The phonology of French Sign Language (LSF): non-sign repetition and discrimination tests
Margaux Cristini, Caroline Bogliotti

To cite this version:

HAL Id: halshs-01178050
https://halshs.archives-ouvertes.fr/halshs-01178050
Submitted on 17 Jul 2015

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L’archive ouverte pluridisciplinaire HAL, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d’enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.
The phonology of French Sign Language (LSF) : non-sign repetition and discrimination tests

Margaux CRISTINI & Caroline BOGLIOTTI
Université Paris Ouest Nanterre la Défense & Laboratoire MODYCO CNRS-UMR7114
mrgx.cristini@gmail.com ; caroline.bogliotti@u-paris10.fr

I. The assessment of LSF skills : a short review

No specific test operational enough that assesses linguistic abilities in LSF. Two tests developed: lack of several methodological features for the first one (too long for caretakers to administer, need to have a strong linguistic knowledge, etc. ; TELSF, 2001) and failure to adapt the second one (LSF Receptive Skills test adapted from BSL Receptive Skills test, 2010).

As a result, caretakers, teachers and others transpose vocal tests to SL tests without taking into account the linguistic specificities of SL.

Cauvin et al., 2010 ; Niederberger et al., 2001; http://www.signlang-assessment.info/

II. Assessment of phonological skills in sign language

In vocal languages, the non-word repetition and non-word discrimination are good markers of phonological abilities. Accordingly, non-sign repetition and non-sign discrimination should be a reliable marker of signed phonological abilities.

Several tests have been created in order to test phonological abilities :
• Non-sign repetition test in British Sign Language
• Language Receptive phonology task in the Sign Language of the Netherlands
• Phonological awareness tasks in the Quebec Sign Language

Montall & al., 2008 ; Hermont & al., 2009; Aubin, 2008 ; Patent & al., 2012

III. Developmental disorders in sign language

Language disorders are not exclusive to speech perception: SL exists also in deaf signers (phonological disorders, difficulty within grammar constructions, production of small sentences with limited grammar, heterogeneity of results). Atypical development can stem from a variety of causes, for instance language impairment or late acquisition of SL.

Montall et al., 2004 ; Margon & al., 2007; Masson et al., 2010; Wulf Asmengen, 2012; Hermont et al., 2013

IV. The current study : to elaborate an assessment tool in order to assess phonological skills in LSF

Participants
• 5 DCDP : Deaf signing Children of Deaf signing Parents, aged from 5;8 to 9
• 2 deaf children with language disorder
• 11 DCHP : Deaf signing Children of Hearing Parents, aged from 4;8 to 8;10
• 20 HCHP : Hearing Children of Hearing Parents, aged from 4;8 to 9

Procedure
• Phonological material
A non-sign is a sign that doesn’t exist and has no signification, but which is built according to languages phonotactic rules
Non-signs are used to ensure that children process tasks without relying on their lexical abilities
Phonological parameters assessed in both experiments : handshape - location - movement – orientation – contact - manual manner - facial expression

• Non-sign repetition test
36 non-signs
3 levels of complexity, defined according to age of acquisition of each parameter involved in the non-sign

level 1 level 2 level 3

• Non-sign discrimination test
56 non-sign pairs
AX discrimination task
Only one parameter modified in each pair of stimuli

V. Main results

Results can be discussed in terms of :
• Sign language development and mastery. Location parameter is the first mastered by young toddlers (Chen-Pichert, 2012)
• Sign language disorder : 2 deaf children with language disorder in DCDP group. Their results are lower than what would be expected for this group
• Perceptive salience of stimuli : hand palm orientation seems to be the most easily perceive

VI. Conclusions and perspectives

Conclusion
The first test to assess phonological features of LSF
Phonological skills depend on sign language knowledge, linguistic environment and sign language development

Perspectives
1. Need to enhance our test which is still experimental : some stimuli have to be improved and more deaf children should be tested
2. Need to describe more accurately phonological acquisition for LSF
3. Need to assess the reliability of phonological skills and their impact in the future language development
4. Evaluate the potential to use this tool to diagnose language disorder