

Natural Language Acquisition in Autism: Echolalia to Self-Generated Language — Assessment and Treatment

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Madison, WI, September 12, 2014

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Language development and autism: all too often seen as a contradiction in terms. And where does echolalia fit in? Described as "the language 'soup' from which useful phrases will be extracted," Marge Blanc offer this encouragement: "Echolalia signals a delay, not a disorder." This article on the Communication Development Center website will introduce you to echolalia in autism, and describe the reasons echolalia today sounds so different from how it sounded in the past: [Echolalia on the Spectrum: The Natural Path to Self-Generated Language](#)

Natural Language Acquisition Summary (Blanc, 2012)

Stage 1	<p>Echolalia:</p> <p>Use of complete language gestalts: intonational contours, sentences, songs, episodes, or other wholes processed as single units of sound, taken directly from the environment and used moments, hours, or days later</p>	<p>Good job, Johnny! Are you OK?</p> <p>And now, for our feature presentation!</p> <p>Long ago in ancient Greece there was a golden age of powerful heros, and the greatest of all was the mighty Hercules.</p> <p>Let's get out of here! Want some more?</p>
Stage 2	<p>Mitigated Echolalia:</p> <p>Common parts of gestalts are mitigated from the whole; mix and match of these phrases into semi-unique utterances</p>	<p>Let's get + some more = Let's get some more!</p> <p>Want + out of here = Want out of here!</p>
Stage 3	<p>Isolation of the single word:</p> <p>Isolation of single words from mitigated phrases; "mix-and-match" of single words creating original two-word phrases (like the variants of "Mommy sock")</p>	<p>(1) Let's—get + Wanna—get = get Some—more + No—more = more</p> <p>(2) Get more! More get!</p>
Stage 4 Stage 5 Stage 6	<p>Generation of original sentences with beginning grammar, more advanced grammar and all grammar:</p> <p>Beginning stages of grammar, both correct and incorrect, followed by the stages of more advanced grammar</p>	<p>I get. Get more no. No get some. I wanna get some more. He gots 'em all. I gotted none but he did. We hafta get more and more and more all the time more! When do you think we'll have the entire set purchased and safely at home?</p>

Natural Language Acquisition Language Sampling (Blanc, 2012)

Before the sample: Getting to know the child

1. **Learn the history of language exposure.** This may be a huge arsenal of media for older children, and a smaller more intimate set of materials for younger children. Learn about the child's interests, favorite themes, characters and people, and most common linguistic themes. Even if the child seems minimally communicative, knowing which lines a child likes to hear and/ or say frequently hints to what he wants to communicate.
2. **Obtain other background material.** Ask the family to make a spontaneous home movie of their child in natural situations, gathering natural footage of daily situations. Additionally, have the family give you a complete list of the child's current and past favorite media, and other personal language sources. Talk with child's parents to ascertain the conditions that support his engagement and most spontaneous language use. Read available reports about the child, including OT and PT reports.

Preparing to elicit the language sample

In addition to suggested guidelines for language sampling set by Laura Lee in Developmental Sentence Analysis (1974), the following additional preparations should be made:

1. Provide a **setting** in which the child's physical and linguistic access could be predicted to be at its best; one that supports the child's physical, emotional and linguistic needs. This may be a school "sensory room" or OT/ PT space if these can be made available. Try it out with the child before doing the sample to see if the child is comfortable. If there is a known setting where the child speaks spontaneously, use that setting!
2. Provide a **language environment** that might promote the child's spontaneous use of the language within his developmental competency.
3. Give yourself **one to three sessions** with the child **before eliciting the language sample**. In the first session, build trust and rapport with the child to let them know you are there to listen, not "teach." The second or third session will probably be best for eliciting a sample to analyze.
4. Use a **recording device or note taker** so that the elicitation procedure does not interfere with the interaction between you and the child.

Eliciting a spontaneous language sample

1. As always, **samples should be spontaneous** and not prompted, and derived minimally through question asking. With children on the spectrum, additional guidelines apply, as well. Eye contact or other motor responses would not be expected. Toys and materials should be individually selected to match the visual style and interests of the child. Books and videos would not generally be used unless the clinician is confident they would promote, rather than limit, spontaneous language use.
2. **Keep the conversation going**, including equal turn-taking, using less language than the child, glossing judiciously and maintaining an accepting and positive demeanor. Adjust to match the child's need, and support the child's use of spontaneous language.
3. **Try to elicit truly spontaneous language.** The sample is not an assessment of the words, phrases or sentences he has learned to say outside of his language development, e.g. 'scripts' or learned responses. The sample may take more than one session if a child is not used to his spontaneous language being heard, valued, or acknowledged.

Natural Language Acquisition Scoring (Blanc, 2012)

Selecting a language sample for assessment

Samples should be long enough to represent the child's language competence at the time. At least 12 minutes long or 50 utterances. However, this length of sample may not capture the variability of language produced by a child with ASD. A 12-minute sample may only reveal Stage 1 utterances, while a 50-minute sample may contain Stages 1-4. Thus, **two samples or one longer one might be needed** to capture a more complete sampling of the child's spontaneous language.

