

# Stutter-like dysfluencies in Flemish Sign Language users.

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## Introduction

Although stuttering is primarily considered to be a disorder of speech, stutter-like dysfluencies have been reported to occur during non-speech activities such as:

Musical expression:

- Trumpet stuttering (Van Riper, 1952).
- Flute stuttering (Silverman & Bohlman, 1988).
- Horn stuttering (Meltzer, 1992).
- Trombone stuttering (Packman & Onslow, 1999).

Sign language:

- Early studies concentrated on the prevalence of stuttering in the hearing impaired population which seems to be reduced compared to the normal hearing population.
- Later on researchers became interested in the existence of manual dysfluencies. It appears that dysfluencies can occur only in the oral mode, only in the manual mode or in both modes.

Recently we conducted a questionnaire study aimed at investigating the possible existence and nature of stutter-like dysfluencies in Flemish Sign Language (FSL).

## Method

### Participants

A questionnaire and a cover letter were sent to individuals who have knowledge of FSL and are in close contact with FSL users. A total of 66 individuals received the question form:

- 38 FSL interpreters.
- 28 employees of special needs schools adapted to deaf and partially deaf pupils.

### Questionnaire

The questionnaire related to deaf and partially deaf individuals without concomitant disabilities and consisted of 3 parts:

1. Inquiry into the occupational activities of the participants.
2. Research questions:

“Have you ever noticed dysfluencies in the manual communication of the deaf and partially deaf?”

If yes, which type of dysfluencies have you perceived? (table 1)

Are these dysfluencies generally located at the beginning, in the middle or at the end of a sign movement?”

3. Provide details on each deaf and partially deaf person considered to be dysfluent in the manual mode.

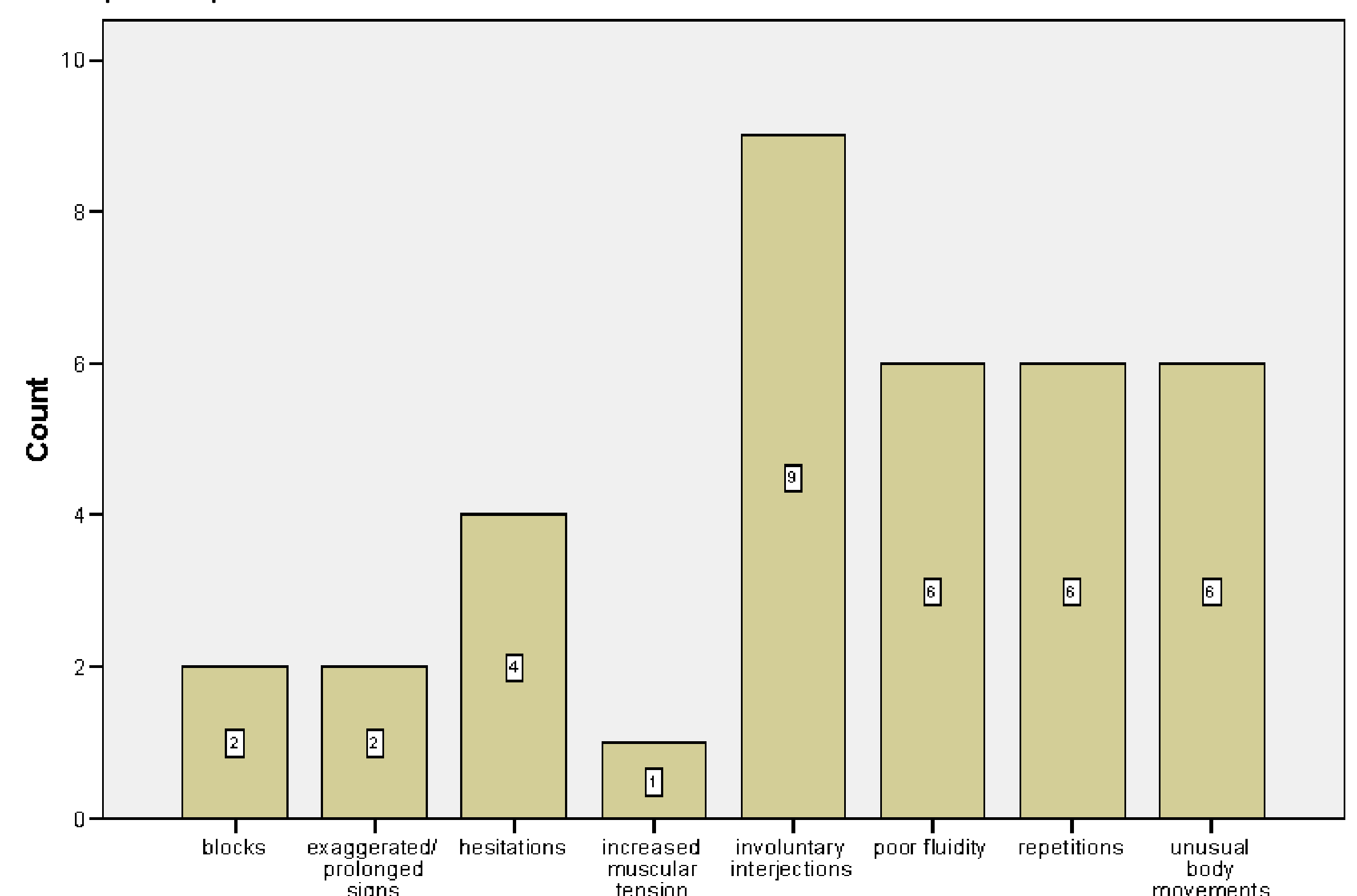
**Table 1. The list of hypothetical symptoms that might resemble stuttering in FSL as used in the questionnaire.**

Repetition of sign movement
Blocking during sign movement
Hesitation of sign movement
Exaggerated/prolonged signs
Involuntary interjections
Unusual body movements
Poor fluidity of the sign
Increased muscular tension associated with signing

## Results

- 13 of the 66 individuals responded (20%).
- 69% of them (9/13) have perceived dysfluencies in the manual communication of FSL users.
- The most frequently observed features were “involuntary interjections”, “repetition of sign movement”, “unusual body movements” and “poor fluidity of the sign” (figure 1).
- Dysfluencies can occur at various loci but there seems to be a slight preponderance for the initial position.
- Dysfluent individuals are often males.
- Individuals can be aware of their fluency failures and if so will often demonstrate secondary stuttering behaviour.
- Stress, fatigue and emotion will increase the manual dysfluencies at least in some cases.

Figure 1. Occurrence of different types of dysfluencies as reported by the participants.



## Conclusion

The current study revealed mainly features that are typical of (spoken) stuttering but also some features that are unlike those usually observed in (spoken) stuttering. If dysfluencies in manual communication can be regarded as stuttering, this has implications for our perception of the stuttering phenomenon:

- One could hold on to the idea that stuttering is “first and foremost a disorder of speech”. The existence of stuttering during non-speech activities could then be regarded as an extension of the symptomatology of stuttered speech. However, this view would be incompatible with the occurrence of dysfluencies solely in the manual mode.
- Stuttered speech could be considered as a symptom of an underlying disturbance in motor functioning. In that case, one would expect to encounter stutter-like dysfluencies in all sorts of behaviour demanding extensive motor planning.