# Common Characteristics and Treatment for Cluttering

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Introduction

Cluttering is most commonly known as a fluency disorder that is heterogeneous and multifaceted. It is characterized by many different symptoms that vary across clients. Alm stated (as cited in Ward & Scaler Scott, 2011) that "no single aspect is sufficient to determine the diagnosis: it is the clustering of certain traits that constitute this syndrome". Cluttering is an intriguing disorder yet there is little evidence other than clinical experience, a few studies, and a couple books that can provide concrete information about the disorder. Many authors from late and early works have varied opinions about what cluttering is exactly and what defines it. It was first defined by Weiss (1964) as a "verbal manifestation of a basic underlying central language imbalance, involving cerebral integration at the highest level of function" (Myers., 1996). However, there is a widely cited "working definition" of cluttering created by St. Louis, Myers, Bakker, and Raphael (2007).

Central language imbalance?

Motor disorder?
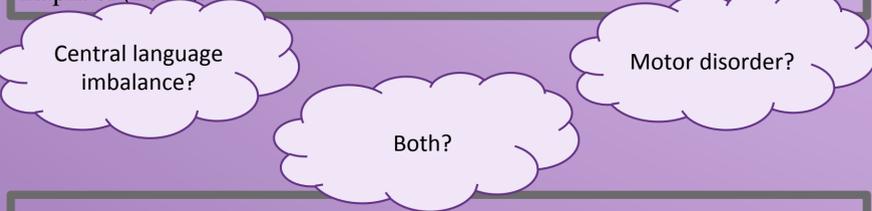
Both?

Working Definition

"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, (c) inappropriate (usually excessive) degrees of coarticulation among sounds, especially in multisyllabic words"(St. Louis et al., 2007, pp. 299-300).

Common Characteristics

As noted earlier, Cluttering is a multifaceted disorder, there are many symptoms and characteristics that range greatly from client to client. Characteristics noted by Myers, Bakker, St. Louis, and Raphael (2011), listed in Table 1, include excessive disfluency, which is the most widely attributed characteristic of Cluttering, due to collapsing or deletion of syllables and/or sounds, abnormal pauses, syllable stress or speech rhythm, interjections, revisions, repetitions, and majorly, a lack in awareness of the disfluencies or misinterpretation of the listeners encoding. In the 2011 study completed by Myers, Bakker, St. Louis, and Raphael, that aimed to analyze disfluencies as they occur in singletons and clusters, it was found that almost all disfluency types such as those mentioned above occurred at about the same frequency for people who clutter (PWC) and typically speaking people or people who do not clutter (PWNC). They found that the highest number of disfluencies in clusters for PWC were interjections, revisions and word repetitions, in that order. However, both groups showed about the same mean occurrence of disfluencies in singletons following the same order as above. It was found that for both PWC and PWNC the most common disfluency cluster consisted of interjections and revisions. Thus, Myers and others findings show that the speech and disfluencies of PWC and PWNC are very similar. In another study performed by Myers (1996), it was found that the majority of the PWC presented fast articulatory rate, normal or non-stuttering like disfluencies such as interjections, revisions, word and phrase repetitions, and articulation accuracy errors.

Coexisting Disorders

It is very common for Cluttering to co-occur with other disorders. According to Ward & Scaler Scott (2011), disorders that are typically coexistent with cluttering include stuttering, down syndrome, learning disabilities, and autism spectrum disorders. As noted by Howell and Davis (as cited in Ward & Scaler Scott, 2011), Stuttering and cluttering often co-occur. However, it is unclear what their relationship to one another is. There are two major theories about the relationship of cluttering and stuttering, first being that cluttering and stuttering are related disorders and second being that cluttering may lead to stuttering. However, there is little evidence to prove or disprove either theory. Borsel (as cited in Ward & Scaler Scott, 2011) noted that Down syndrome is one of the most frequently coexisting disorders with Cluttering. In a study completed by Van Borsel and Vandermeulen (2008), it was found that out of 76 participants with Down syndrome, 78.9% of them were also classified as a PWC. As stated by Scaler Scott (as cited in Ward & Scaler Scott, 2011), recent studies have found cluttering to be a common speech characteristic of people with an Autism Spectrum disorder (ASD). Scaler Scott also stated that it can be speculated that ASD equals cluttered speech but not the opposite. All of these coexisting disorders should be considered when planning treatment.

