

Current Issues in Sign Language Linguistics/2

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Morphology

New signs

- Iconically based inventions (constrained by sign language conventions)
- Borrowing from spoken language by means of initialized signs
- Figurative extension of existing signs
- Regular derivation
- Concatenation of signs in compounds

Properties of Compounds

- Phonological changes in English compounds: change in stress pattern:
green hóuse vs. gréénhouse
wet súit vs. wétsuit
- Evidence for compounds as lexical units:
 - modification of first part in a compound is impossible
 - parts of the compound may not be separated
- Special meaning of compounds

Compounding

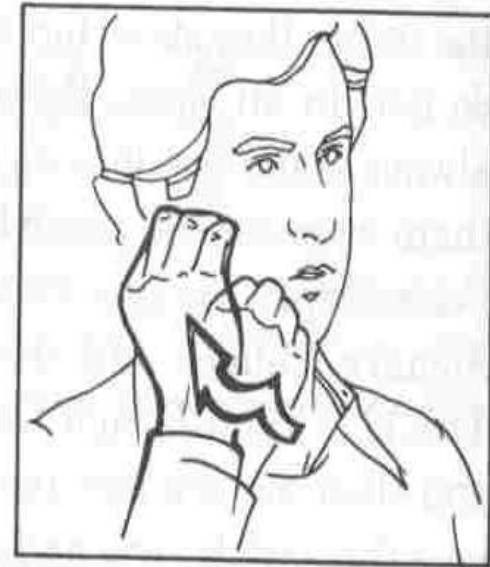
(Klima & Bellugi 1979; Liddell & Johnson 1986)

- Native vs. non-native (borrowed) compounds
- Semantic structure: endocentric vs. exocentric compounds
- Phonological structure:
 - sequential vs. simultaneous compounds
 - characteristic reduction/assimilation phenomena:
e.g. loss of repetition, handshape assimilation
- Tendency to reduce the two signs to one syllable (cf. English *smog*, *motel*)

Compounding

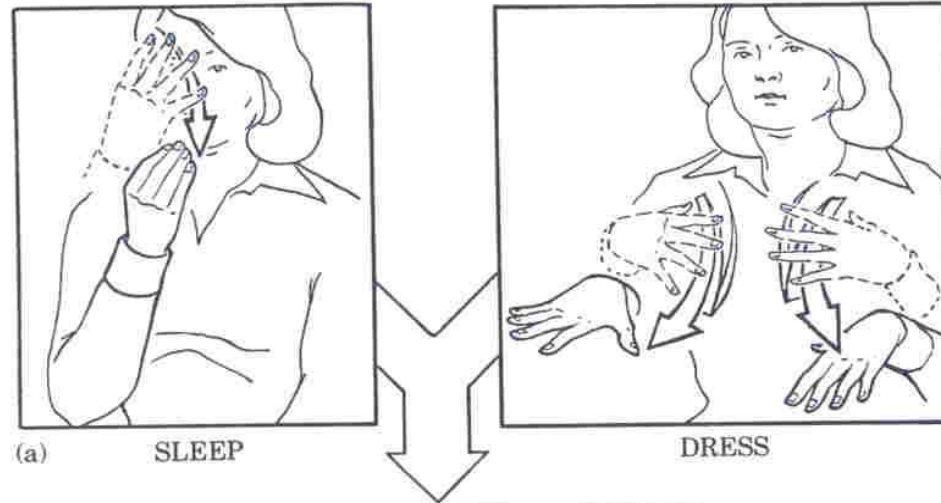


EAT BED



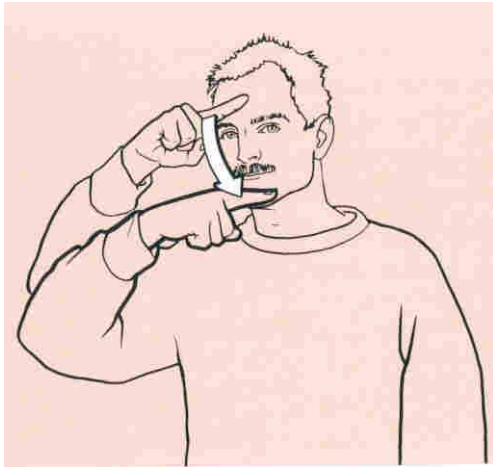
HOME

Compounding

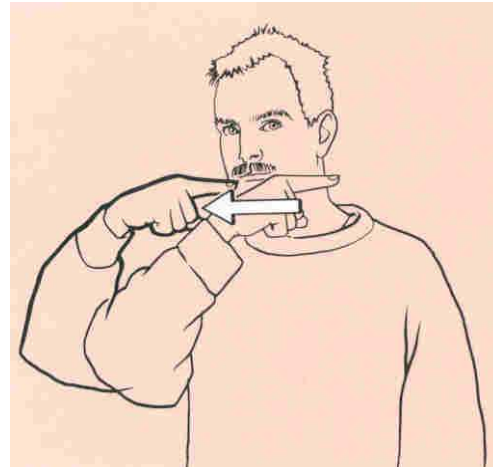


(b) SLEEP DRESS meaning 'pajamas'

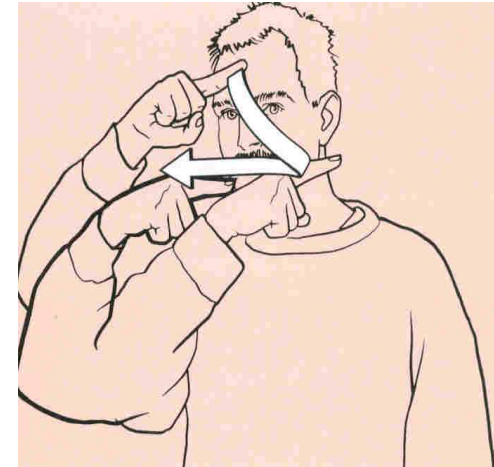
Compounding



‘father’



‘mother’

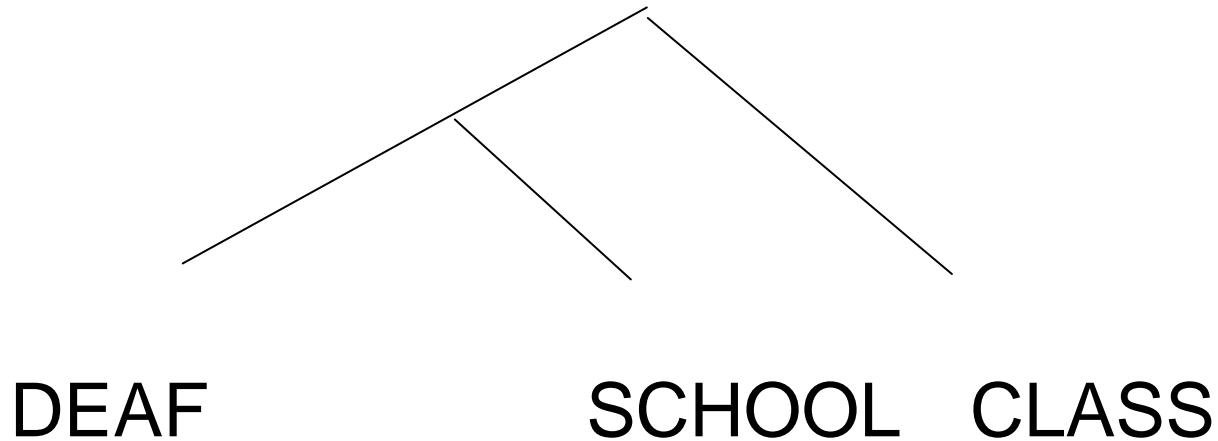


‘parents’

