SignWriting: Sign Languages Are Written Languages

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Abstract

SignWriting is one of the world's scripts, ISO 15924 Sgnw, recognized by the ISO on October 10, 2006:

ISO Codes for Recognized Scripts
http://unicode.org/iso15924/iso15924-codes.html

The SignWriting Spatial Alphabet is a daily writing system for any sign language in the world. It is used by thousands of people worldwide, in some 40 countries. It can be written by hand as a daily script, or typed by computer, making it possible to publish books and web sites in written sign languages.

1. Introduction

Sign Languages are becoming written languages because of SignWriting.

Software can be accessed freely. Thousands of people create their own SignWriting dictionaries and long documents written in the handshapes, movements and facial expressions of their native sign languages, directly on the web:

SignPuddle Software Online
http://www.SignBank.org/signpuddle

The SignWriting Central Web Site provides online SignWriting Literature, Lessons in SignWriting, and an Archive of PDF documents and videos, all free for download:

SignWriting Central Web Site
http://www.SignWriting.org

First invented by Valerie Sutton, an American, in 1974, while living and working in Denmark, SignWriting was first used, in those early years, to write Danish Sign Language. Returning to her native US, Ms. Sutton founded the Center for Sutton Movement Writing in 1974, a 501c3 non-profit educational organization, now located in La Jolla, California:

Center for Sutton Movement Writing
http://www.MovementWriting.org

Lucinda O'Grady Batch, a Deaf native American Sign Language user, together with Valerie Sutton, founded the Deaf Action Committee for SignWriting in 1988, to encourage input from Deaf people who are writing their native sign languages for the first time in history. SignWriting is a successful writing system because of the influence and use by skilled signers. It is evolving naturally as more and more people write, and as Deaf children learn it in schools.

2. Purpose & Background

SignWriting is an alphabet for writing body movement, and was not developed for linguistic research, although linguistic research labs do use SignWriting to study how signers write their language.

History of SignWriting
www.signwriting.org/library/history/index.html

SignWriting was not developed with a prior knowledge of any one sign language, but was instead developed as a writing tool for writing how the body looks while signing. The system includes symbols for writing handshapes, movements, facial expressions, head movement, full-body movement, spatial relationships and punctuation. It can be used to write foreign sign languages, as well as sign languages that are well known. Signers can learn SignWriting symbols, and write any sign they know or see.

Sometimes SignWriting is compared to other linguistic notation systems for recording certain aspects of signed languages, for example the Stokoe system in 1969, and the HamNoSys system in 1988, but Sutton SignWriting was developed for a different purpose, and therefore should not be compared to linguistic notation

systems. The purpose of SignWriting is to create a daily writing system for Deaf and hearing signers, who use Sign Language as their primary language, and to preserve the native sign languages around the world. Linguistic-notation-systems, such as Stokoe or HamNoSys, were not developed as a daily writing system. A comparison is on the web:

SignWriting Linguistics Forum
http://www.signwriting.org/forums/linguistics/

SignWriting is written by hand, or by computer, by signers as young as age five, or any age. It is used in Deaf Education to teach Deaf students to read and write, in Nicaragua, Germany, the USA, Canada, Belgium, Spain and other countries.

SignWriting is also used to preserve the world's sign languages, which are rich and visual languages with sophisticated grammars. Now for the first time, the beauty and deep meanings of Deaf author's poetry can be recorded on paper, and preserved for readers in the next generation.

Who Uses SignWriting?
http://www.SignWriting.org/about/who

SignWriting began by writing facial expressions as well as body movement. Facial Expressions are a part of the grammar of sign languages. Without a way to write facial expressions, one cannot write Sign Language Literature. SignWriting also records other important grammar details, such as spatial comparisons with three lanes, and the details of torso and full-body movement. So this is the first time in history that it is possible to write true Sign Language Literature. A full 140 page novel, written in the movements and facial expressions of Spanish Sign Language (Madrid, Spain), for example, would not have been possible without writing facial expressions and body movement. All 21 Chapters of the Gospel According to John have now been written in American Sign Language. Large documents written in several sign languages are being published in 2008:

SignWriting Library
http://www.SignWriting.org/library

SignWriting Literature Project
http://www.SignWriting.org/literature

American Sign Language Literature Puddle
signbank.org/signpuddle/index.html#sgn-US

3. Brief History

SignWriting stems from Sutton Movement Writing, a complete movement notation system for recording all body movement:

Sutton Movement Writing
http://www.MovementWriting.org

There are five sections to Sutton Movement Writing:

DanceWriting
http://www.DanceWriting.org

SignWriting
http://www.SignWriting.org

MimeWriting
www.MovementWriting.org/animation/mime

SportsWriting
http://www.MovementWriting.org/sports

Gesture Analysis
http://www.MovementWriting.org/science

Sutton DanceWriting was the first section of the system to be developed in the early 1970's, while Valerie Sutton was training with teachers of the Royal Danish Ballet in Copenhagen. Sutton developed a way to write dances on paper, preserving the Royal Danish Ballet's historic Bournonville ballet training system.

