Musical Stuttering Sally Clark, B.A. & Beth L. Macauley, Ph.D. Mary K. Chapman Center for Communicative Disorders University of Tulsa, Tulsa, OK

Abstract:

Musical stuttering occurs when a brass musician, blocks, and cannot play the first note of a song. The blocking appears to be muscle tension that prevents the facial muscles from forming the correct embouchure around the mouthpiece and prevents the passage of air through the larynx. The stutter begins for no apparent reason and gets progressively worse as the brass player begins to psychologically fear that a stutter might occur. This presentation will compare the characteristics of musical stuttering with speech stuttering using results from a nationwide survey and experimental data from an attempt to elicit musical stuttering in clinic.

Introduction:

Speech stuttering is found everywhere in the world, and it has been present for as long as humans have had speech. Many factors contribute to its onset and persistence. A cure currently does not exist, but it is recognized that early diagnosis and treatment is key. Musical stuttering is found in brass musicians, and it has been described in literature since the early 1900s. Musical stuttering is similar to speech stuttering in that many factors contribute to its onset and persistence, and early detection and treatment is important.

Characteristics:

Musical Stuttering	Speech Stuttering
<u>Onset</u>	
-Between amateur and professional, college or in the first professional job	-Between two-word typically in utterances and puberty, from 18 months to 12
-Occurs at a major time of musical growth	years of age -Occurs at a major time of language growth
<u>Development</u>	
-Gradually more severe over time	-Gradually more severe
-Especially if negativity & tension are tension	-Especially if negativity &
not resolved	are not resolved
Primary Characteristics	
-Blocks most prevalent	-Blocks
-Repetitions	-Repetitions
-Prolongations	-Prolongations

-Escape and avoidance behaviors

behaviors

-Examples: eye blinks, head nods, jaw tremor

-Escape and avoidance

-Examples: eye blinks, head nods, jaw tremor, sounds, interjections of , uh,,

Feelings & Attitudes

-Negative feelings can occur immediately

(embarrassment, frustration)

-In the beginning, no negative

feelings

-As stuttering continues, feelings surface and increase

shame, etc.

-Begin to feel that they cannot play solos

-Consider themselves, damaged goods,,

-Begin to feel that they cannot

speak

-Consider themselves

, damaged goods,,

Results:

~127 survey respondents

What brass instrument do you play?

-95% horn

How many years have you played this instrument?

-61.7% more than 20 years

What do you consider to be your current performance level?

-45% Amateur (play for a profession but am not able to live off earnings)

How many hours per week do you practice/play your instrument?

-40.8% 5-10 hours

Do you have a degree in musical performance?

-53.3% no

Are you currently playing with a professional organization such as a symphony, or smaller ensemble? -50% yes; 50% no

How many years have you played with a professional organization?

-45.8% 0-5 years

Have you ever experienced this problem of blocking when you play or do you know of someone who has?

-48.7% Yes, I have experienced blocking personally

-21% Yes, I know someone who has

When was the first time you experienced blocking?

-36.4% in high school

-36.4% as an undergraduate

How many years had you played your instrument at the time blocking first occurred?

-54.5% 15-20 years

On what note did the block occur?

-60% first note of piece

What was your performance level at the time of your first block?

-40% Advanced (just play for fun, can play more difficult music.)

-40% Amateur (play for a profession but am not able to live off earnings)

Was there anything unique or different about the time you experienced your first block?

-70% no

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Where did the tightness or blocking appear first?
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-45% tongue; 20% lips; 20% throat

Approximately how long did your first block last?

-35% 1-3 seconds

How much force did it take to get the note out?

-50% a lot

After you experienced your first block, were you____nervous that it would occur again? -35% very

After you experienced your first block, did you avoid playing at any time because you were fearful that a block might occur again?

-75% no

At the time when musical stuttering was first noticed, what was your reaction?

-55% fear of reoccurrence

Have you ever sought help for this problem?

-55% yes

Since blocking began, have there been any changes in the symptoms?

-50% periods of time when the blocking "disappeared"

Did the blocking get worse?

-85% slowly (over a period of months/years)

Were there any periods (weeks/months/years) when the musical stuttering disappeared? -75% yes

Were there any periods (weeks/months/years) when the musical stuttering increased? -50% yes; 50% no

Do you still experience blocking behaviors when you play?

-75% yes

How frequently do you experience blocking?

-40% at least once a day

Are there any situations that are particularly difficult?

-80% yes

Are there any songs/solos that, make,, the blocking occur?

-70% no

Are there situations that you are confident the blocking will NOT occur?

-80% yes

Do you know anyone else who has experienced musical stuttering?

-80% yes

Are there any techniques or tricks that you use to help release the note?

-80% yes

Have you participated in private therapy to help stop the blocking from occurring?

-20% yes; 75% said it did not help

Have you participated in private lessons to help stop the blocking from occurring?

-70% yes; 60% said it helped

Is this topic an important one to study?

-90% yes

Fluency Enhancing Conditions:

- -Relaxed
- -In unison with someone else
- -To an animal or infant
- -In time to conductor
- -With a metronome

- -Play only with a mouthpiece
- -Play loud entrances

<u>Treatment for Musical Stuttering – ongoing study:</u>

- -French horn players
- -8 different horn solos in 4 different conditions
 - -Independent, DAF 100ms, DAF 350ms, white noise at 40dB
- -Which condition affects musical fluency most? Least?
 - -Thus far delayed auditory feedback (DAF) more disfluent than white
- -Reduced disfluency in one horn player who was disfluent
- -Created disfluency in 6 musicians who were fluent
- -White noise not as effective

Conclusion:

The evidence presented through the discussion the survey data strongly suggests that a link exists between musical stuttering and speech stuttering. Certainly, further scientific research is necessary to prove the existence of this link. However, we believe that this research allows us to state the following about the characteristics of musical stuttering:

- 1. Musical stuttering is a disorder consisting of a complex combination of physical, emotional, and psychological components.
- 2. Musical stuttering affects brass players of all instruments and levels of ability.
- 3. The onset and development of musical stuttering is heavily influenced by environmental factors.
- 4. Musical stuttering is characterized by key features (core behaviors, secondary behaviors, feelings and attitudes) which are identical to those found in speech stuttering.
- 5. Learning plays an important role in the development of musical stuttering.
- 6. There are certain conditions under which those who stutter musically are fluent.

Treatment

Currently there is no standard method for the treatment of musical stuttering. As in speech stuttering, spontaneous remission does appear to occur in a large portion of those who stutter. However, even in these cases the player often undergoes a period of substantial emotional and psychological stress in dealing with the problem. Considering the fact that this disorder primarily affects players at an advanced level, it could have a severely negative effect on a person professional career, even if it only occurs for a short period of time. Therefore, it is necessary to develop a method to eradicate musical stuttering through treatment of those who currently stutter, and prevent onset through a change in approaches to brass pedagogy.

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