NGT

Compounding Properties

- Recursivity (asymmetric compounds)



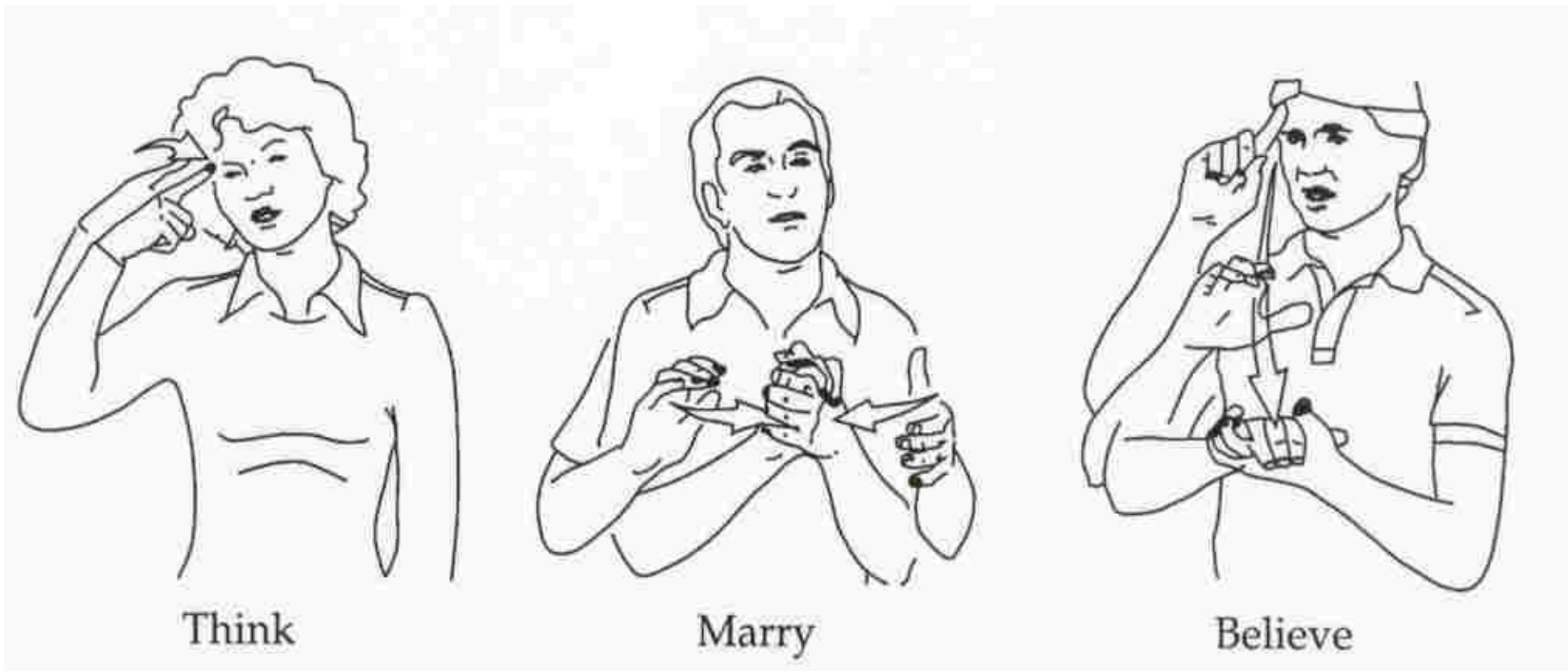
- Coordinate compounds: three or more items:
NECKLACE^BRACELET^RING 'jewelery'

Compounding

- Rhythmic properties of compounds: Temporal compression of the first element
- Loss of repetition of movement
- Anticipation of the non-dominant hand
- Smoothing of transition between signs
- Regressive handshape spreading (merging)

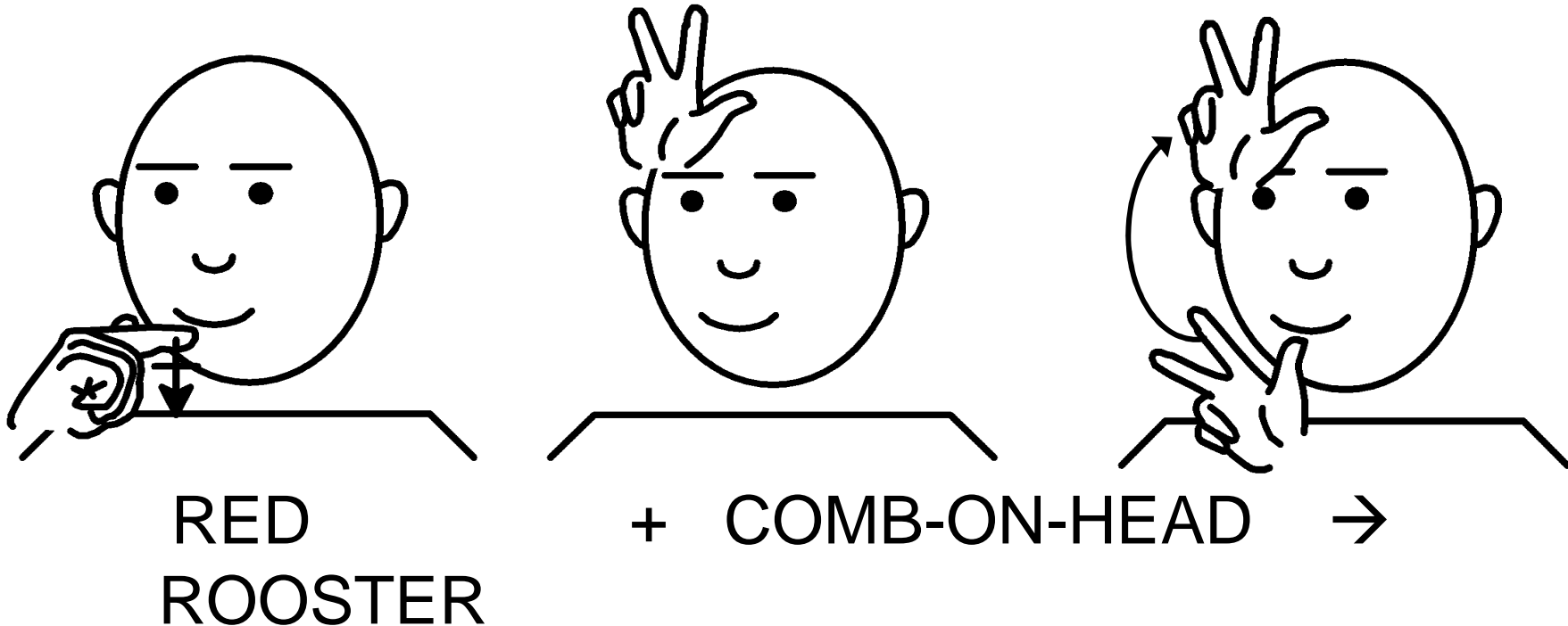
Phonological processes in compounding

Assimilation of orientation in BELIEVE (ASL)

