONKEY DOWN."

HE USES IT WHEN THERE IS NO MONKEY PRESENT. HE SEEMS TO USE IT IN STRESSFUL MOMENTS. IT COMES DIRECTLY FROM AN ANIMATED MOVIE.

THINK OF A DIFFERENT GESTALT THAT MIGHT MORE CLOSELY MATCH WHAT THE CHILD WOULD LIKE TO SAY IN STRESSFUL MOMENTS

THINK OF FUNCTIONAL MITIGATIONS OF THE MONKEY GESTALT THAT YOU MIGHT MODEL

Stiegler, 2019



69

Once you determine that the client is using Stage 2 utterances, you can:

CONTINUE TO MODEL STAGE 2 UTTERANCES

REDUNDANTLY AND MEANINGFULLY MODEL STAGE 3
breaking out/highlighting individual words

Once the child is using 50% or more of Stage 2 utterances, time to move on to and or introduce Stage 3 utterances

Stiegler, 2019



70

Tracking Progress

IF YOUR CLIENT IS CLEARLY USING STAGE 3 UTTERANCES AT LEAST 50% OF THE TIME, YOU CAN MODEL STAGE 4

Very simple

Useful

Meaningful

Age-appropriate sentences that contain familiar words and new vocabulary

Note: when children are upset they might revert back to earlier stages of gestalt language, which is an indication that the child is stressed and may need a break

Stiegler, 2019



71

Cautions from Blanc (2012)

BE CAREFUL ABOUT TEACHING ROTE "FUNCTIONAL" OR "SURVIVAL" UTTERANCES

A CHILD WHO IS A GESTALT PROCESSOR WILL LEARN ROTE UTTERANCES AS GESTALTS

- Comprehension is limited, may not comprehend the intended meaning
- May not be able to use individual elements of the utterance in generative ways

WHILE REQUEST SUCH AS "I WANT A _____ PLEASE" ARE POWERFUL AND IMPORTANT...

- These types of phrases are quite basic
- Consider modeling equal numbers of other pragmatic functions
 - Protests
 - Greetings
 - Comments
 - Expressions of feelings
 - descriptions



72

SLP Role in Leading the Communicative Team

ONE OF THE MOST IMPORTANT PARTS OF OUR JOB IS TO TEACH OTHERS
WHAT TO DO TO HELP ENHANCE COMMUNICATION

FAMILY PARTICIPATION IS KEY

Zwainbaum et al, 2016

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73

Ideas for Educating Family Members and Professionals

EXPLAIN THE CONCEPT OF GESTALT LANGUAGE PROCESSING

EXPLAIN THE PROCESS OF MITIGATION OF UTTERANCES USING CLEAR
METAPHORS (ROULAKIS, 2019)

Comic book to describe gestalt language development

USE THE PASSAGES/RESOURCES ON ECHOLALIA FROM HANEN'S *MORE THAN
WORDS* GUIDEBOOK, ONLINE VIDEOS

<http://www.hanen.org/Programs/For-Parents/More-Than-Words.aspx>

Stiegler, 2019

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74

Ideas for Educating Family Members and Professionals

PROVIDE ACADEMIC LITERATURE WHEN APPROPRIATE (E.G., STIEGLER, 2015)

EVEN STAGE 1 UTTERANCES (UNMITIGATED GESTALTS) CAN BE
COMMUNICATIVE AND VALUABLE

[HTTPS://WWW.HANEN.ORG/SITEASSETS/ARTICLES--PRINTER-
FRIENDLY/RESEARCH-IN-YOUR-DAILY-WORK/THE-MEANING-BEHIND-THE-
MESSAGE_HELPING-CHILDREN-WH.ASPX](https://www.hanen.org/siteassets/articles--printer-friendly/research-in-your-daily-work/the-meaning-behind-the-message-helping-children-wh.aspx)

