Treatment of Cluttered Speech in Asperger’s Disorder: Focus on Self-Regulation

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Our goal for this hour

- The *rationale* behind what we tell you today
- An *overview* of treatment principles and strategies
- The *preliminary* results of what we’ve tried
What is cluttering?: considerations and definitions

- A communication problem related to – but different from stuttering.

- Key components:
  - Excessive speech rate
  - Jerkiness in speech rhythm
  - Excessive number of typical types of dysfluencies
  - Under articulation /excessive coarticulation
  - (some would also add high level difficulties with expressive language to this list)
The present working definition (currently under review) defines the disorder thus:

- **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 following symptoms:
(a) an excessive number of disfluencies, the majority of which are not typical of people who stutter; (b) the frequent placement of pauses and use of prosodic patterns that do not conform to syntactic and semantic constraints; and (c) inappropriate (usually excessive) degrees of co-articulation among sounds, especially in multisyllabic words.

(St Louis et al., 2007, pp. 299-300)
What is cluttering?: further considerations

- Some significant problems in diagnosis:
  - 1. Cluttering tends to co-occur alongside other speech language disorders, such as:
     - Stuttering
     - Articulation disorders
     - Apraxia
     - Auditory processing disorder
What is cluttering?: further considerations

2. There is continuing debate as to what other symptoms might be core to the definition, and what might be more peripheral...
What is cluttering?:

further considerations

- With regard to points 1&2....

- it can frequently be difficult to be sure whether a certain behaviour may be attributed to cluttering, or an associated disorder.

- For example, take the following features which have all been associated with cluttering...
What is cluttering?: further considerations

- Inadequate awareness of listener reactions
- Problems with staying on-topic
- Lack of awareness of their communication difficulty
- Problems with linguistic organisation

Note that all of these features might equally well apply to a diagnosis of Asperger’s Disorder
What is cluttering?: further considerations

In order to deal with issues of cluttering symptom overlap, Ward (2006) has proposed the idea of Cluttering Spectrum Behaviour, which

‘...allows for the acknowledgment of cluttering elements within a single or multiple speech & language diagnosis, without making the assumption ‘...that all the cluttering signs are linked causally and exclusively to the disorder of cluttering.’  
(Ward, 2006, p. 151)
What is cluttering?: some considerations

- It is this overlap in symptoms, with specific regard to self-regulation in particular which provides the focus of this presentation.
What do we mean by self-regulation?

- “…Responses by the individual that are directed at him- or herself, rather than at the environmental event that may have initiated them.” (p. 51)
- “…Complex behavior involving self-generated plans and flexible adaptation to the changing demands of a task… that serve to modify one’s subsequent behavior so as to change the probability of future outcomes.” (p. 56)

Barkley, 1997
What we know about Asperger’s Disorder (AD), cluttering, and self-regulation

- Some preliminary data on cluttering in AD (Scaler Scott, in preparation)
- The link between engagement, self-regulation, and development of skills in AD (Greenspan, 2001; Prizant & Meyers, 1993)
Filling the gap

- The problem: little evidence based information on treatment of cluttering
- Little evidence-based information on treatment of fluency in AD
- The solution: Bridge the gap by using the little we know, strong theories we already know in cluttering and AD. Meld all this together to create the best plan possible
Bridging the gap

What do we agree upon in cluttering:
- Definition of *speech* characteristics
- **Self-regulation issues are implied in definition**

What do we agree upon in AD:
- **Self-regulation issues are implied in the diagnostic criteria**
- Difficulties with perspective taking
Case evaluation - Paul

- 10 year old 5th grade student
- Referral – made directly to 1st author by boy’s mother (an SLP), reporting Paul
  - Tended to speak quickly
  - Spoke at low volume
  - Was not clearly understood

The problem reportedly had worsened during the last year
Case evaluation: Case history

- Diagnosed with Asperger’s Disorder (AD) in 2nd grade
- Suffered from anxiety (medication - SSRI prescribed)
- Receiving bi-weekly counselling at the time of evaluation
- Unremarkable birth and medical histories
Case evaluation: Case history continued

- History of stuttering in maternal grandmother and great uncle

- Paul stuttered at age 4 (dysfluencies included prolongations and repetitions)