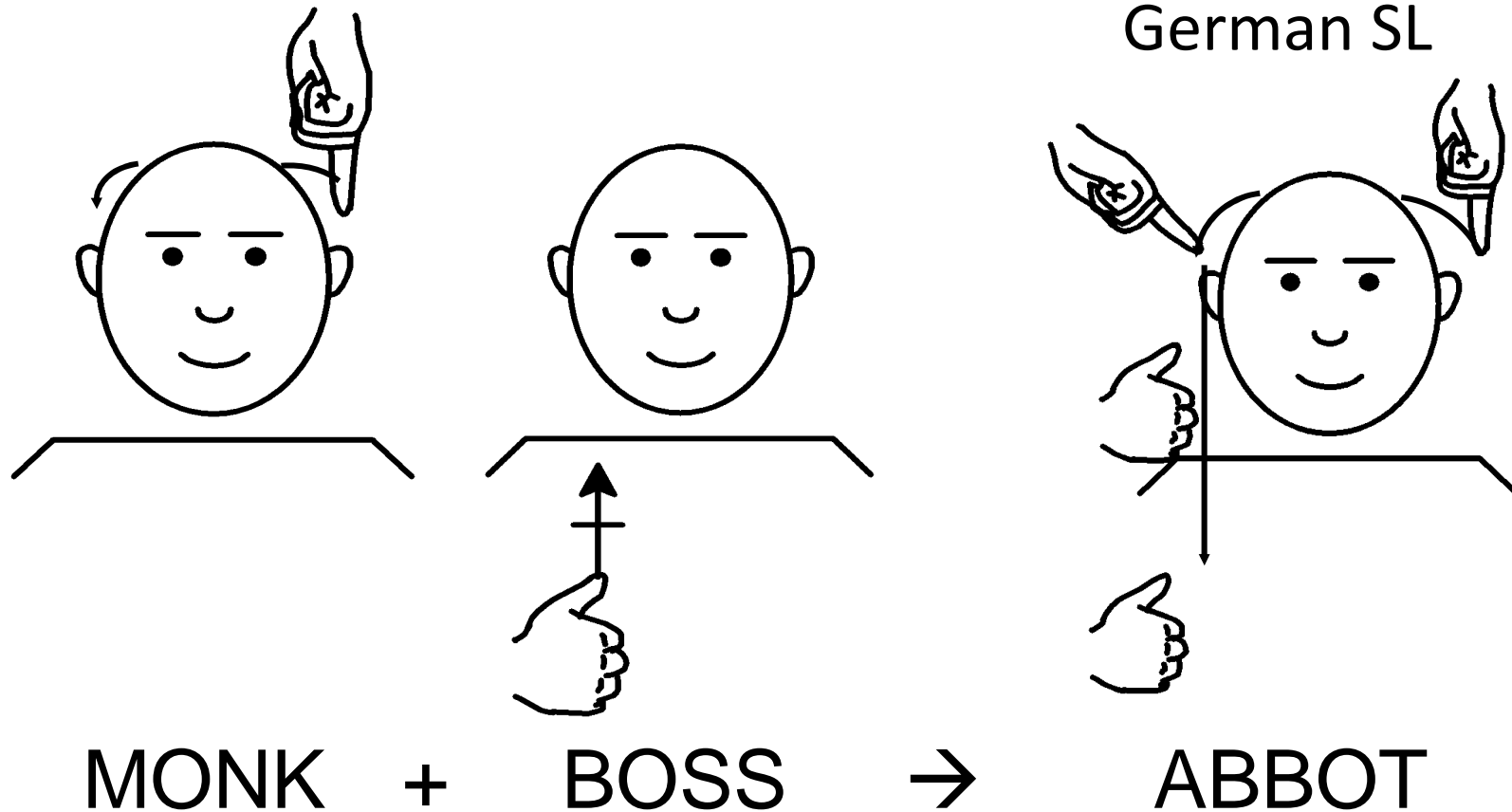


Reduction and Assimilation

Swedish SL



Movement Change



Reduplication in Spoken Languages

- Used predominantly for **aspectual marking** and **plural formation**; e.g. iterative in Tzeltal (a) and plural in Warlpiri (b)

a.	pik ('to touch')	→	pikpik ('to touch repeatedly')
	suh ('to urge')	→	suhshuh ('to urge repeatedly')
b.	kurdu ('child')	→	kurdu-kurdu ('children')
	kamina ('girl')	→	kamina-kamina ('girls')

- Reduplication is (always?) iconic

Reduplication in Number Marking

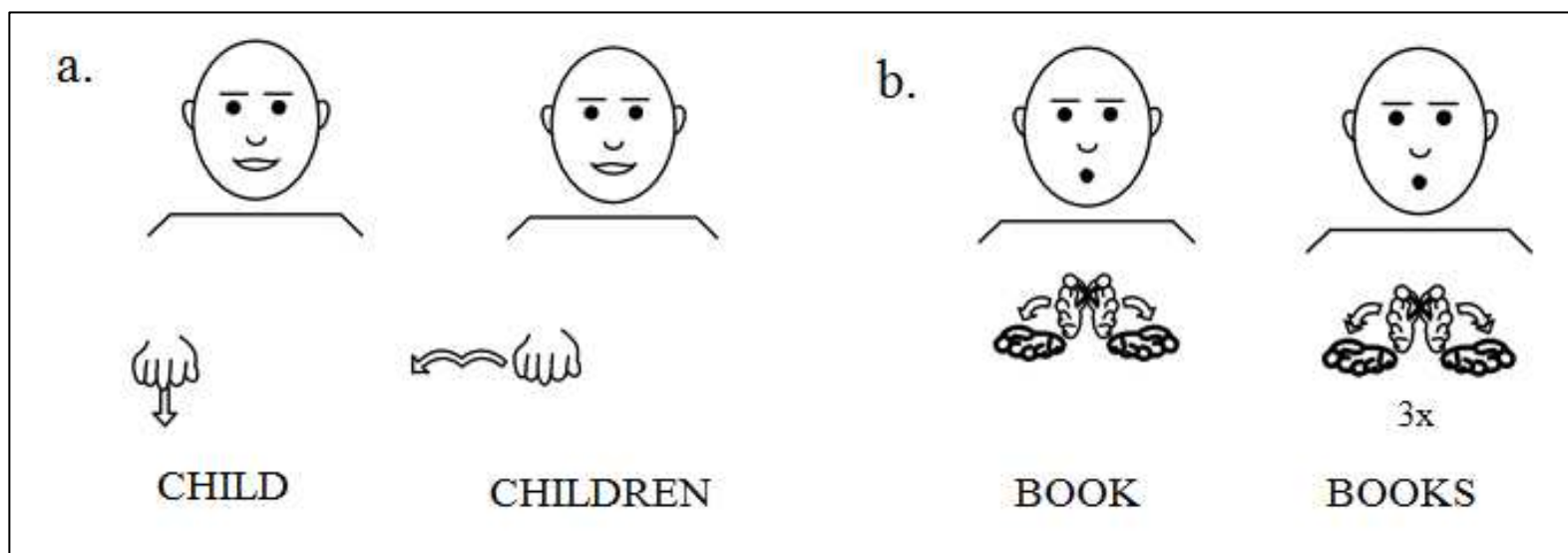
- anak ‘child’ **INDONESIAN**
 anak-anak ‘children’
- buku ‘book’
 buku-buku ‘books’

- púsa ‘cat’ **ILOKANO**
 pus-púsa ‘cats’
- kláse ‘class’
 klas-kláse ‘classes’

Reduplication in Sign Languages

(Pfau & Steinbach 2005, 2006)

- In SLs, too, reduplication is used for aspectual marking and pluralization



Morphology

Number



'child' (sg.)