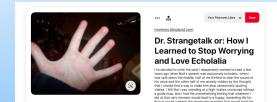
Stiegler, 2019

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75

Provide many opportunities to PRACTICE

Variety of:
Partners
PEERS
Topics
Settings



<https://www.pinterest.com/pin/404427285082710600/>

Stiegler, 2019

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76

Competing with Animated Media

FIND TREATMENT ACTIVITIES THAT HAVE A CHANCE OF "COMPETING" WITH
ANIMATED MEDIA

REMEMBER JOINT ACTION ROUTINES
WE KNOW ABOUT THE IMPORTANCE OF PLAY

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77

Why symbolic play for children with ASD

Intervention: 30 min daily for 5-6 weeks

- COMPARED TO CHILDREN WHO RECEIVED ONLY ABA INTERVENTION, CHILDREN IN THE SYMBOLIC PLAY GROUP SHOWED MORE DIVERSE TYPES OF SYMBOLIC PLAY IN INTERACTION WITH THEIR MOTHERS AND HIGHER PLAY LEVELS ON BOTH THE PLAY ASSESSMENT AND IN INTERACTION WITH THEIR MOTHERS.
- ONE YEAR AFTER THE PROGRAM, CHILDREN IN THE SYMBOLIC PLAY GROUP HAD SIGNIFICANTLY GREATER EXPRESSIVE LANGUAGE GAINS THAN CHILDREN IN THE ABA PROGRAM.

Kasari, C., Freeman, S., & Paparella, T. (2006). Joint attention and symbolic play in young children with autism: A randomized controlled intervention study. *Journal of Child Psychology & Psychiatry*, 47, 601-620.

Kasari, C., Paparella, T., Freeman, S.N., & Jahromi, I. (2008). Language outcome in autism: Randomized comparison of joint attention and play interventions. *Journal of Consulting and Clinical Psychology*, 76, 125-137.

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78

JASPER

<p>JA Joint Attention</p> <p>joint attention (JA) is the coordination of attention between objects and people for the purpose of sharing. Our studies show that children with ASD use more JA when these skills are modeled and taught directly.</p>	<p>SP Symbolic Play</p> <p>We model appropriate play, facilitate joint attention within play routines, and encourage greater diversity in types of play with the goal of helping children increase their diversity, flexibility, and level of play.</p>	<p>E Engagement</p> <p>Increases in engagement are critical because they lead to more opportunities for social communication and learning. For this reason, we aim to help children with ASD reach higher states of joint engagement with others.</p>	<p>R Regulation</p> <p>Our approach stresses the importance of emotion and behavior regulation. We offer a number of strategies to address lack of engagement, self-stimulatory behaviors, and regulation challenges in children with ASD.</p>
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developed by the KASARILAB

<http://www.kasarijlab.org/treatments/jasper/>

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79

And finally, remember

OTHER PROFESSIONALS MAY DEFINE, CHARACTERIZE, TREAT, AND REFER TO ECHOLALIA VERY DIFFERENTLY FROM WHAT WE HAVE TALKED ABOUT TODAY

OUR ROLE AS EDUCATORS

EVIDENCE BASED PRACTICE (SEE REFERENCES)

Stiegler, 2019

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80

...and remember

- BEHAVIORAL LITERATURE: "VOCAL STEREOTYPE"
 - describe treatments for abatement
Neeby, L., Gerow, S., Rispoli, M. et al. 2016
- CONCERNING BECAUSE WE KNOW THAT ECHOLALIA IS SIMPLY A REFLECTION OF GESTALT LANGUAGE PROCESSING
 - Abatement of echolalia could severely impede a child's potential for language acquisition

Stiegler, 2019

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81

...and remember

LISTEN TO YOUR CLIENT WITH ECHOLALIA/GESTALT LANGUAGE

WRITE DOWN WHAT THEY SAY

RESPOND TO IMMEDIATE ECHOLALIA CONVERSATIONALLY, WITH SALIENT INFORMATION

FOR DELAYED ECHOLALIA, TRY TO DETERMINE THE STAGE OF GESTALT LANGUAGE DEVELOPMENT USING BLANC'S STAGES

REDUNDANTLY AND PLAYFULLY MODEL USEFUL GESTALTS AT THE CURRENT LEVEL, PLUS THE NEXT LEVEL UP

Stiegler, 2019, Blanc, 2012

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82

...and remember

TRY TO MAKE INTERVENTION INTERESTING ENOUGH TO COMPLETE WITH ANIMATED MEDIA

ENCOURAGE THE FAMILY AND OTHERS TO PROVIDE AS MANY OPPORTUNITIES FOR LANGUAGE PRACTICE AS POSSIBLE

EDUCATE OTHERS ON THE CHILD'S TEAM ABOUT GESTALT LANGUAGE DEVELOPMENT AND DISCOURAGE ABATEMENT TREATMENTS

KEEP THE CONVERSATION GOING AND DON'T GIVE UP

Stiegler, 2019

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83

Thank You for Spending this Time with Me

QUESTIONS

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84