While Sutton was teaching the Royal Danish Ballet to read and write dance movement in 1974, a sign language researcher at the University of Copenhagen asked Sutton to record the movements of hearing and deaf people's gestures from a videotape, for a research project. Sutton became intrigued with the beautiful rich sophisticated grammar of Danish Sign Language, and became determined to develop a way to write any sign language in the world, as a daily writing system. This was the beginning of SignWriting. Upon returning to her native country, the United States, Sutton contacted Deaf people and began to work with Deaf people daily to develop a written form that is truly useful. It is because of this collaboration with Deaf native signers, that SignWriting is used today.

SignWriting is 34 years old in 2008. It was written by hand from 1974 to 1984. From 1981

to 1984, the SignWriter Newspaper, the first newspaper in history written in American Sign Language (ASL) and some articles in Danish Sign Language (DTS) was published four times a year, with articles written by Deaf native signers in the US and Denmark. It was published without any computer to help with the preparation of the 20 page newspaper. Each page was painstakingly written by hand with ink pens. It took three months to prepare one issue! Publication of the SignWriter Newspaper was halted in 1984 to focus time on developed SignWriting software to publish by computer:

History of the SignWriter Newspaper
ww.signwriting.org/library/history/hist005.html

The Deaf Action Committee for SignWriting (the DAC) was founded by Lucinda O'Grady Batch with Valerie Sutton in 1988. Deaf people, native to ASL, came together to write their language, and had, and still have, an important influence on the writing system. Today's Deaf DAC members include Lucinda O'Grady Batch, Adam Frost, Stuart Thiessen, Philippe Gallant, Kevin Clark and Darline & Dave Gunsauls:

The DAC
http://www.SignWriting.org/deaf

Videos of Deaf people discussing issues that surround SignWriting are on Google:

SignWriting Videos of Deaf Opinions
http://www.SignWriting.org/video

In 1986, Richard Gleaves developed the first software for SignWriting: a sign language processing program called SignWriter //e and //c, for the Apple //e and //c. It later became SignWriter DOS in MS-DOS and SignWriter Java. The source code for these old programs are on the web and freely available for download:

SignWriting Software Downloads
http://www.SignWriting.org/downloads

SignWriter DOS
www.SignWriting.org/forums/software/sw44

SignWriter Java
www.signwriting.org/forums/software/sw50/

SignWriter Tiger
http://www.signwriter.org

4. SignWriting Projects in 2008

2004-present
SignPuddle Software Development
http://www.signbank.org/signpuddle

SignPuddle Software is the world standard for creating dictionaries and documents in SignWriting. Documents are written in "vertical columns with lanes", directly on the web. The freedom of posting documents on the fly, in Wikipedia-like fashion, has resulted in the spreading of SignWriting all over the world.

Thousands of people from some 40 countries use SignPuddle Online on a regular basis for their students and signing communities. SignPuddle Software is the creative genius of software designer Steve Slevinski, who collaborated with Valerie Sutton, starting in 2004. The Slevinski-Sutton collaboration is ongoing.

SignPuddle 2.0 will be released August 2008, which will include Sutton's International SignWriting Alphabet (ISWA 2008), and the new SignWriting MediaWiki Plugin, which will be used on the Wikipedia site in the future. The SignWriting Image Server (SWIS) will make it possible for programmers to place SignWriting on their own web sites. The source code for the software, and the complete ISWA symbols, can be downloaded on SourceForge, under the GPL and OFL licenses.

Later in this paper, we will describe how we write signs and documents using SignPuddle Software.

2006-present
SignWriting Literature Project
http://www.SignWriting.org/literature

The SignWriting Literature Project employs skilled Deaf and hearing signers to write the world's literature in SignWriting. The initial funding for the project came from the Claire Giannini Fund. Current books being written are: The Gospel According to John in ASL (21 chapters); Sleeping Beauty, Cinderella, Snow White, Cat in the Hat by Dr. Suess, ASL Grammar Lessons in ASL, an ASL Dictionary and an ASL Encyclopedia & Wikipedia.