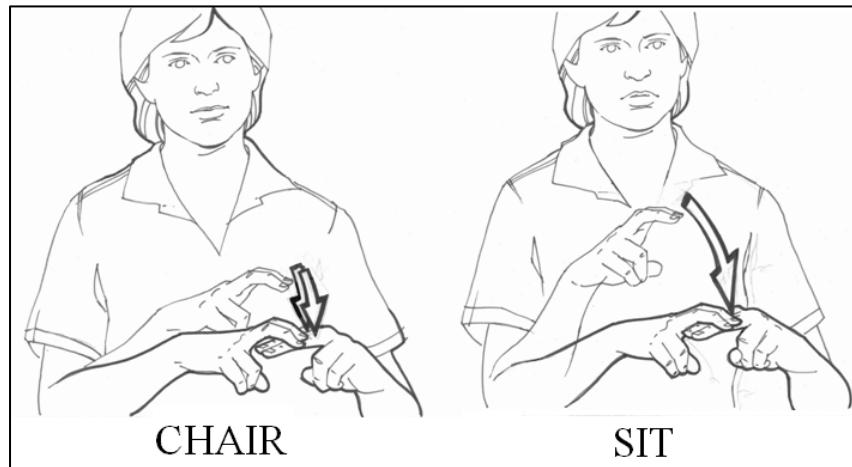


'children' (pl.)

Reduplication: Derivation

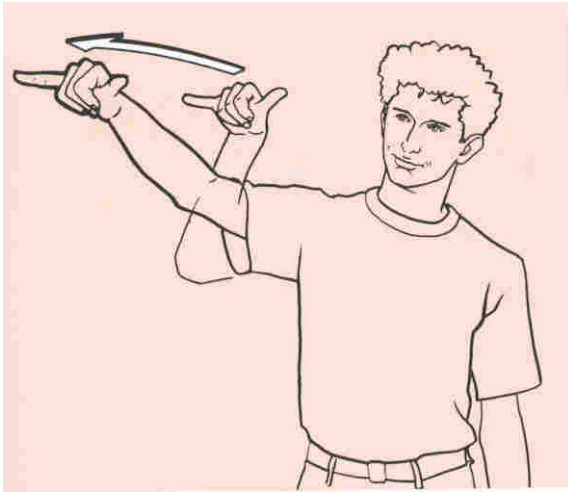
(Supalla & Newport 1978; Kimmelman 2009)

- Noun-verb pairs in ASL, Russian SL, and other sign languages
- Nouns for concrete objects and verbs that express an activity
- Reduplication in combination with modification of movement

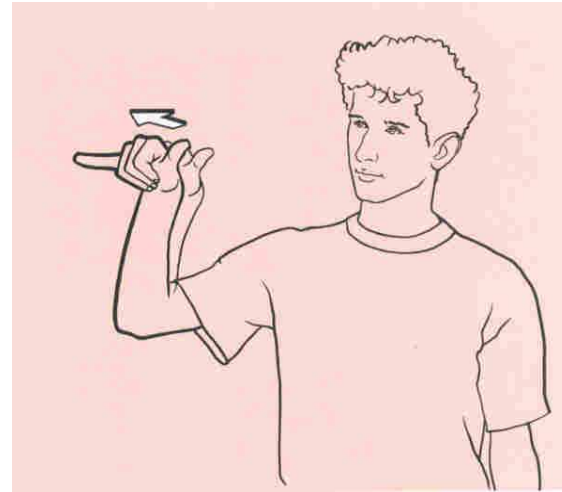


Derivation

Verbs vs. Nouns



'fly' (Verb)



'airplane' (Noun)

Derivation

Verbs vs. Nouns



PAINT



PAINT



ERASE



ERASER

Derivation

- In noun-verb pairs
 - the noun and verb are related in meaning
 - the noun and verb share formational characteristics
- Nouns differ from verbs in frequency (always repeated) and manner of movement (always restrained)
- Relation of movement and meaning in verbs

Non-templatic Derivation

- Prepondarance of templatic morphology in SLs strengthens the view that it is word-based, and not string-based.
- Still, there is sequential morphology:
 - ASL
 - Comparative and superlative
 - Agentive suffix
 - ZERO
 - STRONG
 - ISL
 - SEE
 - NONE
 - Cliticization



TEACH



AGENTIVE

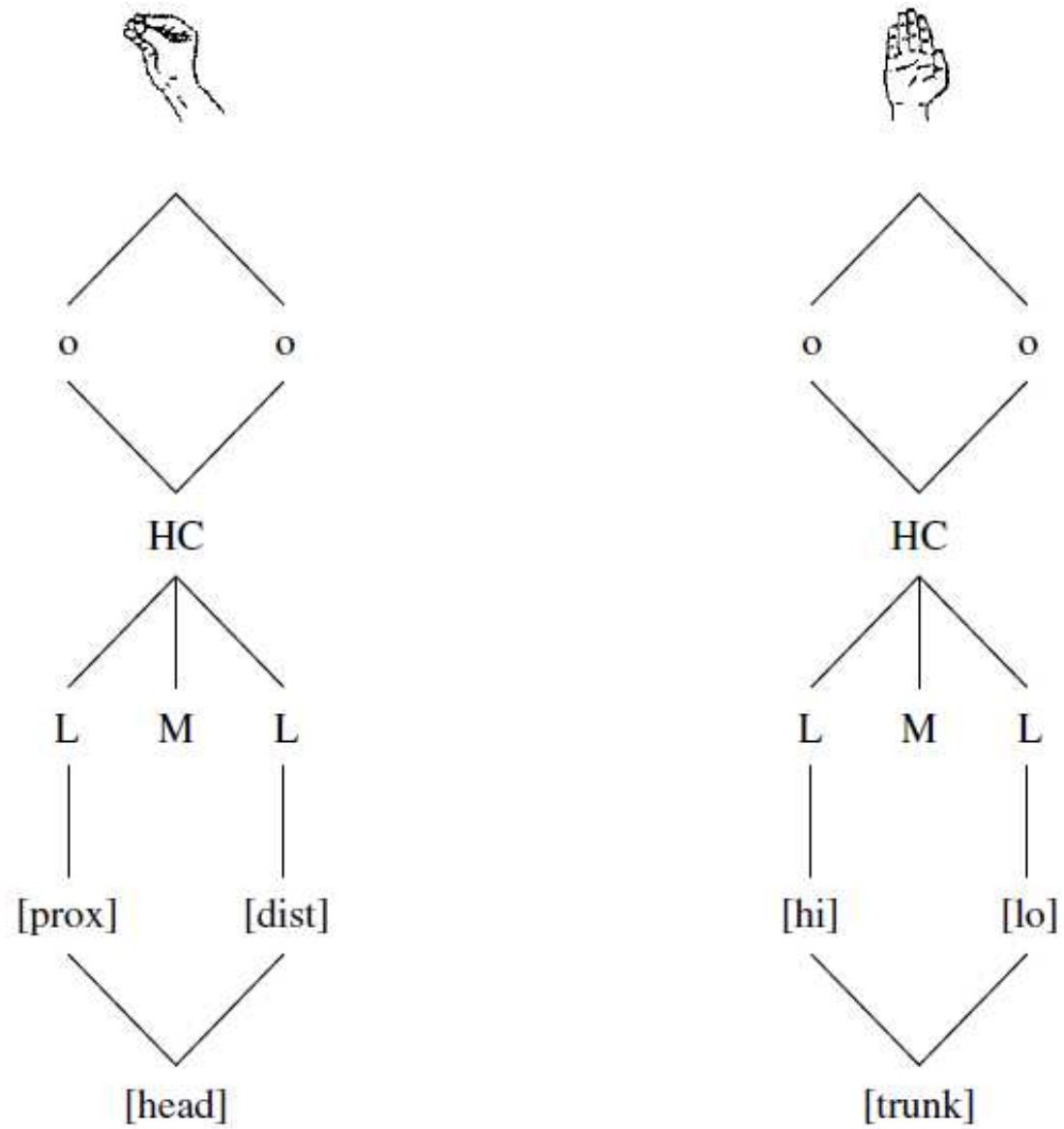
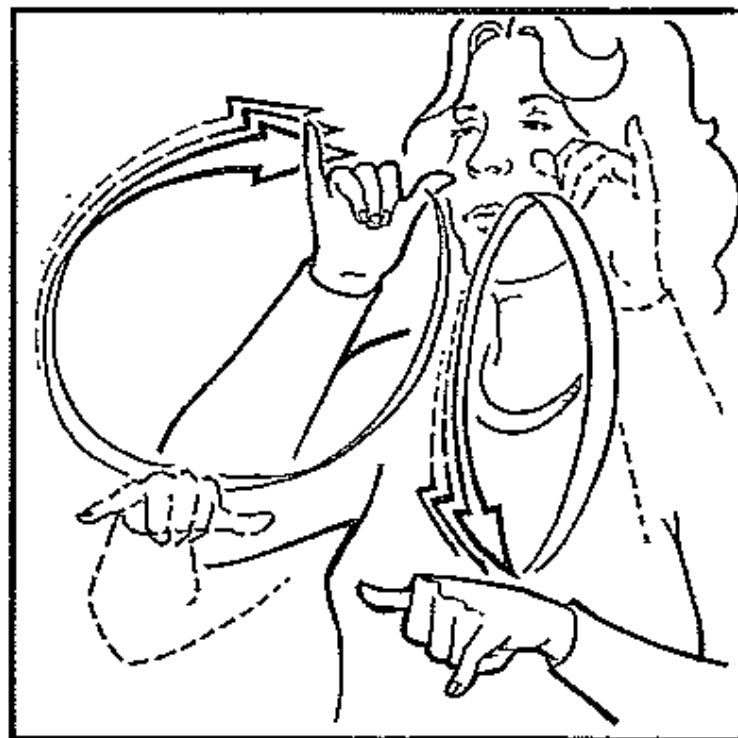


