



HAL
open science

Signed languages, vocal languages, literacy: models, representations, challenges.

Elena Antinoro Pizzuto, Alessio Di Renzo, Tommaso Lucioli, Barbara Pennacchi, Paolo Rossini, Virginia Volterra, Claudia S. Bianchini, Gabriele Gianfreda, Giulia Petitta, Elena Tomasuolo, et al.

► To cite this version:

Elena Antinoro Pizzuto, Alessio Di Renzo, Tommaso Lucioli, Barbara Pennacchi, Paolo Rossini, et al.. Signed languages, vocal languages, literacy: models, representations, challenges.. CNR Intl Panel Evaluation Meeting, ISTC-CNR, Sep 2009, Roma, Italy. hal-02554656

HAL Id: hal-02554656

<https://hal.science/hal-02554656v1>

Submitted on 26 Apr 2020

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.



SIGNED LANGUAGES, VOCAL LANGUAGES, LITERACY: MODELS, REPRESENTATIONS, CHALLENGES

Sign Language Laboratory (SLL) Research Team

Elena Antinoro Pizzuto (Coordinator)

Alessio Di Renzo¹, Tommaso Luciola¹, Barbara Pennacchi¹, Paolo Rossini, Virginia Volterra¹, Claudia S. Bianchini², Gabriele Gianfreda², Giulia Petitta², Elena Tomasuolo³, Luca Lamanò⁴

Past and Novel Directions in SL Research

In the '60s - mid '90s:

Following Stokoe's (1960) seminal work on American Sign Language (ASL), the visual-gestural language of deaf Americans, the modern study of SL develops world-wide, including research on Italian Sign Language (LIS), pioneered by CNR scholars (Volterra, 1987/2004, Stokoe & Volterra, 1985). Analyses are based primarily on vocal languages (VL) categories. Major outcome: in spite of their gestural substance, SL possess structural properties comparable to those of VL, and must thus be recognized as fully developed natural human languages. **Comparative cross-linguistic research highlights primarily the similarities between SL and VL.**

1987



2nd ed., 2004



2007



Late '90s to present:

Novel semiotic models of SL. New discourse-, corpus-based studies of French Sign Language (Cuxac, 1996; 2000), LIS (Pizzuto & Volterra, 2000; Russo 2000; 2004) and other SL, challenge the view that SL can be easily assimilated to VL. Besides elements broadly comparable to VL word-like units, SL are made of **Highly Iconic Structures (HIS)**, marked by specific manual and non-manual articulators, most notably **gaze patterns**, where linguistic information is arranged in space and time in a simultaneous, multilinear fashion that has no parallel in VL.

Previous descriptions of SL and former comparisons of SL and VL are questioned. Research strongly suggest that **substantial theoretical-methodological changes in general linguistics are required to account for SL structures, and for the effects engendered by the gestural vs. the vocal modality in shaping the distinctive properties of face-to-face human language** (Russo Cardona & Volterra, 2007; Pizzuto, Pietrandrea & Simone, 2007; Cuxac & Antinoro Pizzuto, in press)



Word-like sign
The child

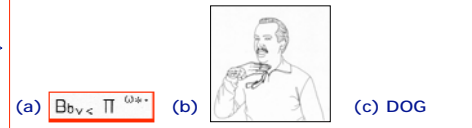


Highly Iconic Structure
The child looks anxiously outside, from the windowsill

Major Challenges: The Written Representation Problem, Deafness, Literacy in Visual vs. Spoken/Written Languages

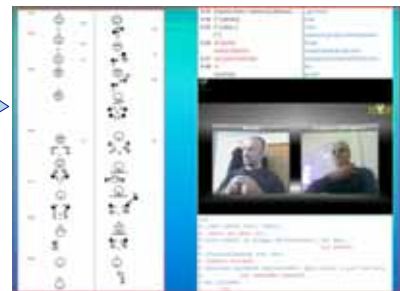
No modern investigation and description of VL has ever been undertaken without appropriate written representations of VL forms that allow scholars and users to reconstruct form-meaning correspondences even in the absence of 'raw data'. **In most SL research this basic requirement still is not satisfied.** The notation systems most widely used either do not represent at all SL units but just 'label' them with VL words, or provide graphic representations that are extremely difficult or impossible to use for representing SL units, and for appropriate analyses of SL discourse.

SL dictionary entry via notation (a) graphics (b), word-label (c):



We have shown that appropriate written representations of SL are crucial for both basic and applied research (e.g. Pizzuto & al, 2006; Antinoro Pizzuto & al 2008; 2009).

We have undertaken a novel experimentation of a writing system devised for SL ("SignWriting": SW, Sutton, 1995): deaf signers and doctoral students of our team are using SW for both transcribing LIS and **composing for the first time in history written LIS texts.** Results have led to **significant advancement in the linguistic analysis of SL structure, and in deaf signers' metalinguistic abilities** (Di Renzo & al, 2006; Luciola & al, 2008; Pennacchi 2008; Gianfreda & al, in press; Bianchini & al, 2009).



Within a **national project** recently funded (**MIUR-FIRB RBNE074T5L**) we plan to include **written LIS in E-Learning environments tailored to the needs of deaf learners, who face very severe difficulties in acquiring literacy skills in spoken/written Italian.** We will explore the hypothesis that **written LIS may be a powerful pedagogical tool** for fostering literacy development in deaf signers.



Most Relevant Projects

- 2009-2012: National Project "E-learning, Deafness, Written Language: A Bridge Of letters And Signs Towards Knowledge Society - VISEL", MIUR- FIRB Initiative, Grant N. RBNE074T5L, € 896.000,00.
- 2005- to present "Writing Italian Sign Language (LIS) with SignWriting". Co-funded by the Rome State Institute for the Deaf & the Association Progetti Felicità, € 26.500.
- 2004-2007: Joint Italian-French CNR-CNRS Project "Language, its formal properties and cognition: What can be learned from signed languages". In collaboration with Christian Cuxac, Université Paris 8 Unit & CNRS UMR-7023. Travel & Accommodation Grant, ~ € 16.000.

Ongoing Ph.D. Dissertations

- Bianchini, C.S. "Cross-linguistic Explorations of SignWriting in the Analysis of SL" (in co-tutorship with Università Paris 8 and Università di Perugia).
- Gianfreda, G. "Conversational Analysis and Italian Sign Language (LIS)", (in co-tutorship with Università di Macerata)
- Petitta, G. "Units of Analysis in Different LIS Discourse Registers" (in co-tutorship with Università per Stranieri di Siena)

¹ Part time, also members of the "Gesture and language development and disorders" team and/or other ISTC groups; ²Ph.D. Students, ISTC-CNR Co-tutorship; ³Post-Doc (FIRB Project); ⁴Collaborator.