2002-present
SignBank Database Software Development
http://www.signbank.org/signbank.html

SignBank Software is database software for SignWriting, programmed in FileMaker Pro by Todd Duell. SignBank includes: SymbolBank, for finding and learning symbols in SignWriting, the SignBank Editor and Portal, for searching, sorting and printing dictionaries sorted by Sign-Symbol-Sequence, and DocumentMaker, a tool for publishing books in SignWriting.

1999-present
SignWriting Literacy Project
http://www.SignWriting.org/forums/teachers

The SignWriting Literacy Project began in 1999, by developing four "SignWriting Learning Levels" for teaching children. These four Learning Levels were published in ASL storybooks. The books were then donated to teachers in the Albuquerque Public Schools. Dr. Cecilia Flood, at the University of New Mexico, wrote her dissertation on the experience of teaching Deaf children using SignWriting there. Teachers at the Hodgin Elementary School documented positive experiences. Children gained pride in learning both ASL and English because now there was a way to write both languages. Other schools requested the same materials and joined the SignWriting Literacy Project. Teachers can apply online to receive free donations of SignWriting books and software.

1997-present
SignWriting Internet List
http://www.SignWriting.org/forums/swlist

The SignWriting List is an active internet list of SignWriting users with members around the world. Discussions include technical support on writing signs and symbols, how to use SignWriting software, and techniques in teaching Deaf children. Researchers also join the List to share their research. The SignWriting List Archives provide historic records of SignWriting events, and are open for searching on the web.

5. Dissertations on SignWriting

2002-2007
Dissertation, Jordan University, Ahman
by Dr. Mohammed Mahmod Abushaira
http://www.signwriting.org/arabia

Two research studies using SignWriting in Deaf education in the Middle East:
1. Research Study, Jordan 2007, Jordan University, Al-Amal School for the Deaf
2. Research Study, Saudi Arabia 2002 Alqasseem-Boraydah Deaf Children

Signing Deaf children at the Al-Amal School for the Deaf, in Jordan in 2006-2007, and in the Alqasseem-Boraydah Deaf Children Institute in Saudi Arabia in 2002, were placed in two control groups. One group learned science without a written form for their signed language, and the other group studied science with the aid of written signs in SignWriting. The group that used SignWriting had improved test scores by a wide margin in both studies. Dr. Abushaira is now Assistant Professor, Special Education, King Saud University, Riyadh, Saudi Arabia, and is writing portions of the Koran in Saudi Arabian Sign Language in SignWriting.

December, 2002
Dissertation, University of New Mexico
by Dr. Cecilia Flood

"How Do Deaf and Hard of Hearing Students Experience Learning to Write Using SignWriting, A Way To Read and Write Signs?"

Research study conducted for several years with Deaf children in three Elementary Schools in Albuquerque, New Mexico. Deaf children used the four Learning Levels of SignWriting in a series of children's books developed by Valerie Sutton and the SignWriting Literacy Project. Five classrooms of Deaf children participated, and several teachers learned SignWriting well. Dr. Flood videotaped the children learning and using SignWriting and determined that the children who used SignWriting had a sense of pride in their own language, increased self-esteem and improved communication skills in both written sign language and written spoken language. Download 300 Page Dissertation http://www.signwriting.org/archive/docs5/sw0476-CeciliaFlood-Dissertation2002.pdf

Other studies on SignWriting have been conducted in Nicaragua, Denmark, Ireland, Belgium, Switzerland, Germany, and the US. A 2008 research project is being conducted at a school for the Deaf in Quebec, Canada.

6. Writing Documents in the Visual Symbols of SignWriting in SignPuddle

Adam Frost's American Sign Language video "Why SignWriting?" is **a document written in SignWriting (see pages 6-11 below**). It can be viewed on the web signed on video, with the written ASL transcript directly beside the video.

Go to:
Why SignWriting?

http://www.signbank.org/SignPuddle1.5/searchword.php?ui=1&sgn=5&sid=352&search=why+signwriting&type=any

When you go to the above link, you are viewing the document in SignPuddle Software. Adam wrote the transcript in the visual symbols of SignWriting directly on the web, right where you are viewing it.