FIGURE 3. ASL suffixed sign: TEACHER.



(a)

SILLY



'characteristically foolish'



(a)

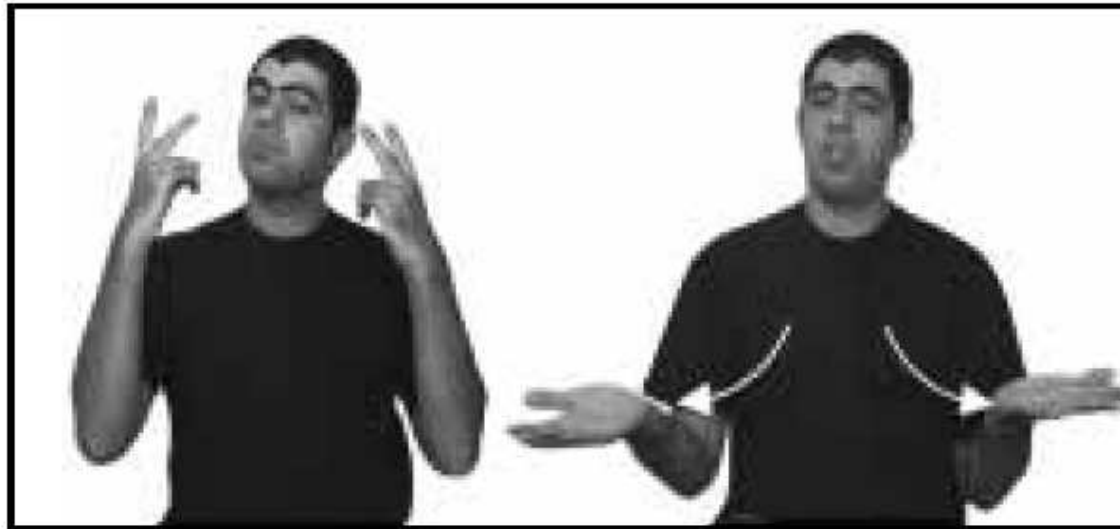


(b)



(c)

Figure 1. (a) SEE (ASL). (b) Independent word: NONE-AT-ALL (ASL). (c) Affixed form: SEE-ZERO, 'not see at all' (ASL)



a. IMPORTANT-NOT-EXIST ('of no import')

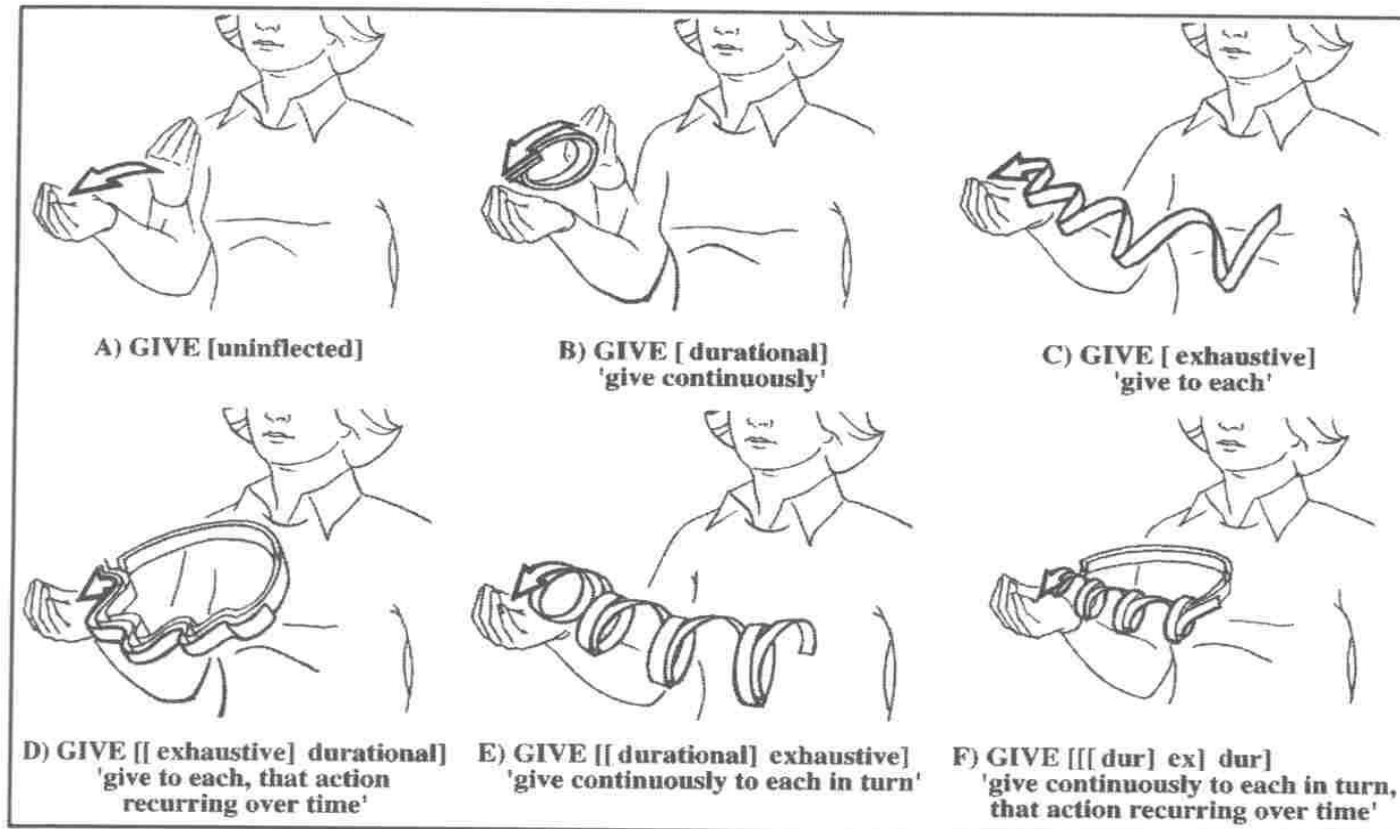


b. INTERESTING-NOT-EXIST ('of no interest')

