

# SignWriting and Swiss German Sign Language

## Short Report

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### 1. Research and Products

This project represents the first attempt to write Swiss German Sign Language texts using 'SignWriting' notation. Although there is still no internationally conventionalized writing system for sign languages, 'SignWriting' represents internationally the most widely used system. SignWriting dictionary and schoolroom projects are being carried out in Brazil, Germany, Ireland, Nicaragua, Norway, Spain and the U.S.A. The GS-MEDIA researchers in Zürich, together with a teacher-colleague in Osnabrück are the first to investigate the use of this writing system for sign languages in German-speaking countries.

#### 1.1. Advantages of a Writing System

Being able to write their language would bring to signers the same advantage that written systems for spoken languages bring to speakers, including the following:

- Learners of this language would be able to see from the written form of sentences the word order of the language and much of the grammatical modifications signs undergo in the context of sentences.
- Young deaf children, who learn a sign language as a first language, are able to learn to read via a language that is fully accessible to them. This is in contrast to the educational system commonly used today in which the deaf child learns to read a spoken language which it has not yet (and because of its deafness perhaps never will) fully master. This might facilitate learning to read spoken languages, as, deaf children - having had a first sense of success in 'cracking the code of reading' via their sign language - are reported to be more curious and motivated to learn to read the spoken language of their country.
- A new written register or style of the language would develop, as has occurred for spoken language with written forms. New publications using the written form of sign language, such as those proposed for the first time in this project, will thus be a significant contribution to the development of the range of expression available to the language's users.
- For sign language researchers, SignWriting allows the notation of enough detail to allow morphosyntactic and prosodic research directly on the texts of the language, rather than (as most research now does) through the unsatisfactory method of using spoken language words to represent this visual/corporal language form.

#### 1.2. Products Developed in This Project.

Videotapes were first made of two well-known Bible stories (Noah and the Arc, David and Goliath), told in Swiss German Sign Language. The original signed versions were produced on two videotapes with spoken German translation and subtitles. Accompanying these videotapes are two books with the SignWriting notation of the signed stories as well as a German translation. The books include original color illustrations of the story, a lexicon with illustrations and SignWriting symbols for 50 signs from the story, and a basic introduction to the SignWriting system.

#### 1.3. Research Conducted in This Project

**Linguistic Decisions Made on the Notation of Each Sign.** One consequence of signed languages being corporal-visual languages produced in three-dimensional space is that these languages have many more linguistic components to notate than do spoken languages. Notations for each sign must include a symbol for the handshape form and hand orientation, its location on different areas of the body or the space around the body, the shape and direction of the movement. In addition, there are many distinct configurations and movements of the lower and of the upper face, which are grammatically significant in signed languages.

Often there are alternative ways of notating some of these components. This is analogous to the situation of other languages with no standardized writing system, such as spoken Swiss German dialects. Swiss German speakers wanting to write their dialect can use the Roman Alphabet, but nevertheless often choose to write differently some of the words. In a scientific attempt to make a standardized writing system for a language, it is important that time is taken to make well-thought-out, principled decisions between the alternative notation possibilities.

Analogous to the writing of a spoken language, in writing this sign language, we wanted to notate the ‘accepted pronunciation’ of the produced sign and not variations due to individual style or free phonetic variation. Making decisions about whether a particular notation is an ‘accepted pronunciation’ or an idiosyncratic or phonetic variation often required a great deal of discussion between the project director and the deaf team.

Most other attempts to write a sign language have confined themselves to the notation of the base form of the sign, such as one would find in a dictionary, in word lists, or in short sentences. In this project, we have undertaken to notate long texts of natural signing. Writing these texts has meant also notating many grammatical modifications which are not found in simple lists of vocabulary words or short sentences.

As this project represents a first publication of a written form of Swiss German Sign Language, we wanted to make these first notations as correct as possible. We therefore decided to ask the Californian creator of the writing system (Sutton) as well as an experienced German colleague (Woehrmann) to check our notations of the signed stories and make suggestions of changes where necessary. These exchanges took place through email, phone calls and visit of deaf team members to Osnabrück and a privately financed trip to California to work with Sutton.

**Innovations Made in the Use of SignWriting.** The following new aspects were added by this project to the SignWriting system:

- Lines for ‘Continuous Facial Expression Marking’

A great deal of research on different sign languages has shown that specific facial expressions are often used to add specific semantic or grammatical meanings. In addition, many facial expressions are held through two or more signs, serving as a kind of prosodic marker of phrases or clauses. These ‘held’ facial expressions can also mark discourse referents, i.e. who is speaking or acting in that passage of the text. We decided to highlight these ‘held’ facial expressions by adding a vertical line through the sequence of signs in which these expressions occur.

- ‘Mouthings’

A characteristic of many European sign languages is the use of ‘mouthings’, which are whole or parts of spoken language words which accompany usually nominal signs in certain contexts. In other sign languages, such as American Sign Language, the incorporation of fingerspelling is used for many of the same purposes. Many European signers, including those in German Switzerland, have traditionally not used fingerspelling with their signing.

As recent European research has shown that these mouthings have not only semantic, but also discourse and prosodic functions, we wanted to include some notation of this component in our SignWriting transcriptions. We have thus added to the SignWriting version of the David book a notation of the mouthing produced.

**Refining the German Translation.** To help the reader make connections between the SignWriting transcription and the German translation, we found it necessary to strike a balance between a good German style for older primary children and adult learners of the language, and a sentence order and vocabulary not too different from the signed original.

An additional constraint was imposed by the German translations accompanying the signing on the videotapes. Here, we found we had to make revisions of the original German translation in order for the German in both the spoken and the subtitled forms to be temporally synchronized with the often rapid tempo of signing on the videotape.

## 2. Problems Confronted in This Project

Making the linguistic decisions of the best way to represent phonemically Swiss German signs in running text took much longer than was planned. This was due both to the pioneer nature of the endeavor and the fact that signed languages have many more linguistic components to notate than do spoken languages.

### **3. Application of Results**

The products were shown to participants at the international 'Deaf Way' Congress in Washington, D.C. in July 2002 as well as at the first National Congress of the Deaf in Lausanne in September 2002.

A lecture on this project will be given at the Hochschule für Heilpädagogik Zürich in November 2002.

Two workshops on SignWriting using these products as a base will be given by a deaf project researcher (November 2002, January 2003) for deaf sign language teachers and hearing sign language interpreters.

Plans are being made for a similar workshop to be held in the Suisse romande for deaf and hearing professionals who are very interested in using SignWriting to notate Swiss French Sign Language.

These materials will be used in upcoming linguistics courses in both the sign language teacher training and sign language interpreter training programs of the Hochschule für Heilpädagogik Zürich.

The products will be used with young deaf children at the Zürich School for the Deaf and at the School for the Deaf in Osnabrück, Germany.

The hearing research and director of this project will present this project and products at an invited lecture at the Consiglio Nazionale delle Ricerche of the Istituto di Scienze e Tecnologie della Cognizione in Rome in January 2003.

### **4. Publications**

- The products themselves are publications. (3 copies of the printed book 'Noah' and of the videotapes of both 'Noah' and 'David' are enclosed. One copy of the printer's 'mock-up' of the 'David' book is enclosed. A request has been made to Dore for funds to cover the costs of the printing of the 'David' book. These products all have ISBN numbers and will be listed with the Schweizer Buchhändler- und Verleger-Verband.
- A research report on this project will be submitted to the journal "Schweizerische Zeitschrift für Heilpädagogik"
- A report on this project has been published in "Visuelle Plus", the journal of the Swiss Deaf Association. (Copies included with this report).

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