



# SignTyp: a cross linguistic database and dictionaries for sign languages

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SignTyp is a research tool – a database of phonological and phonetic information. It is also a set of online sign language dictionaries, and the prompts used to create the dictionaries.

## Goals for Online Dictionaries

- To collect 1000 signs each from 15+ sign languages (citation forms). Signers responds to the same prompts cross-linguistically
- To transcribe each sign in SignWriting - a notation system for signs created by Valerie Sutton
- To create 15+ sign online dictionaries

## Goals for Research Database

- To convert Sign Writing transcriptions into a more granular analytic coding to enable phonetic/phonological analysis of the structure of signs
- To provide a comparative study of the phonological structure of 15+ globally diverse sign languages
- To test and develop sign phonology models
- To investigate the role of iconicity in phonological form
- To develop a cognitive model that generalizes over ‘phonological’ form in signed and spoken languages

## Data Collection Process

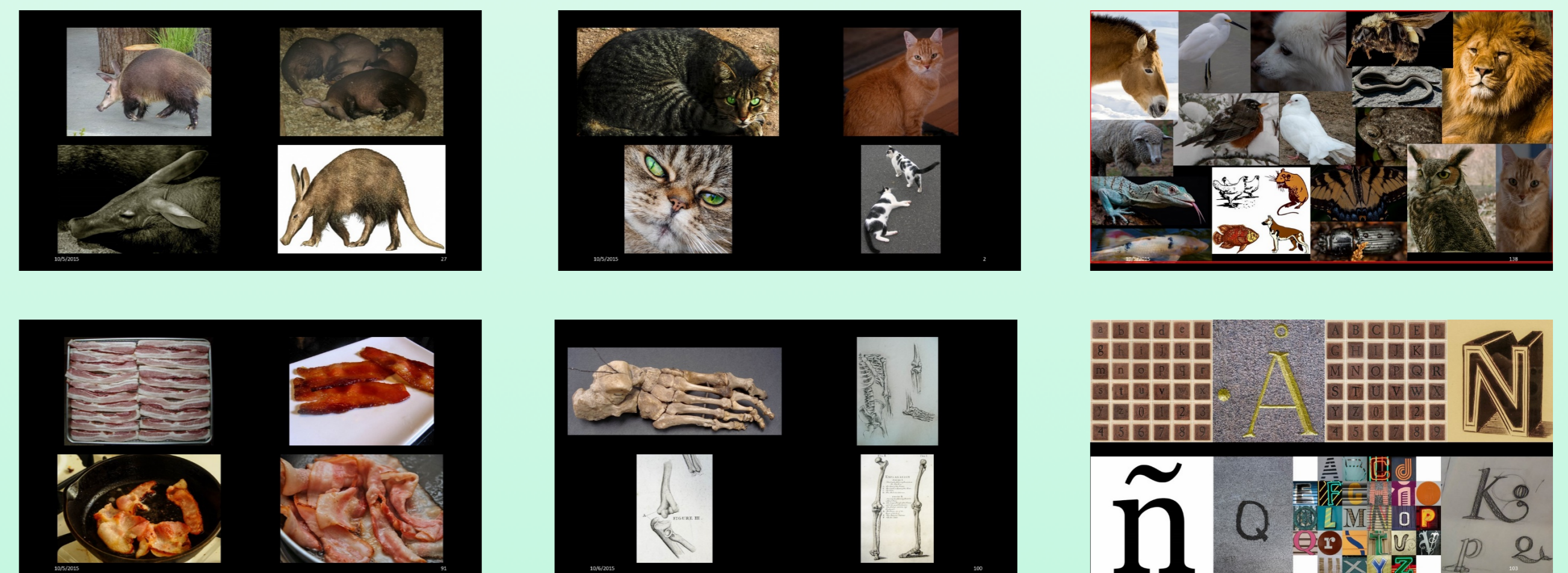
Created more than 1000 prompts using over 5000 photos from personal collection or from Creative Commons licensed photos on Flickr. All prompts stored in pdfs on website. Multiple photos for each prompt helps clarify intended response.

Prompts are the same for all languages – no text. Prompts cover numbers, letters, animals, nature, body, clothing, health, tools, buildings, roles, careers, recreation, vision, space, time, communication.

Signers are shown these prompts (by researchers or onsite collaborators) and their responses recorded. Sign languages collected to date from: Brazil, Croatia, Denmark, Ethiopia, France, Germany, Haiti, Honduras, Italy, Lithuania, Nepal, Nicaragua, Philippines, Portugal, Russia, Rwanda, Turkey, Uganda, United States. Videos stored on YouTube.