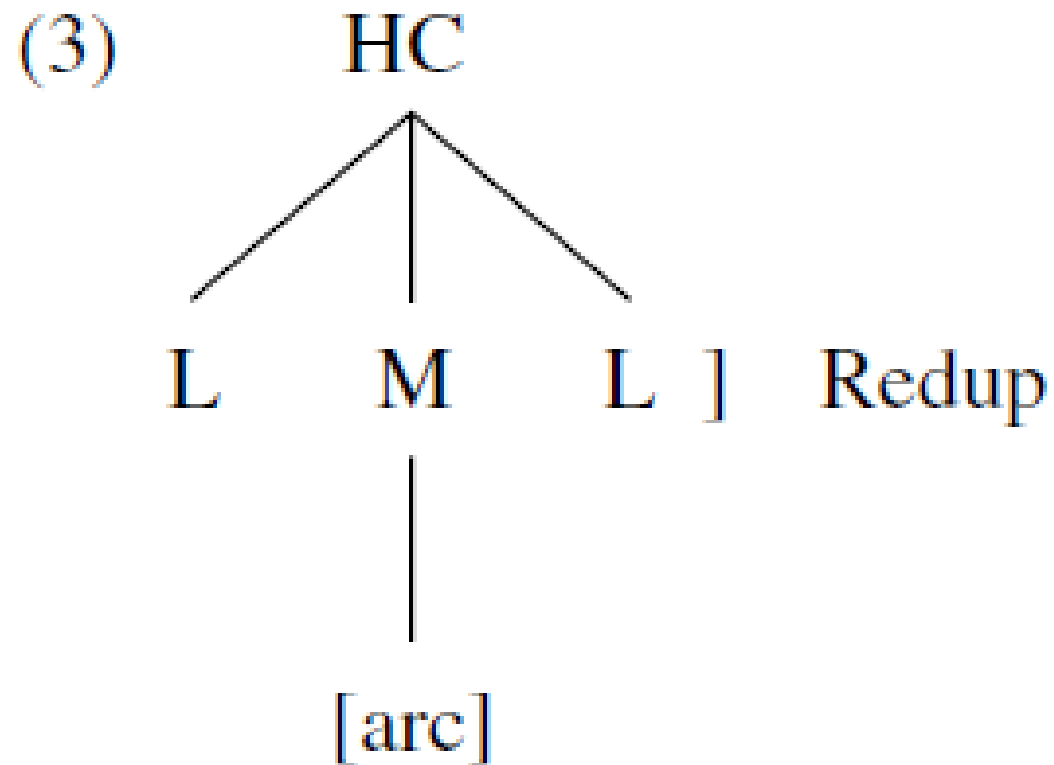
FIGURE 9. Allomorphy in words with the ISL suffix: -NOT-EXIST.

Reduplication

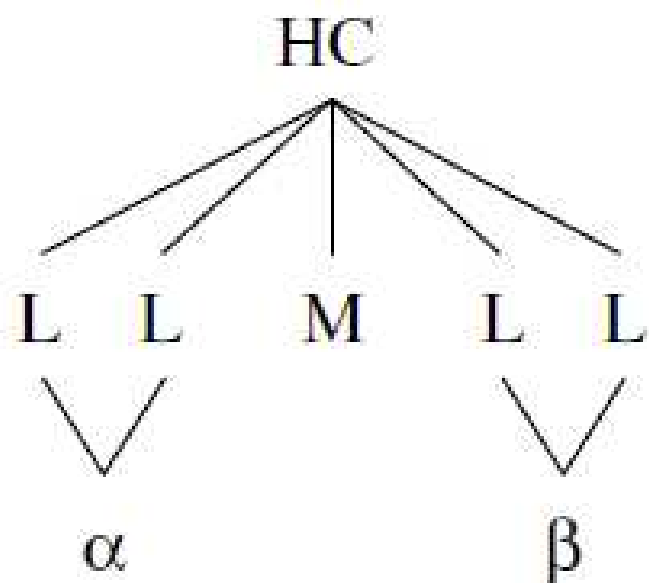
Aspect



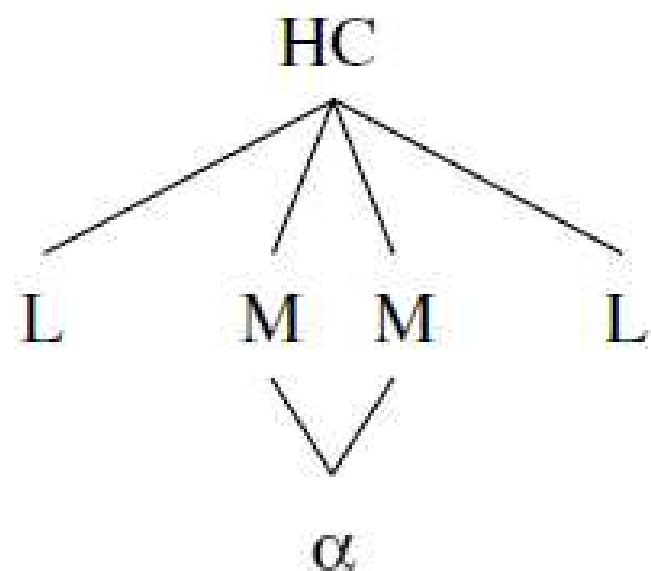
ASL durational aspect



Intensive aspect in ASL and ISL



Intensive in ASL



Intensive in ISL

Aspect

- Inflections for aspect rely on temporal patterning (rate, tension, manner)
- *Habitual*: rapid, non-tense reduplication ('to watch regularly')
- *Iterative*: tense reduplicated movement with hold ('to look at again and again')
- *Continuative*: slow, elongated, continuous reduplications ('to look at for a long time')

(cf. Klima & Bellugi 1979: 291ff)

Simultaneous Derivation

(Liddell 1980; Aronoff et al. 2005)

- Clear cases of derivation by means of sequential affixation appear to be rare in SLs
- The role of mouthings in N/V-pairs
- Non-manual adjectives and adverbials

_____)(

LAST WEEK MY FRIEND HOUSE BUY
'Last week, my friend bought a small house.'

_____mm

MAN INDEX_{3a} WALK
'The man is walking in a relaxed manner.'