Myers Treatment of Cluttering

Treatment of cluttering can be very challenging as the disorder is multifaceted and varies depending on the client. According to Myers (as cited in Ward & Scaler Scott, 2011), treatment of cluttering should consist of a cognitive-behavioral approach that can be viewed as a systems approach. The idea is that therapy addressing one dimension will benefit other dimensions. It is also mentioned by Myers (as cited in Ward & Scaler Scott 2011) that a major therapy principle for cluttering should be focused around rate control and awareness of the breakdowns. Myers uses the metaphor of an A-frame home, similar to figure 1, to represent principles that should be included in therapy. Lanouette (as cited in Ward & Scaler Scott 2011) proposed that therapy should address specific domains including cognition, language, pragmatics, speech, and motor. However, Lanouette believes that the client should first be able to understand the "language of fluency" and their own cluttering "profile". This is mentioned by other authors including Daly and Burnett (1996), Myers, as well as Scaler Scott and St. Louis (as cited in Ward & Scaler Scott 2011).The understanding and awareness of the disorder is important for maintenance and carry-over outside of therapy.

Intervention Strategies

Many authors mentioned therapy techniques, most of which tend to overlap. Authors such as Dejonckere Van Zaalen, and Wijen (as cited in Ward & Scaler Scott), and others discuss the use of a speeding or MPH paradigm to practice rate control. Some authors also mention the use of pausing, delayed auditory feedback, and recording of the clients voice. Some of these strategies are listed below in figure 2, along with other strategies that follow Lanouette's domain's of cluttering therapy.
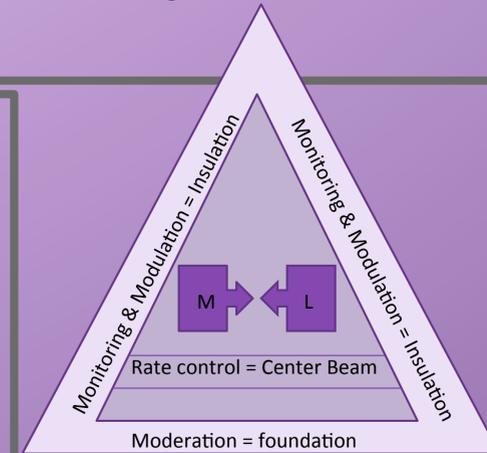

Figure 1. Components of Myers Cognitive-Behavioral Approach
M= Motoric elements L= Linguistic elements

Monitoring & Modulation = Insulation
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Rate control = Center Beam
Moderation = foundation

Figure 2. Domains of Cluttering therapy with examples

Cognition	Language	Pragmatics	Speech (Rate)	Motor
Self-monitoring •Self-evaluate •Watch recorded video • View written language sample	**Word Retrieval** •Rapid naming practice •Classification •Describing similarities and differences	**Verbal Domain** •Turn taking •Topic Maintenance •Compliments	**Speed** •Easy onsets •Delayed Auditory Feedback (DAF) •Negative practice	**Motor Programming** •Tongue twisters •Oral motor drills •Multisyllabic words
Silence •Gain understanding of the purpose •Use as a reflective time	**Lang. Organization** •Mental Mapping •Narrative development	**Non- Verbal Domain** •Communication effectiveness •Reading body language	**Tempo** •Phrasing •Poetry •Pausing	**Accuracy** •Chewing method •Traditional Artic Tx •Final Consonant Deletion
Listening •Head nodding and leaning forward •Use of reflective comments	**Lang. Organization** •Maze Identification •Word Associations		**Prosody** •Stress-unstressed Syllables •Multisyllabic words	

Table 1 Descriptions and examples of typical disfluencies common in people who clutter.

Disfluency	Collapsing or telescoping of syllables or sounds	Abnormal Pause	Syllable stress or speech rhythm	Interjections	Revisions	Repetitions
Description	•Syllables or sounds of words may be deleted changing the sound. Most commonly on multisyllabic words.	•Pausing may occur in the middle of a sentence rather than at grammatical markers.	•The client may not apply speaking rates correctly for questions and statements.	•Use of filler words such as um, uh, and like.	•The phrase is already started and then changed before completion.	•Word or phrase repetitions may occur.
Example	•Butterfly may sound like "butfly". •Did you eat may sound like "jeet"	• I really like..(pause)..those flowers. (No pause) Don't you?	•You liked dinner last night(?) (!) •Is it a question or statement?	•"I um really like uh the flowers".	• I am going to pick….to go to the store.	• I I I like… I like the flowers. • I like the, I like the flowers.