The relevance of SignWriting as a way of transcribing the phonology of Sign Languages

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Our Aim

     This lecture aims at presenting the relevance of **SignWriting** (SW) as a way of transcribing the phonology of Sign Languages.

     We will focus on the prosodic model of sign language phonology (BRENTARI, 1998), as well as the SignWriting system (SUTTON).

Notations' Systems for Sign Language

- Mimographie

- Stokoe's Notation

- Hamburg Notation System – HamNoSys

- Writing System for Sign Languages – ELiS
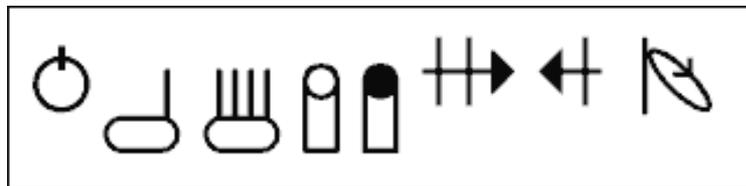
- SignWriting

What is SignWriting?
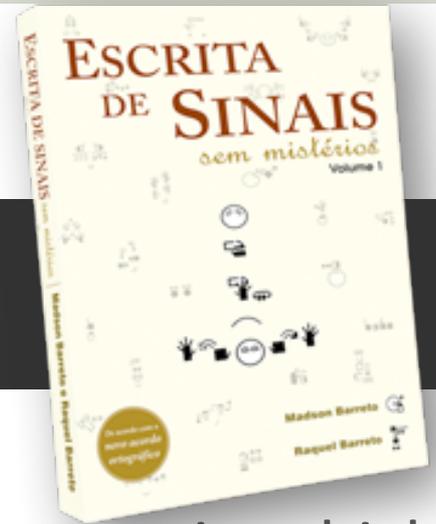
"SignWriting is a direct visual writing system in which sign languages can be written with no prior need to translate into an oral language. As the letters of Latin alphabet are used to write in Portuguese, English, French, among other oral languages, SignWriting has a set of symbols that can be used to write any sign language".

(BARRETO; BARRETO, 2012:42, our translation)

Transcription of Sign Languages:
Why SignWriting (SW)?

	Stokoe's Notation
	HamNoSys
	ELiS

It is quite likely that most of the notations' systems of sign languages seems to be arbitrary.

Transcription of Sign Languages:
Why SignWriting (SW)?
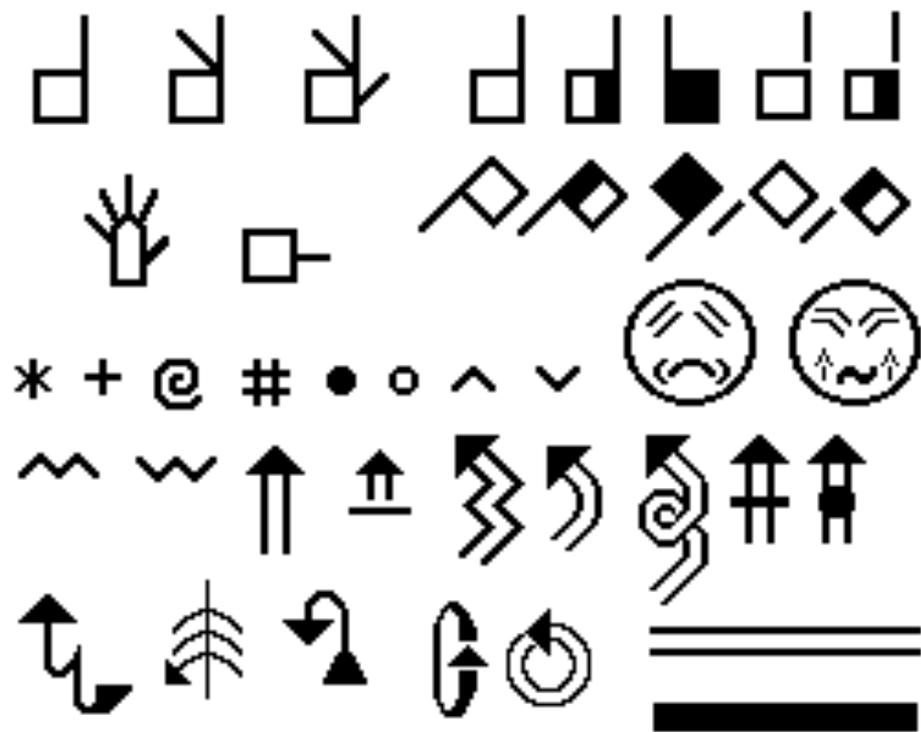
SW depicts most of the iconicity inherent to each sign.

