

A short introduction to signed languages: features, common misconceptions, and current research

Laurie Lawyer

2 July 2019

Deafness

Some basic facts:

Basic facts

Myths

Universal communication

A 'real' language

Should kids sign?

Language for all

Some basic facts:

- ▶ Most deaf children (90-95%) are born to hearing parents
 - ▶ Hearing parents typically have no access to or experience with signed languages
- ▶ Only deaf children born into deaf families (around 5%) experience 'normal' language acquisition akin to hearing children

Basic facts

Myths

Universal communication

A 'real' language

Should kids sign?

Language for all

Some basic facts:

- ▶ Most deaf children (90-95%) are born to hearing parents
 - ▶ Hearing parents typically have no access to or experience with signed languages
- ▶ Only deaf children born into deaf families (around 5%) experience 'normal' language acquisition akin to hearing children

Language acquisition for all children depends on early exposure to language

- ▶ This is not always available for deaf children...

Basic facts

Myths

Universal communication

A 'real' language

Should kids sign?

Language for all

The deaf experience

...is extremely varied. Every situation is different!

Basic facts

Myths

Universal communication

A 'real' language

Should kids sign?

Language for all

The deaf experience

...is extremely varied. Every situation is different!

- ▶ Differences in degree of hearing loss
 - ▶ mild, moderate, severe, profound
- ▶ Differences in language exposure as children
 - ▶ early exposure to signed languages, late exposure, no exposure
- ▶ Different onsets for deafness
 - ▶ from birth, later acquired hearing loss

Basic facts

Myths

Universal communication

A 'real' language

Should kids sign?

Language for all



- ▶ Different degrees of support
 - ▶ early childhood interventions, speech and language therapists, community groups, schools, etc.
- ▶ Differences in group identity
 - ▶ hearing culture, Deaf culture, or some of both?

Basic facts

Myths

Universal communication

A 'real' language

Should kids sign?

Language for all

Hearing impairments and deafness

Cochlear implants are highly controversial, and not always effective.

- ▶ Benefits:
 - ▶ If implanted early, may vastly increase spoken language abilities
 - ▶ About 30% of kids implanted early show age-appropriate language skills
 - ▶ Could allow integration into main hearing culture

Basic facts

Myths

Universal communication

A 'real' language

Should kids sign?

Language for all

Hearing impairments and deafness

Cochlear implants are highly controversial, and not always effective.

- ▶ Benefits:
 - ▶ If implanted early, may vastly increase spoken language abilities
 - ▶ About 30% of kids implanted early show age-appropriate language skills
 - ▶ Could allow integration into main hearing culture
- ▶ Drawbacks:
 - ▶ Major brain surgery on infants (3+ months)
 - ▶ Possible risk of complications
 - ▶ May not provide major benefits
 - ▶ Less motivation to learn a signed language, participate in Deaf culture

Basic facts

Myths

Universal communication

A 'real' language

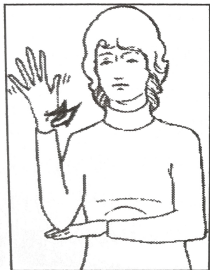
Should kids sign?

Language for all

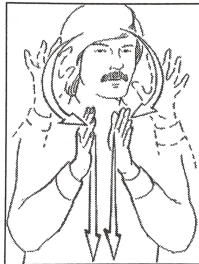
Signed languages

Signs vary across languages, just like words do:

'TREE'



American SL



Danish SL



Chinese SL

Examples of different sign language pairs:

<http://www.spreadthesign.com/>

Basic facts

Myths

Universal communication

A 'real' language

Should kids sign?

Language for all

Where do signed languages come from?



In some cases, they generate spontaneously:

- ▶ A community has a large population of deaf individuals
- ▶ They all need a way to communicate
- ▶ A sign language is invented by the community, naturally
- ▶ As it is passed along to other users, it changes and grows into a fully functioning language

Basic facts

Myths

Universal communication

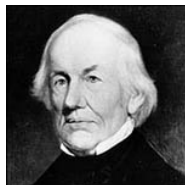
A 'real' language

Should kids sign?

Language for all

In other cases, a language is imported after contact with a community of users

- ▶ American Sign Language (ASL) is historically related to French Sign Language (LSF)
- ▶ New Zealand Sign Language and Australian Sign Language (Auslan) both evolved from British Sign Language (BSL)



Laurent Clerc
(1785 – 1869)

Once adopted, these languages change and grow just like any natural language!

Basic facts

Myths

Universal communication

A 'real' language

Should kids sign?

Language for all

Myths

Myth #2

British Sign Language is just gestured English, or pantomime. It's not a 'real' language.



Basic facts

Myths

Universal communication

A 'real' language

Should kids sign?