SignPuddle software is free for anyone to use. With an internet connection, you can start writing signs and documents in SignWriting:

1. Download Firefox
 http://www.mozilla.org

SignPuddle works best in Firefox, since it was designed for Firefox. Other browsers work too.

2. Open Firefox. Then go to:

SignPuddle Online
http://www.signbank.org/signpuddle

3. Click on the the American Flag, to access the American Sign Language Dictionary, Literature and Encyclopedia Puddles.

4. To learn how to use SignPuddle Software:

View SignPuddle Video Instruction
http://www.signbank.org/signpuddle/help/

or…

Join the SignWriting List to ask questions:

SignWriting List
http://majordomo.valenciacc.edu/mailman/listinfo/sw-l

There are many ways to learn SignWriting online:

Lessons in SignWriting
http://www.SignWrting.org/lessons

or contact us anytime!

Valerie Sutton
Sutton@SignWriting.org

Adam Frost
Frost@SignWriting.org

1. SignWriting
Read & Write Sign Languages
http://www.SignWriting.org

2. SignPuddle
Create SignWriting Documents Online
http://www.SignBank.org/signpuddle

3. SignBank
SignWriting Desktop Databases
http://www.SignBank.org

4. SignWriting List
Technical Support: Ask questions to the List
http://www.SignWriting.org/forums/swlist

5. SignWriting Literature Project
Writing Literature in Sign Languages
http://www.SignWriting.org/literature

Deaf Action Committee For SignWriting
Center For Sutton Movement Writing
an educational nonprofit organization
P.O. Box 517, La Jolla, CA, 92038, USA
tel 858-456-0098   fax 858-456-0020
Skype Names: valeriesutton, icemandeaf
D-Link Videophone: 66.27.57.178

**Video Transcript in SignWriting:**

Hello. My name is Adam Frost. I have been deaf since birth. I use sign language everyday of my life. I have learned English.

It is my second language. My greatest frustration growing up was trying to take my thoughts, which were in sign, and having to write them in English.
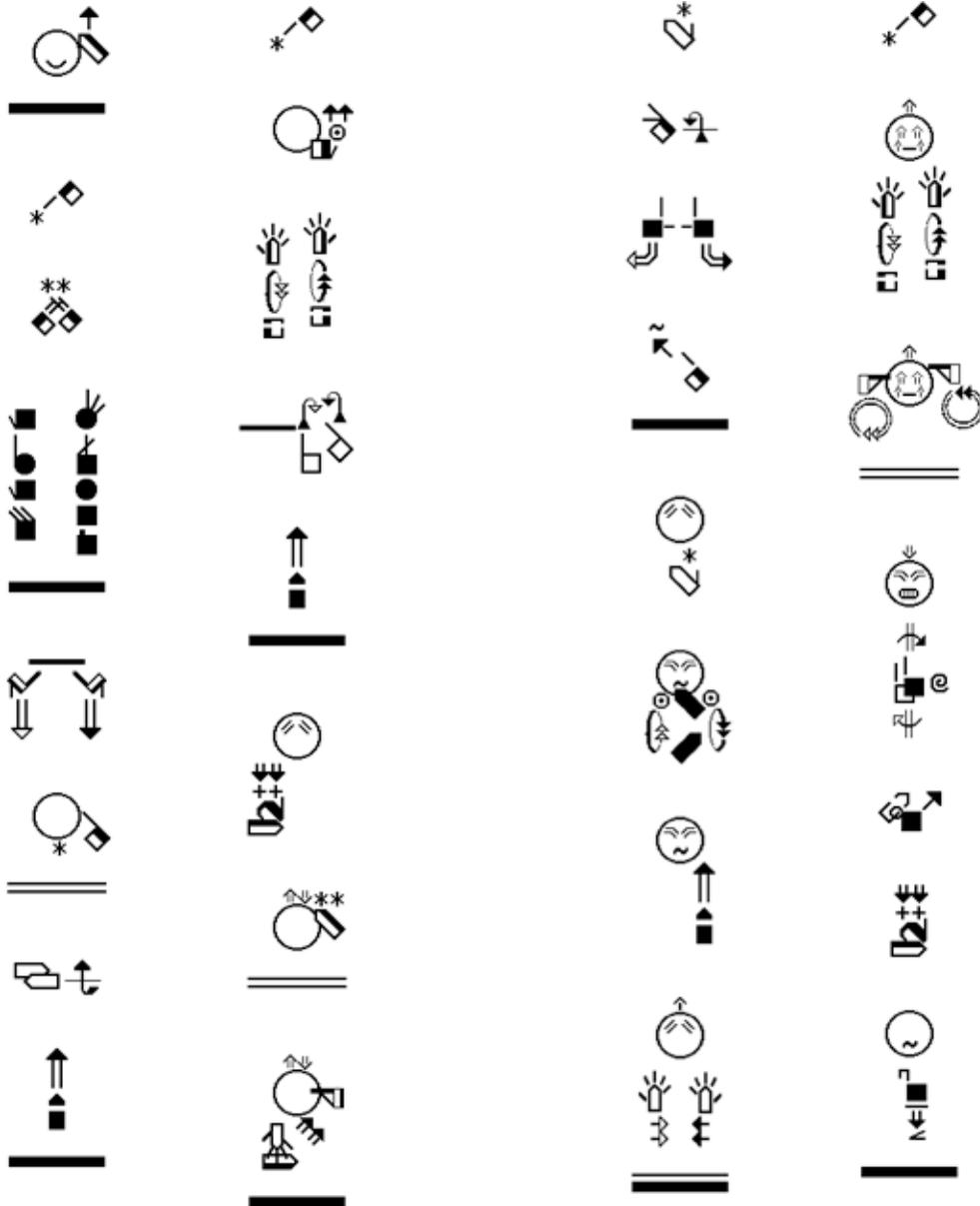
I never liked that feeling of frustration. Later when I found SignWriting, which is a system based on handshapes and …