Scoring a language sample with NLA

1. Transcribe the sample verbatim, including partner turns, to provide linguistic context for the conversation. Note context of utterances when relevant. All child utterances should be included, including spontaneous utterances (natural and scripted) and others that were directly elicited (e.g. with a question).
2. Transfer all client utterances from the transcript to the NLA assessment form.

Scoring guidelines:

1. Number and score only those that are deemed spontaneous (natural or scripted).
2. Scripted utterances that have been specifically taught are numbered on the NLA form but scored 0, even if they are mitigated. NLA scoring reflects natural language development, not the use of learned utterances, even if mitigated.
3. Naturally-acquired whole gestalts, regardless of the length, are scored as Stage 1. Each is a "unit of meaning."
4. Mitigated utterances from natural whole gestalts are scored as Stage 2.
5. Single word utterances may be scored as Stage 1 (acquired as gestalts), Stage 2 (mitigated from short gestalts as part of a broader Stage 2 process), or Stage 3 (isolated from mitigations as part of a broader Stage 3 process).
6. 2-to-3 word utterances could be Stage 1 gestalts, Stage 2 mitigations, or Stage two-word combinations. The linguistic history will help you determine the Stage.
7. Lengthier utterances may be Stage 1 if echoed from elsewhere, Stage 2 if mitigated. If the child has successfully negotiated Stage 3, it may be beginning grammar, Stage 4.
8. Multi-word utterances of any length might be Stage 1 or 2 if they are echolalic in origin. They may be scored as Stage 4-6 if the child has passed through Stage 3, and the child is generating developmental grammar.
9. DSS analysis can follow once a child has a large percentage of Stage 4-6 utterances. Stages 4-6 each represent levels within Developmental Sentence Scoring (Stage 4=DSS 1-3; Stage 5=DSS 4-6; Stage 6=DSS 7-8).
10. An utterance can be scored as representing more than one Stage if this most accurately describes it. A common occurrence is an utterance that is made up of a mitigation plus an isolated single word. In this case ½ point can be tallied in each of the two Stage totals. Another example is a combination of a mitigation plus grammar, in which case ½ points are tallied in both Stage 2 and Stages 4-6 totals.
11. Total number of points at each Stage are tallied and percentages calculated.

Interpreting Assessment Results (Blanc, 2012)

Determine the percentage of total utterances at each Stage within an appropriate language sample.

1. If 80% or more of the utterances in an appropriate sample are at one Stage, the child is likely operating at that Stage developmentally.
2. If 50% or more of the utterances in an appropriate sample are at one Stage, the child is likely operating at that Stage most (or much) of the time.
3. If no single Stage is represented more than 50% of the time, then processes at more than one Stage are being used.
4. The highest Stage that is represented suggests that the child is developing towards that level.

Establish Treatment Goals Based on Frequency of Utterances at Each Stage

Stage 1

1. > 50% of the time: Look at smaller percentages, and determine types of language models at Stage 1 that might lead to larger Stage 2 component by being easily mitigable
2. 25–50% of the time: Examine variety of Stage 2 phrase mitigations to provide you with other mitigations that may be helpful to move the child solidly to Stage 2 and beyond.
3. <25% of the time: Stage 1 may only be providing linguistic “background” for mitigations and providing cross-referencing for Stages 3 and 4

Stage 2

1. > 50% of the time: Help support the child’s functionality and flexibility of language. Tune into the child’s communicative intent to promote success.
2. 25–50% of the time: Examine phrase mitigations to provide mitigable gestalts and mitigations that will be quickly useful. Social language opportunities are imperative!
3. <25% of the time: Continue to look at those mitigations to see how more examples might help the child isolate the component parts that are yet alluding him.

Stage 3

1. > 50% of the time: Look at the variety and flexibility of the combinations. Provide opportunities for building a great variety off conceptual combinations.
2. 25–50% of the time: Look at Stage 2 and make sure it is comfortable and functional for the child. He may need more Stage 2 language to further break down in order to make a good transition to Stage 3.
3. <25% of the time: Recommendations are based on the use of other levels. If he is moving out of Stage 1 and into Stage 2 flexibly, a small percentage of Stage 3 single word provides him with good building materials for Stage 4.

Stage 4

1. > 50% of the time: Look at each grammatical utterance to be sure it is developmentally appropriate and foundational to higher-level grammar; look at incorrect as well as correct utterances. Too many "correct" sentences can be a red flag that the child is trying to sound a certain way, and may undermine the natural developmental process.
2. 25–50% of the time in Stages 4–6: Look at Stage 3 to make sure it is rich and varied and supportive of more Stage 4 development. Also look closely at Stage 4 to make sure all structures at each DSS level are represented with a variety of vocabulary that the child is not trying to move on to higher grammar before he is ell-supported with basic grammar.
3. <25% of the time: Examine the other levels. Grammar should not be promoted before there are adequate building blocks, which need to come from Stage 2 mitigations through Stage 3 single-word isolation.