Cluttering: Resolving the Mystery

Ellen Bennett Lanouette, Ph.D.
Speech Therapy Group
El Paso, Texas
**ebennett@elp.rr.com**

Objectives:

- **Identify the multi-factorial components of cluttering;**
- **List assessment parameters of cluttering;**
- **List therapy strategies for working with people who clutter;**
- **Outline an individualized approach to developing language organization skills in children and adults who clutter**

Definition

St.Louis, Raphael, Myers and Bakker, 2007 -
- *Cluttering is a fluency disorder characterized by a rate that is perceived to be abnormally rapid, irregular or both for the speaker (although measured syllable rates may not exceed normal limits) .*
- *These rate abnormalities further are manifest in one or more of the folowing symptoms:*
  - *an excessive number of disfluencies, the majority of which are not typical of people who stutter*
  - *the frequent placement of pauses and use of prosodic patterns that do not conform to syntactic and semantic constraints; and*
  - *inappropriate (usually excessive) degrees of coarticulaion among sounds, especially in multisyllabic words.*

Weiss (1964) Central Language Imbalance Perspective
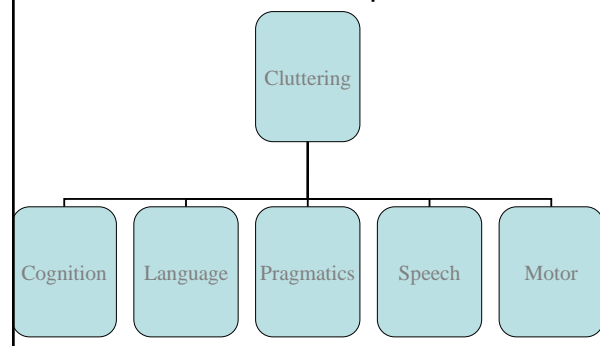
Cognition

- Awareness
  - Listener perception
  - Self-monitoring
- Thought Organization
  - Sequencing
  - Categorization
- Memory
- Impulsivity

Language

- Expressive-Verbal
  - Thought organization
  - Poor sequence of ideas
  - Poor storytelling
  - Language formulation
  - Revisions and repetitions
  - Improper linguistic structure
  - Syllabic or verbal transpositions
  - Improper pronouns use
  - Word finding
  - Filler words, empty words
- Expressive- Written
  - Run-on sentences
  - Omissions and transpositions of letters, syllables, and words
  - Sentence fragments
- Receptive
  - Listening/directions
  - Reading disorder

Pragmatics

- Conversations
  - Inappropriate topic maintenance and termination
  - Inappropriate turn taking
  - Poor listening skills
  - Impulsive responses
  - Lack of consideration of listener perspective
  - Verbose or tangential

- Nonverbal Communication
  - Poor eye contact
  - Inadequate processing of nonverbal signals

Speech

- Speech Disfluency
  - Excessive repetition or words/phrases
- Syllabic or Verbal Transpositions
  - Rate (rapid or irregular)
  - Poor rhythm
  - Loud, trails off
  - Lacks pauses between words;
  - Vocal monotony

- Slurred Articulation
  - Omits sounds
  - Omits syllables
  - Difficulty with complex sounds
- Dysrhthmic Breathing
- Silent gaps/hesitations

Motor

- Poor motor control
- Slurred articulation
- Dysrhythmic breathing
- Clumsy and uncoordinated
- Poor penmanship
- Speech disfluencies
  - Excessive repetitions or sounds or words

Assessment Parameters

- Determine if cluttering is co-occurring with stuttering;
- Document presence of co-existing disorders, i.e., attention deficit hyperactivity disorders, learning disabilities, and auditory processing disorders
- Obtain complete case history with emphasis on onset of learning or behavioral problems in school
- Audio and video record a variety of speaking samples

Oral Reading

- Limits the possibilities for language formulation difficulties
- Sample at two levels below achieved reading level
- Read out loud without preparation and a piece with preparation
- Ask the client to tell you his perspective of how he read the text.
- Look for missed function words and particularly pronouns
- Be aware of errors in syllable and word structure e.g. telescoping of syllables or semantic parafrasies

Spontaneous Speech

- Continuous speech samples, i.e. story retell, movie monologue;
- Have client generate a novel story which stresses the cognitive system and brings out the cluttering symptoms.;
- Dialogue with varying degrees of time pressure;
- Include significant others
- Transcribe sample to analyze cluttering and language factors