movements, not based on any sound what so ever, I found that I was able to express my ideas in sign freely without constraint on paper.
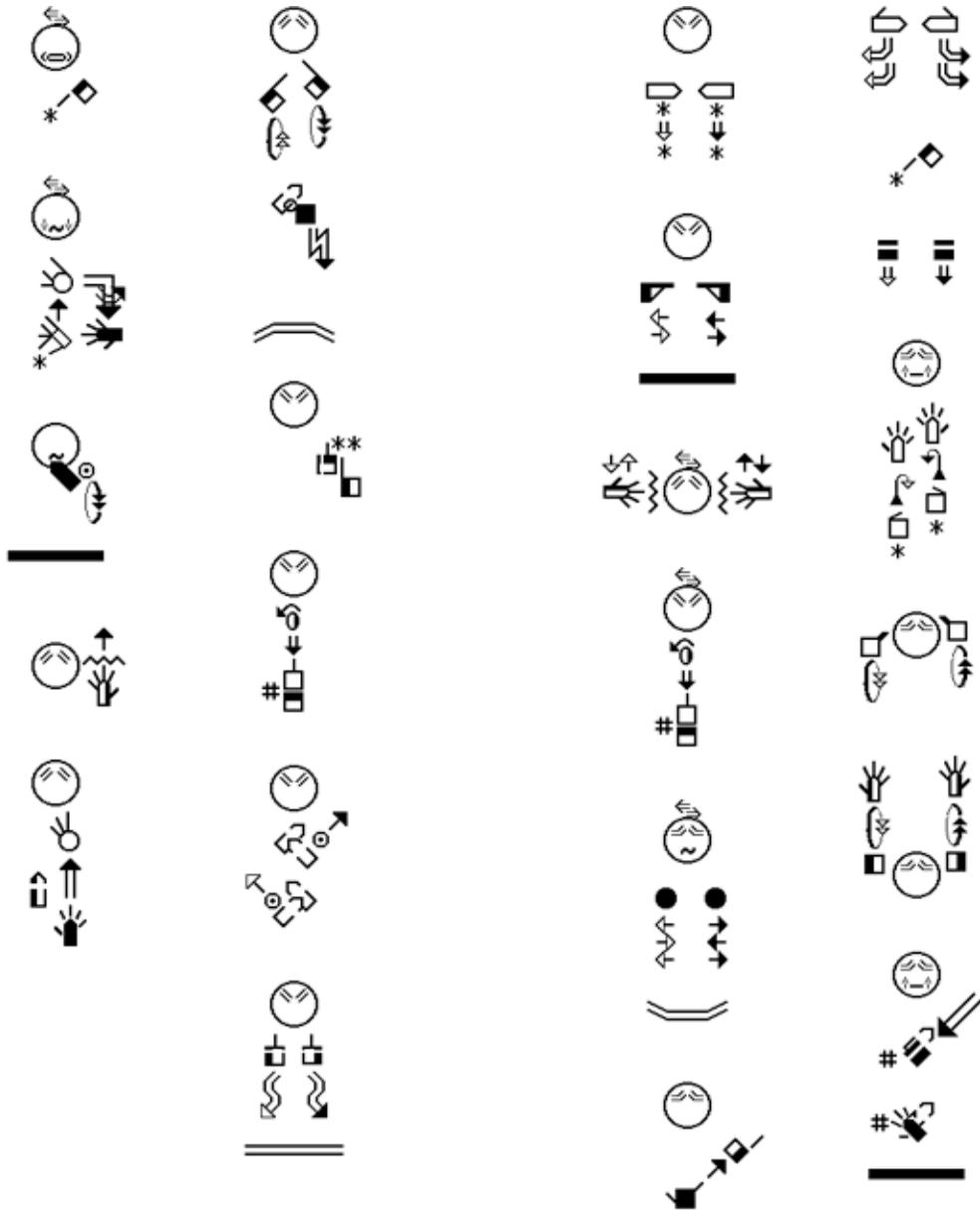
I didn't have to struggle with translating my thoughts into English just so that I could write them on paper. So, some people think that…

