

COARTICULATION IN SPEECH AND SIGN

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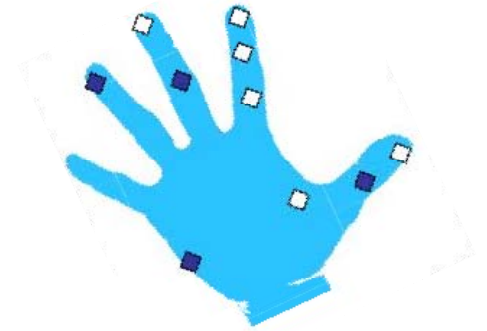
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Introduction

[1] Coarticulation makes articulation smoother

[2] In speech research mainly through acoustics

[3] In sign research through visual trajectories



Methods

Signed answers to given questions and tasks

6 measurement points in each hand

Results

Coarticulation consisted of series of decelerations and accelerations

Index fingers had broader and faster movement envelopes from other fingers

Right index finger movements broader and faster than left

Handedness effect present in thumb too but not other fingers

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Discussion

Alternations in speed in signing movements similar to speech

Index finger determines amplitude and rate of signing and other fingers follow with more restricted patterns, related to special task, pointing?

Thumb has more independent patterns from other fingers which demonstrates tendency to exploit capabilities as widely as possible

References

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[3] Loomis, J., Poizner, H., Bellugi, U., Blakemore, A. & Hollerbach, J. 1983. Computer graphic modelling of American Sign Language. Computer Graphics 17(3): 105-114.