the international phonetic alphabet (2005)

consonants (pulmonic)	Bilabial	Labio-dental	Dental	Alveolar	Palato-alveolar	Retroflex	Alveolo-palatal	Palatal	Velar	Uvular	Pharyngeal	Epi-glottal	Glottal
Nasal	m	ɱ		n		ɳ		ɲ	ŋ	N			
Plosive	p b			t d		ʈ ɖ		c ɟ	k ɡ	q ɢ		ʡ	ʔ
Fricative	ɸ β	f v	θ ð	s z	ʃ ʒ	ʂ ʐ	ɕ ʑ	ç ʝ	x ɣ	χ ʁ	ħ ʕ	ʜ ʢ	h ɦ
Approximant		ʋ		ɹ		ɻ		j	ɰ				
Tap, flap		ⱱ		ɾ		ɽ							
Trill	ʙ			r						ʀ		ʀ	
Lateral fricative				ɬ ɮ		ꞎ		ʎ̝	ʟ̝				
Lateral approximant				l		ɭ		ʎ	ʟ				
Lateral flap				ɺ		ɺ̢							

Where symbols appear in pairs, the one to the right represents a modally voiced consonant, except for murmured ɦ.

Shaded areas denote articulations judged to be impossible. Light grey letters are unofficial extensions of the IPA.

If phonologists of spoken languages can use the IPA to transcribe any oral language, phonologists of signed languages can use SW to transcribe any sign language.
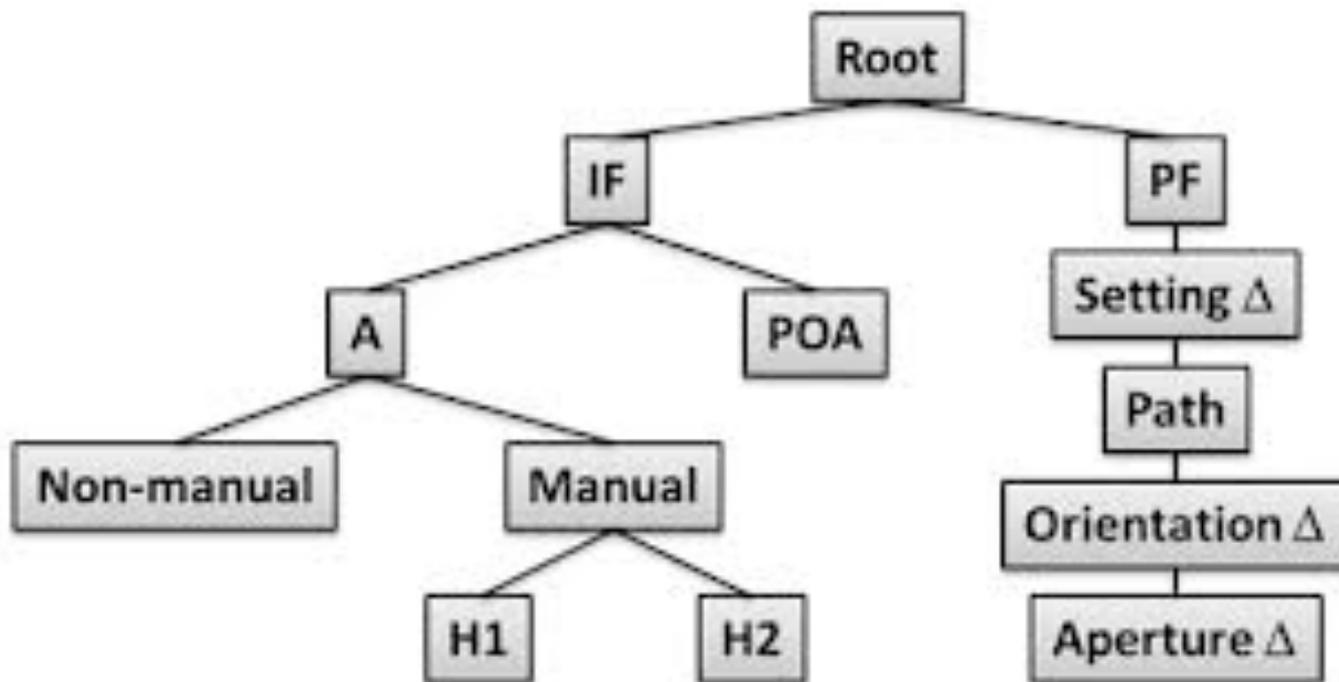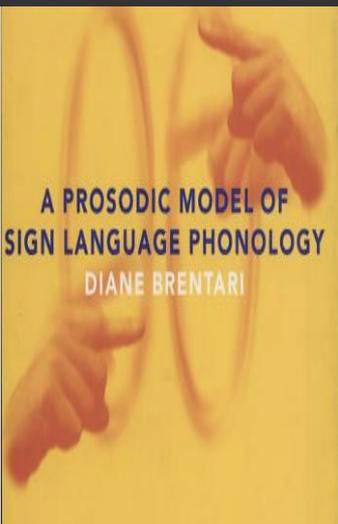
Phonological Patterns