sign language is a universal language, but that is not true. I use American Sign Language, which is only used across the United States and Canada.
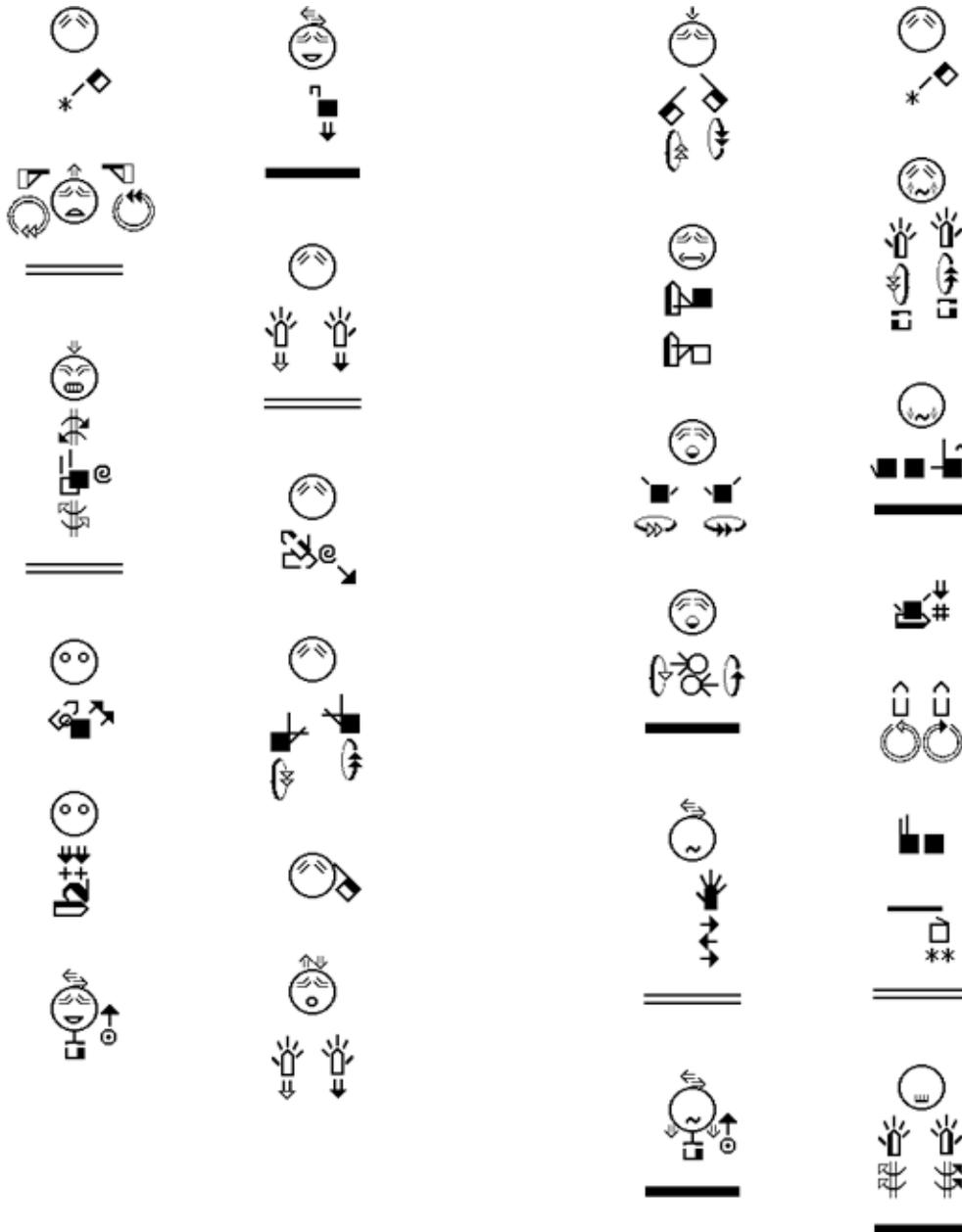
Other countries such as France, Germany, Italy, Japan, China, Korea, and Australia…

