Building sign language repositories for linguistic and cultural purposes

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Linguistic diversity, minority languages and digital research infrastructures

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What is it about?

- A sign language hub in the form of an online platform
- Displaying contents on
  - SL grammars and variation
  - SL assessment tools
  - SL life narratives of elderly signers
Who?

• 10 teams, 7 countries, 8 SLs
  – Pompeu Fabra University, Spain (coord.)
  – University of Milan-Bicocca (Italy)
  – University Ca Foscari Venice (Italy)
  – CINI (Italy)
  – CNRS, Paris (France)
  – University Paris 7 Diderot (France)
  – University of Amsterdam (Netherlands)
  – Göttingen University (Germany)
  – Bogaziçi University (Turkey)
  – Tel Aviv University (Israel)
The SIGN-HUB: preserving, researching and fostering the linguistic, historical and cultural heritage of European Deaf signing communities with an integral resource.
Who?

The Sign-Hub: preserving, researching and fostering the linguistic, historical and cultural heritage of European Deaf signing communities with an integral resource
Why?

- No descriptive grammars for (European) sign languages
  - Needed for documentation, research, etc., but also for teaching (L1/L2) → language transmission
  - In an inappropriate format

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Why?

• Little knowledge about variation across SLs in a systematic way
• Without a broader perspective on linguistic structures in SLs, the study of natural languages remains extremely biased towards spoken ones
Diagnosing grammatical impairments in special populations of signers and planning intervention is very difficult without detailed grammatical knowledge.

Why?
Why?

• No comprehensive digital archive of sign languages and of cultural manifestations of Deaf communities:
  – Oral memory of Deaf communities
Concrete goals

- Creation of online grammars of 6 sign languages
- Construction of a sign language Atlas
- Development of tools for sign language assessment
- Creation of a digital archive of elderly signers’ linguistic and cultural heritage
- Creation of a platform that hosts the contents generated in the project

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Grammars

• The SignGram COST Action (2011-2015) provided a **Blueprint** to write reference grammars for (European) sign languages in a **new format**.
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https://www.degruyter.com/view/product/467598
Grammars

- Socio-historical context
- Lexicon
- Phonology
- Morphology
- Syntax
- Semantics
- Pragmatics

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Grammars

• The Blueprint consists of two main parts:
  • Checklist
  • Manual
Grammars: Blueprint Checklist

• **Inventory of all the linguistic features** that a comprehensive grammatical description should contain.

• Based on current knowledge in the field of **sign linguistics**, but it also incorporates expertise in descriptive and theoretical linguistics.
It contains guidelines and background information that provide the necessary information to implement the Checklist.

• **Description** and **definition** of the phenomenon
• Representative **examples** from actual sign languages
• **Tests** that can be used to identify the phenomenon
• **Elicitation materials** that target the phenomenon
• **Bibliographical pointers** to passages/works that deal with the phenomenon
• **Methodological advice**
Grammars: SIGN-HUB

• Implementation of the SignGram Blueprint as an online tool:
  – Writing grammars online, including media

• Production of grammars of 6 SLs in the project: DGS, LSC, LSE, LIS, NGT, TID.

• Resource for further use: repository of SL grammars.

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Grammars: SIGN-HUB

• The SLs involved are unevenly described:
  – A first comprehensive description will be offered
  – New research in unexplored domains of grammar will be triggered
Atlas

- To fill an important gap in typological research
- Content of the produced grammars will be displayed in atlas format
- Complemented with information from other languages outside the project
- Based on grammatical features and constructions (cf. WALS, SSWL)
- Search engine, results shown on map
Feature 139A: Irregular Negatives in Sign Languages

This feature is described in the text of chapter 139 of "Irregular Negatives in Sign Languages" by Ulrike Zeshan. You may combine this feature with another one. Start typing the feature name or number in the field below.

Values
- None: 1
- One: 3
- Some (2-5): 10
- Many (more than 5): 21

Legend: Icon size: Show/Hide Labels

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Section 1.2: Orientation

Question 1.2_Q1

Below, you see a set of different hand orientations that commonly appear in different sign languages. Which hand orientations are used in your sign language? Please select all hand orientations that are considered part of your sign language.

If there are any hand orientations that you missed in the provided set, please upload a picture of a hand showing the missing orientation.
Assessment

• Particular conditions of SL acquisition → special challenges to the diagnosis of language disorders in special populations of signers
• Design of tests to assess language competence in SL pathology
• Lexical and grammatical assessment

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Assessment

• Native signers vs. early vs. late learners
• Individuals with Specific Language Impairment (SLI)
• Aphasic signers
• Elderly patients with neurodegenerative diseases
Assessment

- **Lexical:**
  - Production (Ns)
  - Comprehension (Phonological and semantic distractors)
  - Opposites
- **Grammatical:**
  - Wh-questions
  - Pseudoclefts/Q-A
  - Role shift
  - Agreement

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Subject: Who licks the cow?

Object: Whom does the cow lick?
Life narratives of elderly signers

- Create, analyze and make available a digital archive of life narratives of elderly signers about their individual and collective memories in different European Deaf communities.
Life narratives of elderly signers

- Double goal:
  - documenting the history of Deaf communities since the mid-20th century
  - allowing the study of language change attested from that generation on.
- Recording of interviews, subtitling, partially annotating, publishing on the platform
- Digitalization of recordings of interviews of elderly LSF and ISL signers (U of Haifa)
Life narratives of elderly signers

- Topics:
  - (i) life in the institutes for the Deaf across Europe;
  - (ii) impact of World War 2, Shoah, Civil War, or Cold War on the Deaf community;
  - (iii) situation of women inside the Deaf community;
  - (iv) situation of signers from minorities (ethnic, gay/lesbian);
  - (v) the first encounter with a deaf person from another (European) country.
Life narratives of elderly signers

- 20-25 interviews per country
- Total of 137 interviews
- 70 female, 72 male:
  - under 70 years of age: 10 interviewees;
  - age 70-79: 72 interviewees;
  - above 80: 60 interviewees.
Für Reparaturen von z.B. Clubheimen, sie brauchen Reparaturen und dafür braucht man auch Geld. Dafür braucht man hörende Sponsoren und lädt sie mal z.B. zu Weihnachten ein aber mehr...
Life narratives of elderly signers

- Joint documentary
- Joint publication
Digital platform

- Building of an open state-of-the-art digital platform with customized accessible interfaces.
- Customized content management system.
- Easy to add new functionalities. Open to host new contents that may emerge during and after the project.
- Various types of users.
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Universal access

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A challenge: Identify users’ need

Content Creators
- Grammarians
- Typologists
- Historians/Sociologists
- Psycholinguists

Contents
- Grammars
- Atlas
- Deaf history and Communities
- Assessment

Final users
- Experts in each field
- Deaf Communities
- Students
- Interested people
- General Audience
- Special populations
- Clinicians

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One platform, different modules, all FAIR

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Content Creators: the workspace

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End Users: Accessing the archive

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What to preserve, where to preserve it

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One mission, two digital targets

• Accessible files ≠ Preserved files
  – Quick digital technology allows easy documentation, but it is more perishable than we think. Video formats easily become obsolete.
  – Compressed formats and streaming technology are not adequate for long-term preservation
The challenge: the format of visuals

• The status of our video materials
  – Old videotapes → digitization
  – SL research often relies on unexpensive data (budget, time, storage) → SD vs. HD vs. raw format

• Our solutions
  – One copy for streaming (compressed format)
  – One copy in the best quality possible for long term preservation
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http://www.sign-hub.eu/
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