a. Generality

b. Generalization

c. Design
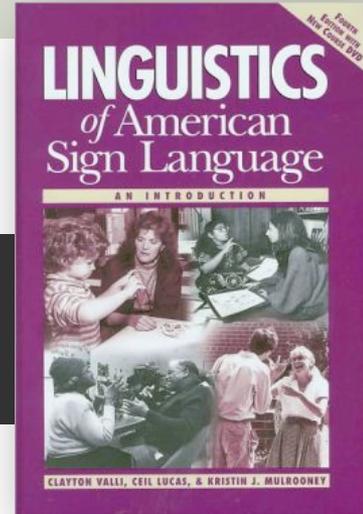
d. Uniqueness

e. Scaffolding

(BERENT, 2013:8)

fə'nɒlɪdʒi

A Prosodic Model of Sign Language Phonology

Phonological Processes

The parts of signs may occur in different orders, and the parts of signs may influence each other. These variations are due to phonological processes (that is, the ways in which the parts of signs interact with each other).

(VALI; LUCAS & MULROONEY, 2005: 40)

Phonological Processes

Costa (2012) has observed phonological processes (assimilation, elision, epenthesis and metathesis) by analyzing signs through the use of SW.

Phonological Processes

▪ Assimilation

▪ This process involves the incorporation on a segment of the features from another which is adjacent to it.

Sinal do padrão adulto	Sinal com processo fonológico de assimilação
++	++ ++
CAMISA. Descrição do sinal: Mão direita horizontal aberta, palma para dentro, com a ponta do indicador e polegar segurar um pedaço da roupa, do lado direito do peito, e balançar as mãos (CAPOVILLA; RAPHAEL, 2008, p. 1154, adaptado).[83]	

(COSTA, 2012:168)

Phonological Processes

□ Elision

□ The process presupposes the erasing of a given trait, and hence the suppression of its all respective subnodes that are linked to the tier in the deleted node.

Sinal do padrão adulto	Sinal com processo fonológico de elisão
CHUVA. Descrição do sinal: "Mãos horizontais abertas, palmas para baixo, dedos separados e curvados a cada lado da cabeça. Mover as mãos para baixo e para cima, várias vezes" (CAPOVILLA; RAPHAEL, 2008, p. 407).	

(COSTA, 2012:169)

Final Considerations

□ If SW is used to transcribe signs phonologically, phonologists from different countries will 'speak' the same language;

□ By speaking the same language, they will be able to find out linguistic universals in terms of phonology;

□ The set of handshapes designed for SW should be used to make up an "IPA" for sign languages.

Thanks for your attention.

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References

BARRETO, M.; BARRETO, R. (2012) **Escrita de Sinais sem mistérios**. Belo Horizonte: edição do autor.

BERENT, I. (2013) **The phonological mind**. New York: Cambridge University Press, 2013.

BRENTARI, D. (1998) **A prosodic model of Sign Language phonology**. Cambridge, MA: MIT Press.

COSTA, R. C. R. (2012) **Proposta de instrumento de avaliação fonológica da Língua Brasileira de Sinais: FONOLIBRAS**. Dissertação (Mestrado). Salvador: Universidade Federal da Bahia, Instituto de Letras.

VALLI, C.; LUCAS, C.; MULROONEY, K. J. (2005) **Linguistics of American Sign Language**: an introduction. Washington, DC: Gallaudet University Press.