Spontaneous Speech (cont'd)

– Be aware of errors in syllable-, word- and sentence structure
– Because of the multidimensional nature of cluttering, we need to supplement assessment of the individual dimensions such as rate and fluency with a means to rate the overall severity of cluttering based on the trained clinician's perception. One such assessment tool is a freeware developed by Klaas Bakker, the *Cluttering Assessment Program.*

Articulation

- Rote tasks, such as counting (forward & backwards) or reciting memorized material
- Be aware of errors in syllable-, word structure and measure articulatory rate
- Older clutterers should read some words that are difficult to pronounce (e.g., "statistical", "chrysanthemum", "possibilities", "tyranosaurus") and produce these words three times in a row at a slow and fast speech rate
- Older clutterers should read some words with changing stress pattern sequences such as "apply, application, applicable" (a_ply' / a_pli_ca'_tion / a_pli'_ca_ble)
- Have client produce words at a "slow rate" vs. "fast rate"
- OMAS (Riley): Useful to measure coordination abilities

Language

- Word-finding problems
- A high percentage of normal difluencies,
- Lack of coherence in discourse,
- Lack of awareness of a breakdown in communication (listeners perceptions)
- Problems can be examined after transcription of spontaneous speech and retelling a story.

Language (cont'd)

- Imitation of word sequences, sentences up to 20 word-sentences for adults and adolescents provides information on auditory memory skills and on the amount of language complexity the client can handle.
- Imitation of numbers (forward and backward) provides information of auditory memory and flexibility
- Look for compromised pragmatics (e.g., poor presuppositional skills such as not taking into account the listener's viewpoint or knowledge; frequent interruption of conversational partner's turn

Self-Assessment

- Ask the client to critique his own speech during various recorded tasks, compared to the clinician's critique. A 5-point rating scale is often useful to judge the recorded samples on each of the major dimensions of the client's speech and language.
- Cluttering checklists and self-assessments
  – Predictive Cluttering Inventory (Daly, 2006),
  – Checklist of Cluttering Behaviours (Ward, 2006)

Writing

- Poor handwriting is one of the earlier behaviours associated with cluttering.
- Some older clutterers use the compensatory strategy of printing the written code. It is suggested that clients be asked to write in both script as well as print for comparison.
- Writing errors may mimic difficulties in the speech domain, so ask the client to write a short paragraph, looking for untidy or illegible writing, weak spelling, poorly constructed grammar, and transposition and omissions of letters as evidence of cluttering related behaviors.

Comments from the Consumer

- "Trouble comprehending what people say,"

- "I notice that when I am talking to someone - usually a close friend - I will completely randomly jump topics without warning, and then somehow manage to get back to whatever we were talking about."

- "My "cluttered speech" is basically a combination of bad timing (almost saying one syllable before the previous one is finished), and confusing my knowledge/review with what has been said, so some of the ideas may never be presented, making the rest worthless."

- "My engine is running more smoothly, but sometimes driving in circles."

- "It seem that every one talks about the speech aspect of cluttering and for the most part ignore the chaos aspect of it. The speech part for the most part is under control or at least within an acceptable dysfunction. What is really hurting me is the racing mind and pure chaos within my thought process. I find that given a laundry list of tasks and projects I have a real hard time getting anything accomplished. This is worse when all the project have the same importance and all can wait till later. Unless there is an issue of real importance I find myself laying in bed trying to calm and focus my mind."

Strategies for Treatment

- **Myers and Bradley (1992)**

  - **Increase semantic classification and categorization skills**
  - **Increase speech and accuracy of word retrieval**
  - **Heighten client's awareness of pragmatic variables (i.e. turn taking, coherency and contingency of discourse)**

Strategies for Treatment

- **St. Louis and Myers (1997)**

  - **Work on word finding through reduced speech rate**
  - **Work on semantic and syntax, especially relational vocabulary (because, unless)**
  - **Use mental mapping of narratives to facilitate organization**
  - **Help clients identify 'maze' behaviors**
  - **Work on social skill deficits**

Strategies for Treatment

- **Daly and Burnett (1999)**

  - **Naming attributes within given category**
  - **Categorization of items or objects**
  - **Detailed description of objects increased use of descriptors**
  - **Describe similarities and differences**