all use their own sign language. In fact, American Sign Language and British Sign Language are nothing alike. In all actuality, ASL historically comes from the sign language of France.
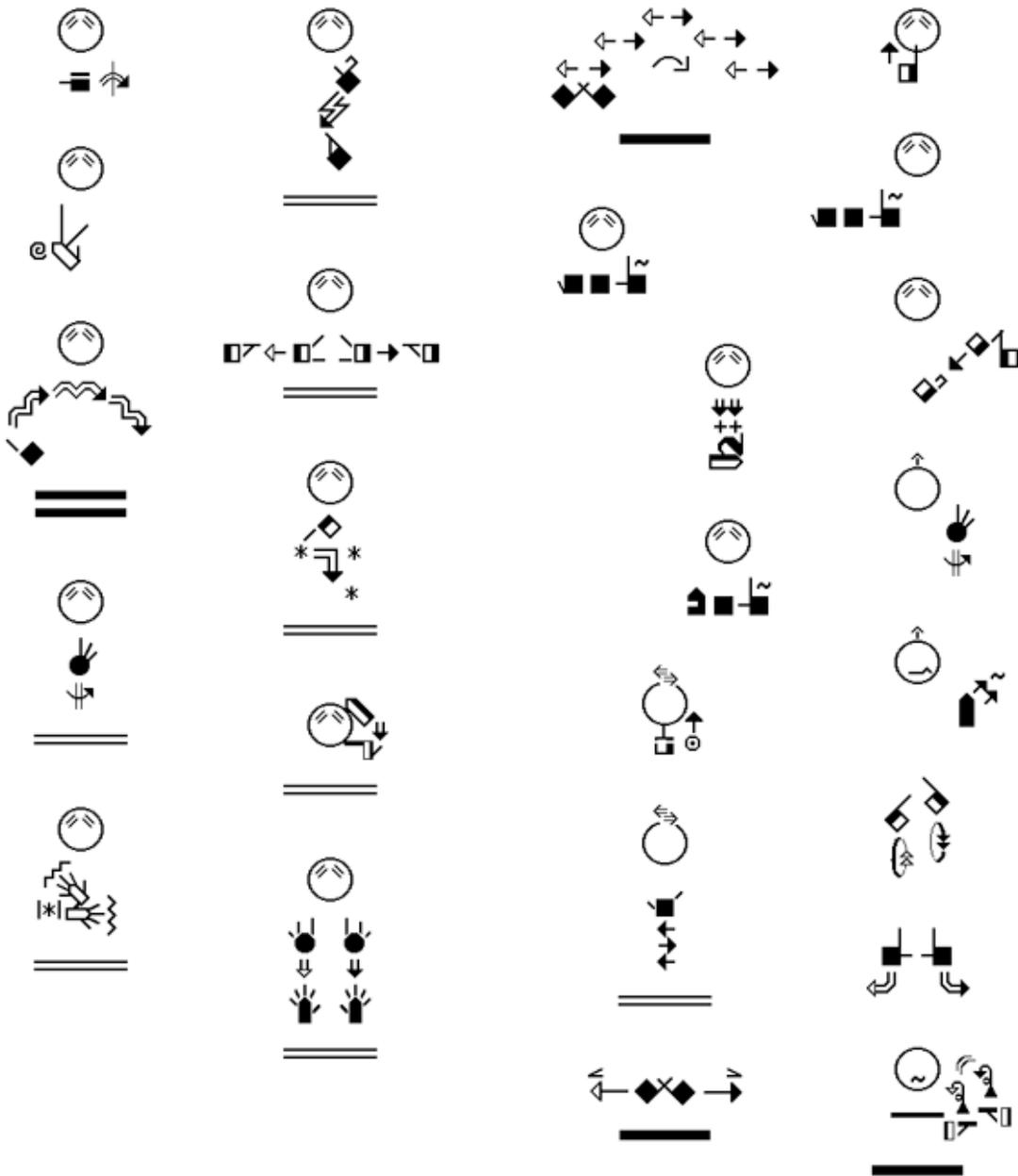
Now, because SignWriting is based on movements, that means that any of these sign languages can be written which…