Language for all

Signs can be broken down into smaller parts, just like words:

- ▶ Words are composed of linear string of sounds
 - ▶ Types of sounds: vowels, consonants, etc.
 - ▶ Grouped into syllables
 - ▶ Order of sounds and syllables matter!

Basic facts

Myths

Universal communication

A 'real' language

Should kids sign?

Language for all

Signs can be broken down into smaller parts, just like words:

- ▶ Words are composed of linear string of sounds
 - ▶ Types of sounds: vowels, consonants, etc.
 - ▶ Grouped into syllables
 - ▶ Order of sounds and syllables matter!
- ▶ Signs are composed of simultaneously articulated features:
 - ▶ Handshape
 - ▶ Location in space
 - ▶ A path of movement
 - ▶ Palm orientation (in some cases)

Basic facts

Myths

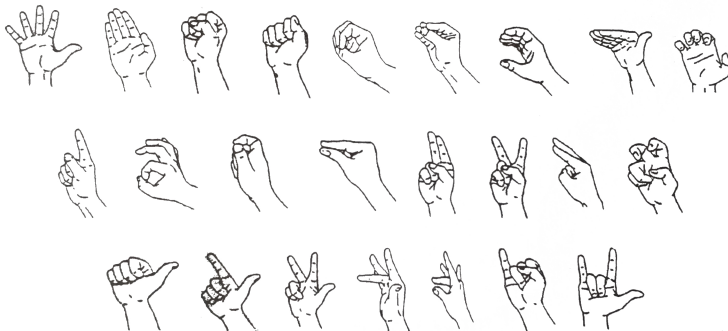
Universal communication

A 'real' language

Should kids sign?

Language for all

Different handshapes:



Basic facts

Myths

Universal communication

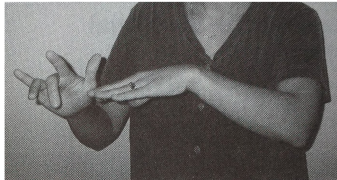
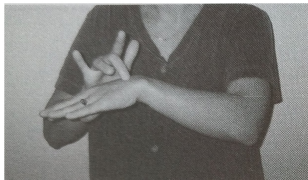
A 'real' language

Should kids sign?

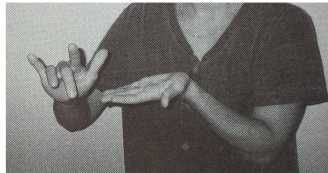
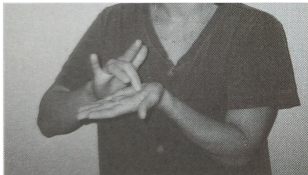
Language for all

Properties

A minimal pair with orientation:



'NUDE'



'RUDE'

Basic facts

Myths

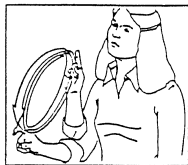
Universal communication

A 'real' language

Should kids sign?

Language for all

Movement contrasts can be grammatically relevant:



ASK [Continuative]



ASK [Incessant]



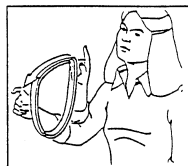
ASK [Durational]



ASK [Punctual]



ASK [Habitual]



ASK [Iterative]

(Emmorey et al., 1995)

Basic facts

Myths

Universal communication

A 'real' language

Should kids sign?

Language for all

Properties

Spatial relationships in signed languages are quite unique!

Grammatical marking of subject / object relationships:



TEACH (me)



TEACH (you)

(Hou & Meier, 2018)

Basic facts

Myths

Universal communication

A 'real' language

Should kids sign?

Language for all

Properties

Signs and pictures can vary in iconic overlap:



Salient



Non-salient

Basic facts

Myths

Universal communication

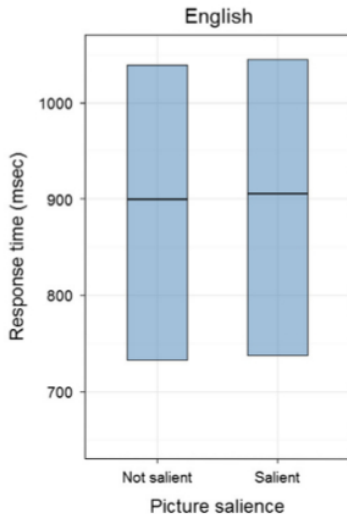
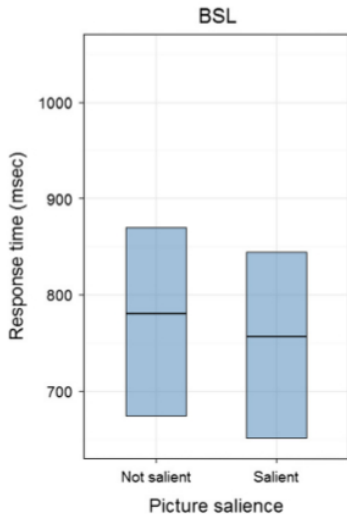
A 'real' language

Should kids sign?