Using Visual Cues

- **From Charles Van Riper:**
    - **"Do not ask the clutterer to slow down, but find ways of slowing him down"**
- **Rate Control Activities:**
    - **Pacing Board-**
    - **Red Light- Green Light**
- **Speech Intelligibility Activities:**
    - **Where's the Caboose**
    - **Speech Puzzles**

Pragmatic Activities

- Conversation Tree

- Branches on My Tree

- Making Bridges

- Lips and Ears

COLOR CODING CUES TO ENHANCE LANGUAGE ORGANIZATION

- **Establish pathways between core areas of knowledge**

- **Fill the "pot holes" in these pathways**

- **Establish a high degree of automaticity in accessing these pathways**

Verbal Elaboration

Key elements of description with visual representations
- Assign each category a color
- Identify words that go in each category
- Underline words according to category
- Facilitating Wh? Question comprehension
- Practice "Why words go-together"
- Complete analogies using color coding
- Reading comprehension and color coding

Assign each category a color

Identify words that go in each category
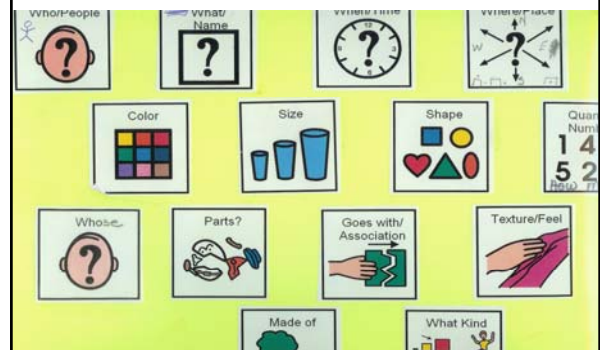
Underline words according to category

1. This Saturday is March 17th
2. Clovers are green.
3. Leprechauns are little Irish men.

Facilitating Wh? Question comprehension

1. When is St. Patrick's Day? ☆ March 17th
2. What color are clovers? ☆ green
3. What size is Ireland? ☆ small
4. Who is lucky? ☆ Marcelo
5. What things are green? clovers ☆

Practice "Why words go-together"

Word	Word	Relationship
Sticky	Marshmallow cream	Texture
3	Rainbow arches	Number
Rectangle	Graham cracker	Shape
Clouds	Marshmallow cream	Made of
Spread	Marshmallow cream	action

Complete analogies using color coding

Analogies

white is to ___ AS ___ is to clouds
rainbow is to ___ AS ___ is to sky
cracker is to ___ AS ___ is to rectangle
three is to ___ AS ___ is to arches

Reading comprehension and color coding

INSECTS

Name ___

Words to Know
alike   a • like
workers   work • ers
hives   hives
nectar   nec • tar
tunnels   tun • nels

Bees and ants are alike in some ways. Both bees and ants are insects. Both live in groups with a queen and have workers. The workers feed the queen.
Bees mostly live in hives. Bees visit flowers to get the nectar. Bees really like red flowers. They change the nectar to honey. They save the honey in honeycombs.
Ants mostly live in tunnels under the ground. Some ants eat leaves. Some ants eat insects. Some ants eat sugar. These are sugar ants.

1. Bees and _____ are alike in some ways.

Conclusion

- **Cluttering is a multidimensional disorder**
- **It DOES NOT HAVE TO BE difficult to treat**
- **Outcomes are variable and client dependent**
- **Majority of the literature is on adults**
- **Need more information on treatment strategies for use with children who clutter**

Helpful References

- Bennett, E.M. (2006). Cluttering: Another fluency disorder. In Bennett, E.M., *Working with people who stutter: A lifespan approach*, pp. 484-507. Columbus, OH: Pearson Merrill Prentice Hall Publishers.

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Web Resources

- Video clips:
  - http://www.bbc.co.uk/radio4/progs/radioplayer_holding.shtml
  - http://youtube.com/watch?v=EXtKWoVyb-Y
  - SFA's new videotape "Cluttering"
- cluttering@yahoogroups.com
- International Cluttering Association- for membership information, send contact information to ebennett@elp.rr.com or contact Kathy Scaler Scott at scalerscott1@earthlink.net