Nonmanual adverbials



BSL 'mm'



ASL 'th'



ASL 'careless'

Nonmanual adverbials

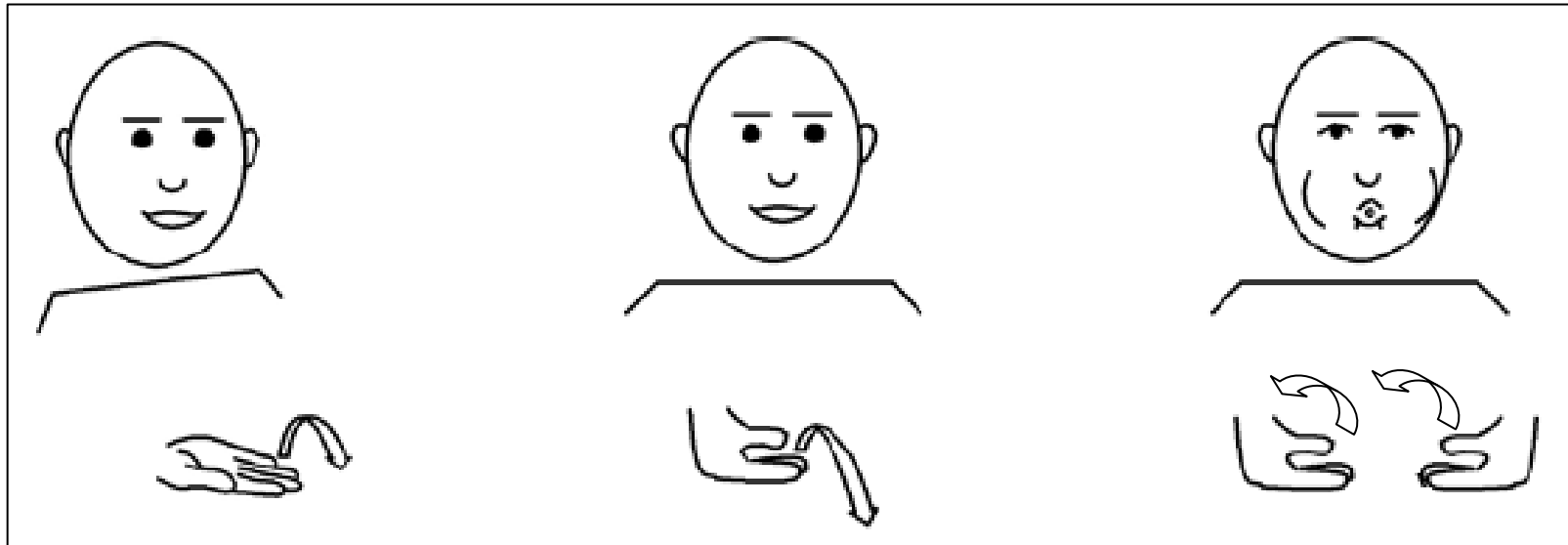


MAN

q
mm
FISH [I:continuous]

ASL 'Was the man fishing with enjoyment?'

Simultaneous Morphological Processes: An Example



GIVE
(citation form)

GIVE-CL
(e.g. a book)

$_2$ GIVE $_1$ -CL
(e.g. you give me
a heavy book)

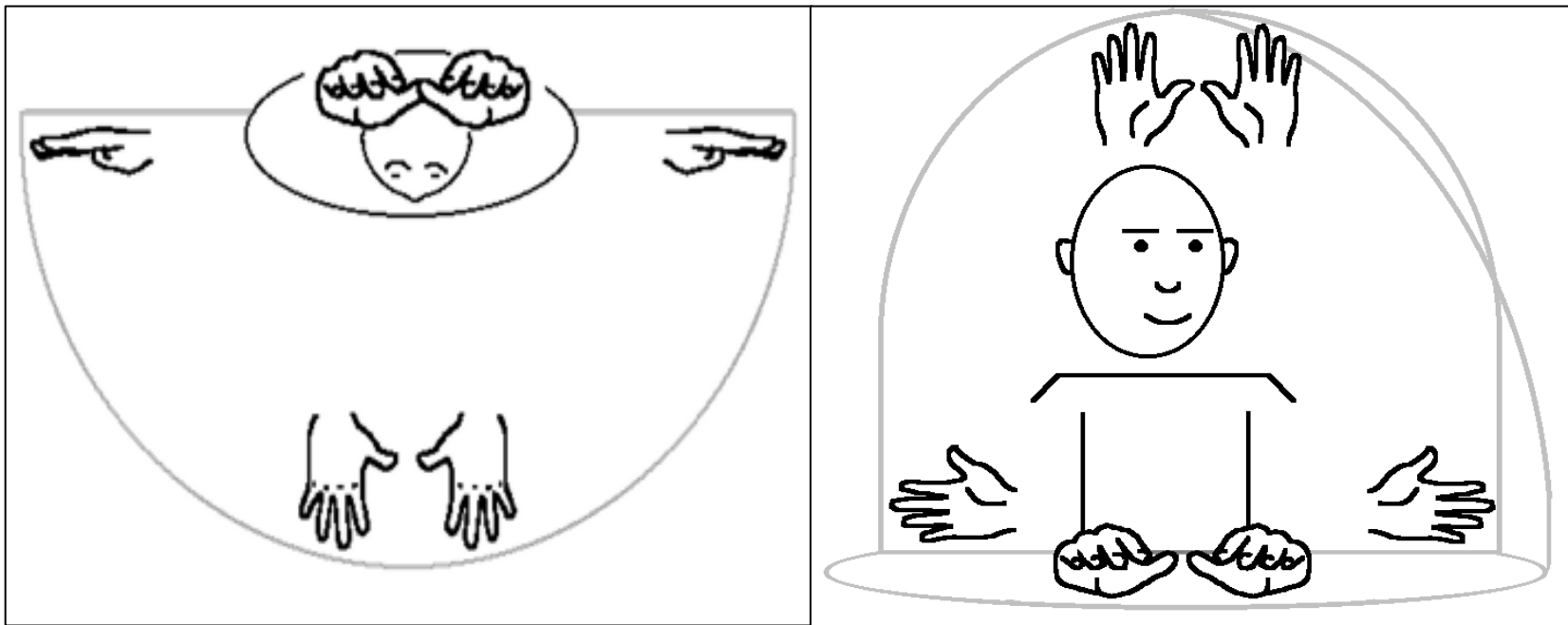
Stem-internal Changes

- Every phonological parameter may function as an independent morpheme → simultaneity
- **Handshape(s):** Classifier
- **Direction of movement, orientation** (and location) expresses agreement information
- **Manner of movement:** manner adverb
- **Non-manual marking:** manner
- Simultaneity in spoken languages?