- Stuttering spontaneously recovered within approximately six months
Case evaluation: Case history continued

- Participated in gifted and talented programs at school
- Received occupational therapy to address difficulties in fine motor control (e.g., tying shoe laces and handwriting)
- Mother reported improvements in gross and fine motor skills, but described Paul as “slightly less coordinated” than his peers
Case evaluation: Findings

- AD and cluttering problems most likely to appear in extended speech contexts – therefore communication was tested formally and informally at conversational level

- Video and audio recordings made
  - Analyzed for (1) fluency (2) speech rate (3) articulation (4) language skills
Diagnosis: coexisting cluttering, AD and stuttering

- **Cluttering** - Irregular speech rate, decreased intelligibility, underarticulation, excessive NSLDs all fit with accepted definitions of cluttering
- **AD** – Problems with executive functioning resulting in problems with planning and organizing speech (May also be implicated in a cluttering diagnosis)
- **Stuttering** - some short tense blocks evident
Components of the Therapy Plan to work toward self-regulation of speech

Symptom focus areas:

- Fluency
- Articulation
- Rate
- Language

Synergistic approach (Myers & Bradley, 1992): Compensatory & Self-regulatory
Components of the Therapy Plan to work toward self-regulation

Goal One: Awareness
- The key: the initial buy-in and working through strengths (rationale and activities)
  - Begin outside of him and go in through the back door—he self generates and self identifies
- What’s in it for me? Is it worth the effort?
  - Why do I need to monitor my speech?
  - How will these specific strategies (i.e. pausing, pyramid, expeditor) help me? Show me proof...
- The activities
  - Working through interests and strengths (researcher/scientist/teacher)
  - The positive about the client (importance of what he has to say; find every opportunity to recognize)
Engagement is the key
Components of the Therapy Plan to work toward self-regulation

Goal Two: Motor/Self-regulatory strategies

- Pausing and overarticulation if needed (symptoms: articulation, rate, fluency)
- Desensitization games for eye contact (fluency therapy); functional purpose (AD therapy)
Components of the Therapy Plan to work toward self-regulation

Goal Three: Language/Self-regulatory strategies

- The pyramid approach
- The expediters approach
- Flow charts: the how vs. the what
- Continued desensitization and games
- Continued work on regulation in context
Summary of language strategies

* Principles adapted from the “Pyramid Approach” (Ward, 2006)

  Progress from the “big picture” to small details in descriptions.

  Resist providing additional information or asides before the “big
  picture” is explained.

  Resist using fillers.

Principles adapted from “Expediter Rules” (Scaler Scott, 2002)

  Use short sentences.

  Get right to the point.

  Do not use too many examples.

  Do not use non-specific pronouns.

  Give the listener background information.

* For a full program description, see Ward (2006), p. 371-372
I went skiing last weekend.

I went to Echo Mountain in Wyoming.

I wanted to go to Echo because it's a great mountain to ski. The mountain gets heavy snow.

The trails had very heavy snow on Saturday. The heavy snow made it difficult for me to ski. On Sunday the heavy snow was packed down. It was so much easier to ski on.
Components of the Therapy Plan to work toward self-regulation

Goal Four: Family Involvement

- In session
- Beyond session
- Child takes initiative
  - Teaching others
Subjective findings

- His response to feedback
- His account of what worked for him
- Observations from a school activity
- Observations from an outing
- Continued areas of difficulty
- Need for ongoing work in self-regulation: restaurants, school
What does this mean for the SLP?

- Don’t feel it has to be a complicated strategy—the disorder may be complex, the strategy may be simple
- Don’t feel because it is not a fancy complex speech strategy it is not our role...SLPs understand the whole picture and therefore their work with this is important (don’t minimize the importance of our role in this treatment)
What we have presented and what you can do next

- An overview of treatment principles and strategies (more to come soon...in print!)
  - Plan: Watch for it!
- The rationale behind our treatment choices
  - Plan: Read the references and learn more!
  - Visit: [http://associations.missouristate.edu/ICA](http://associations.missouristate.edu/ICA)
- The preliminary results
  - Plan: Let’s try this out together!
  - scalerscott1@earthlink.net; d.ward@reading.ac.uk
References

References

  
  http://associations.missouristate.edu/ICA


References