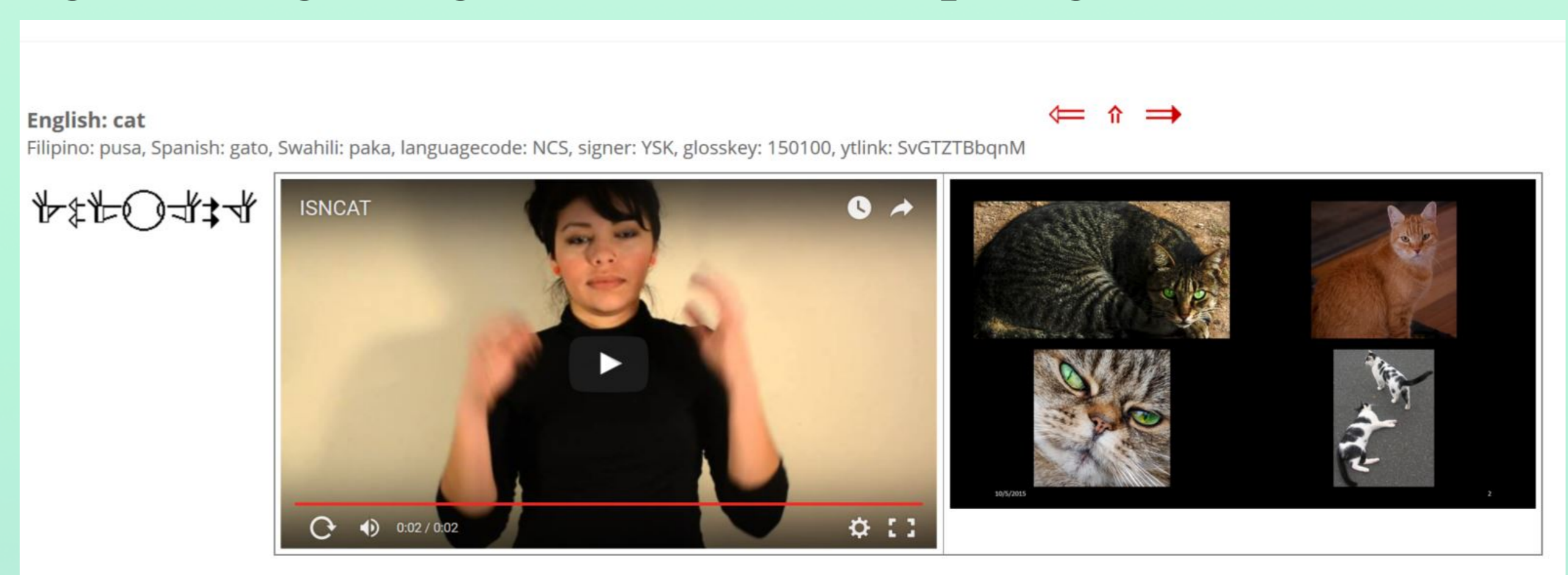
Signs are transcribed in SignWriting.

## Prompt Examples



## Dictionary Entry:

SignWriting + Signer Video + Prompt + glosses etc.



Each entry includes StructuredSignSpelling: information on hand-location-action relationships and sequence

| SignWriting Symbol | Symbol Type | Articulator | Sign Number | Sequence within Sign |
|--------------------|-------------|-------------|-------------|----------------------|
| ○                  | Location    | Right       | 1           | 1                    |
| ○                  | Location    | Left        | 1           | 1                    |
| ✋                  | Handshape   | Right       | 1           | 1                    |
| ✋                  | Handshape   | Left        | 1           | 1                    |
| ↔                  | Action      | Right       | 1           | 1                    |
| ↔                  | Action      | Left        | 1           | 1                    |
| ✋                  | Handshape   | Right       | 1           | 2                    |
| ✋                  | Handshape   | Left        | 1           | 2                    |

The SignWriting symbols and StructuredSignSpelling are used to create a phonological/phonetic database for researchers. A simplified version is shown below:

| Country   | entry id  | Articulator | Seq | variable     | SignWriting symbol | SignTyp translation  |
|-----------|-----------|-------------|-----|--------------|--------------------|--|
| Nicaragua | 150100001 | right       | 1   | location     | S30006             | right cheek  |
| Nicaragua | 150100001 | left        | 1   | location     | S30002             | left cheek   |
| Nicaragua | 150100001 | right       | 1   | handshape    | S1d110             | index and thumb bent at first knuckle, all others extended                       |
| Nicaragua | 150100001 | left        | 1   | handshape    | S1d118             | index and thumb bent at first knuckle, all others extended                       |
| Nicaragua | 150100001 | right       | 1   | action       | S26a06             | move rightward   |
| Nicaragua | 150100001 | left        | 1   | action       | S26a12             | move leftward  |
| Nicaragua | 150100001 | right       | 2   | handshape    | S1d410             | index and thumb bent at first knuckle, all others extended, index contacts thumb |
| Nicaragua | 150100001 | left        | 2   | handshape    | S1d418             | index and thumb bent at first knuckle, all others extended, index contacts thumb |
| Nicaragua | 150100001 | sign        | 0   | languagecode | NCS                |  |
| Nicaragua | 150100001 | sign        | 0   | signer       | YSK                |  |
| Nicaragua | 150100001 | sign        | 0   | glosskey     | Cat                |  |

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Website: [www.signtyp.uconn.edu](http://www.signtyp.uconn.edu)