Language for all

Properties

Experiment: Does the sign match the picture?



Basic facts

Myths

Universal communication

A 'real' language

Should kids sign?

Language for all

Research on this is very clear (though the issue is quite nuanced in practice):

- ▶ Delaying first language access has life long consequences
- ▶ Kids exposed to a signed language early learn it just like hearing children learn any spoken language
- ▶ Learning two languages simultaneously isn't unusual – it's called bilingualism

Basic facts

Myths

Universal communication

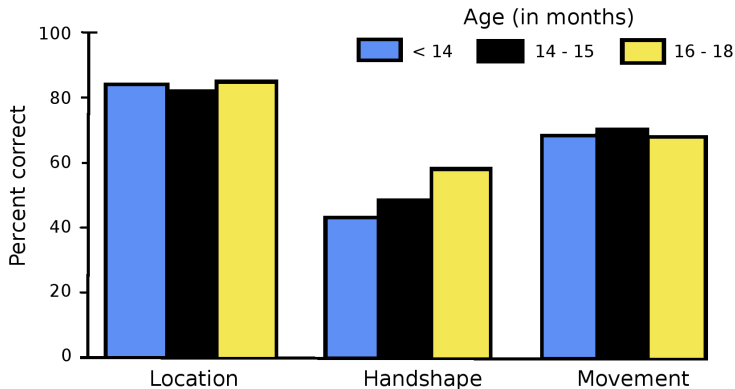
A 'real' language

Should kids sign?

Language for all

Acquiring signed languages

Certain parameters are easier than others to learn:



(Siedlecki & Beonvilian, 1993)

Basic facts

Myths

Universal communication

A 'real' language

Should kids sign?

Language for all

Age of acquisition

When a signer first starts learning a signed language has
lifelong effects on sign abilities!

Basic facts

Myths

Universal communication

A 'real' language

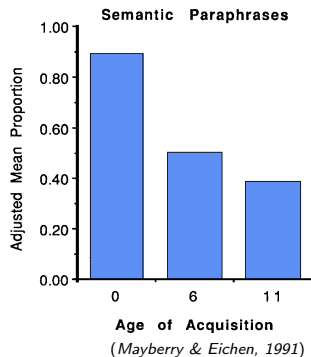
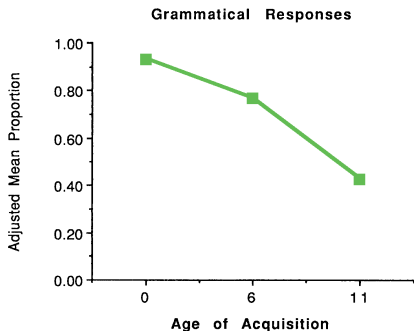
Should kids sign?

Language for all

Age of acquisition

When a signer first starts learning a signed language has lifelong effects on sign abilities!

We see behavioural differences in sign language abilities as adults:



Basic facts

Myths

Universal communication

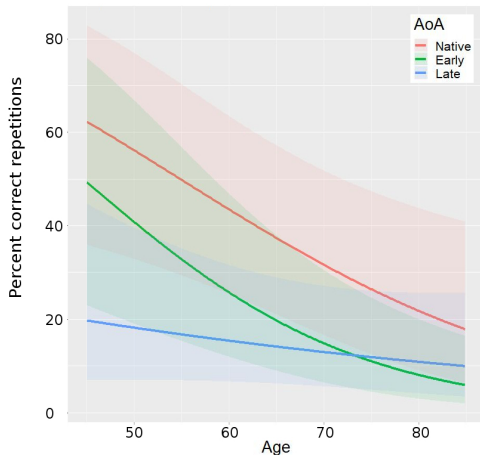
A 'real' language

Should kids sign?

Language for all

Age of acquisition

We also see this in sentence repetition abilities in older signers:



(Corina et al., submitted)

Basic facts

Myths

Universal communication

A 'real' language

Should kids sign?

Language for all

Accessible language is critical

Without early access to an accessible language, *any* language acquisition is endangered. There are lifelong consequences to delaying first language acquisition.

Accessible language is critical

Without early access to an accessible language, *any* language acquisition is endangered. There are lifelong consequences to delaying first language acquisition.

Sign languages are natural languages

They develop in the same way as spoken languages, are acquired in the same way by native speakers, and serve all same needs for a signer as a spoken language would.

Basic facts

Myths

Universal communication

A 'real' language

Should kids sign?

Language for all

Thank you!