I like better. Now, I am really glad that I can write directly from my native language. And if there comes a time when what I have written needs to be translated
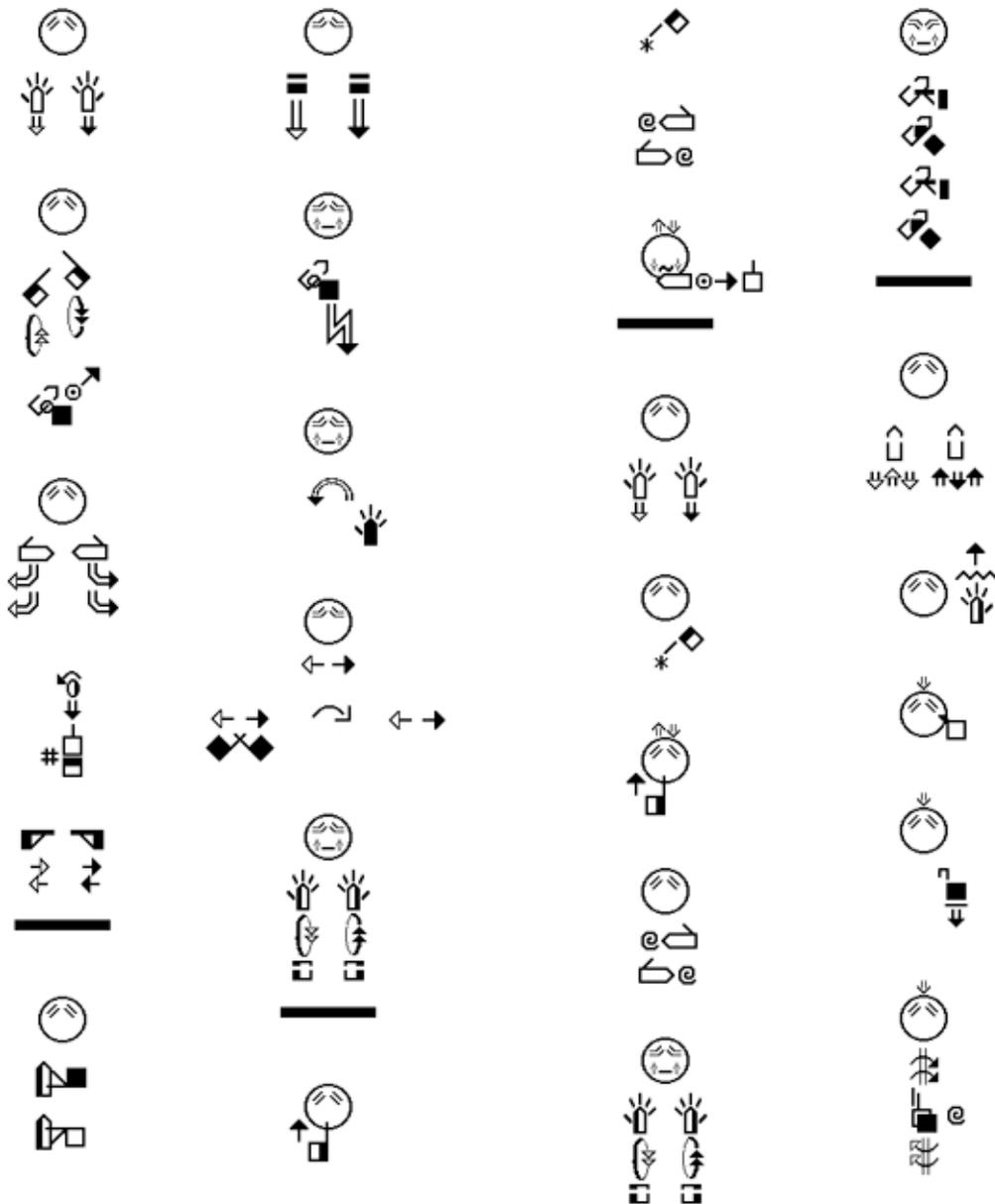
into English, then it can easily be done so. The task of writing can be solely focused on without having to think about how to translate something

because that disconnects the thought patterns.