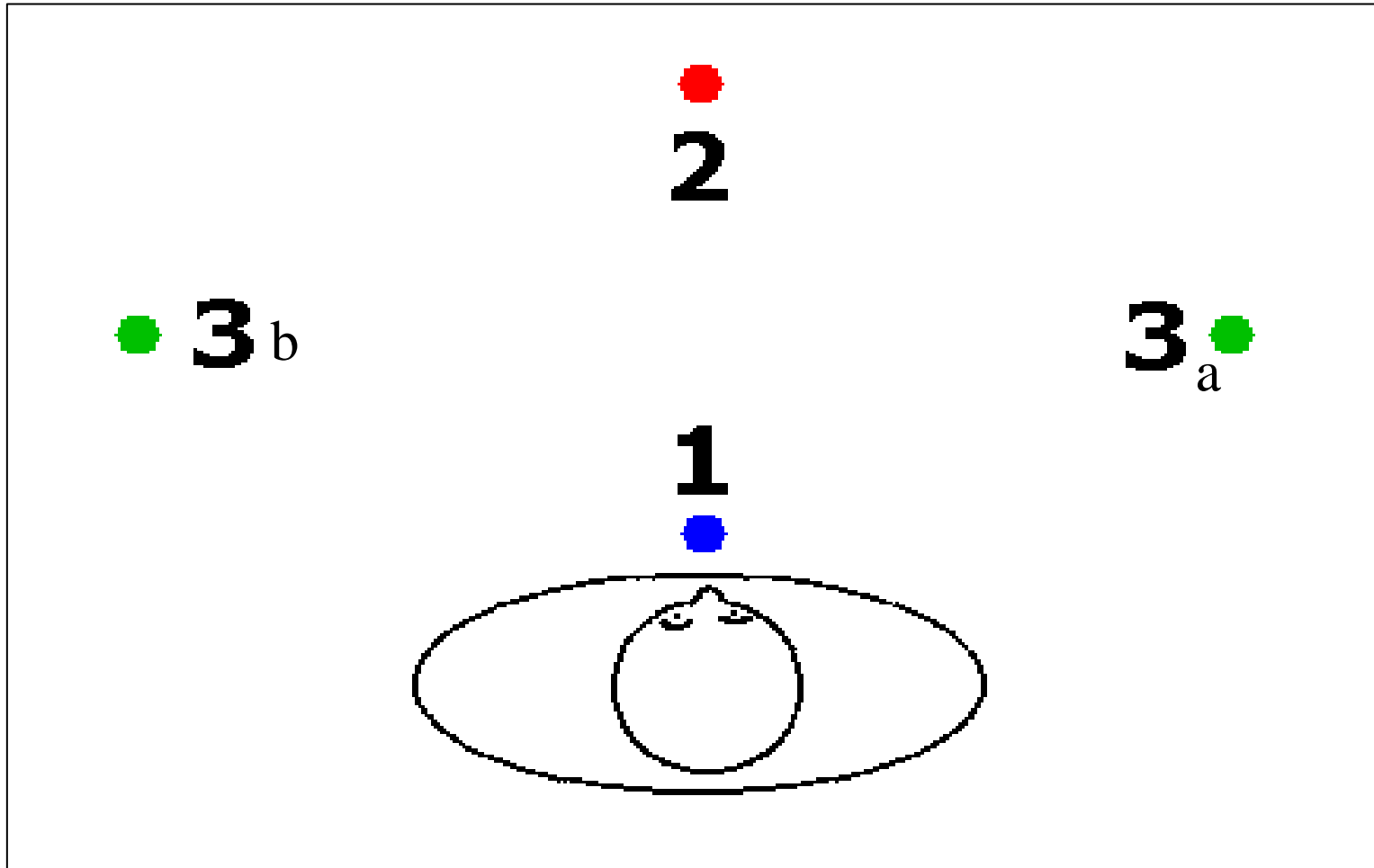
Signing Space

- from above

- from front

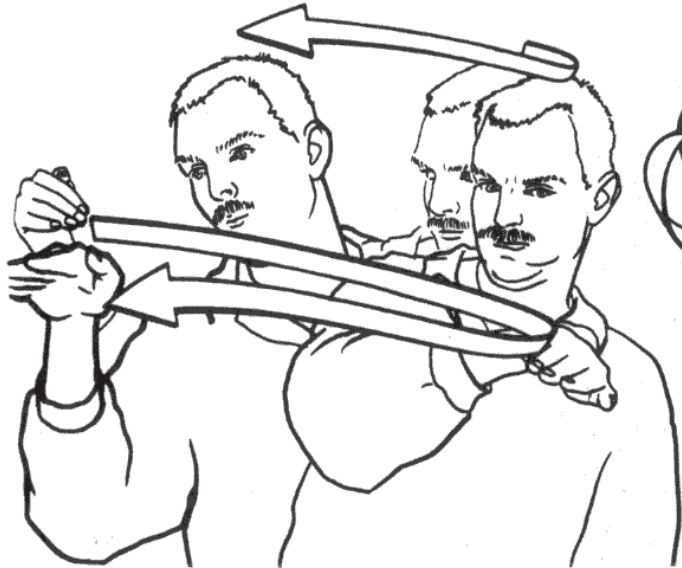


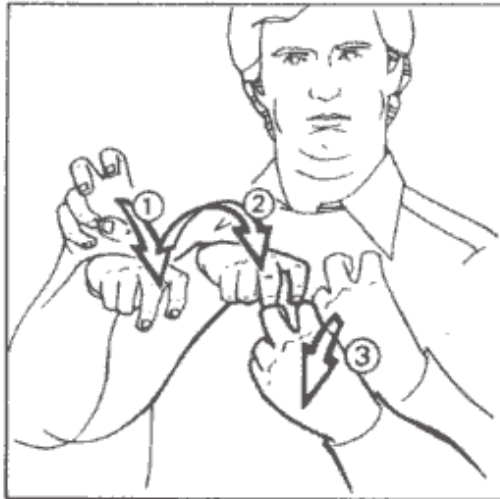
Localization of Referents: Syntactic use of Space



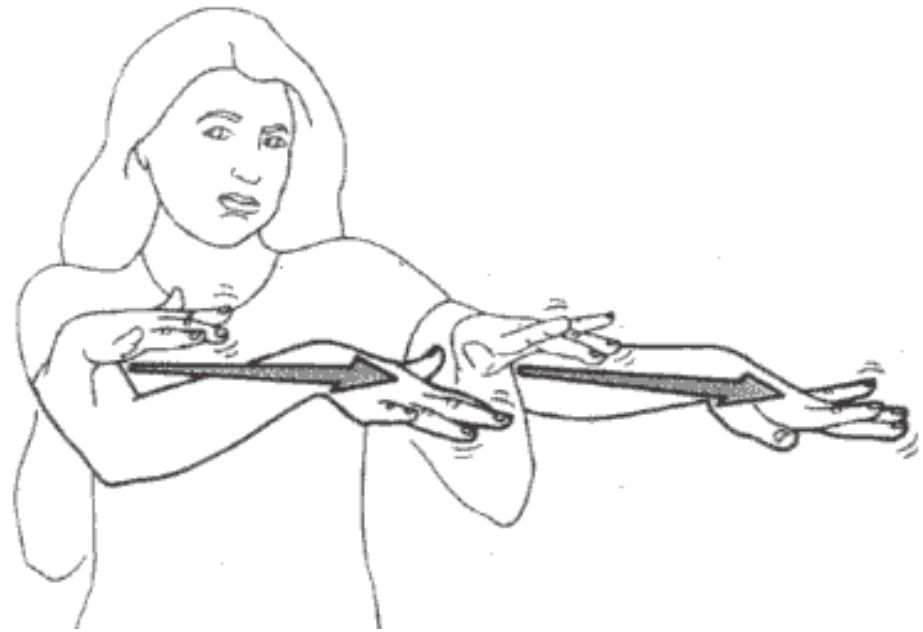
Classifiers:

Topographic use of space





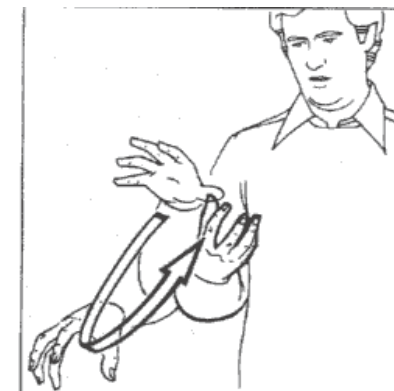
'a seating arrangement of three people'



PICK-UP-___
(e.g. 'marble')



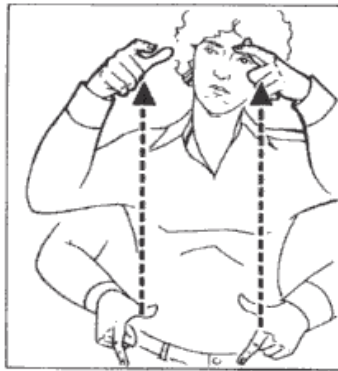
PICK-UP-___
(e.g. 'cup')



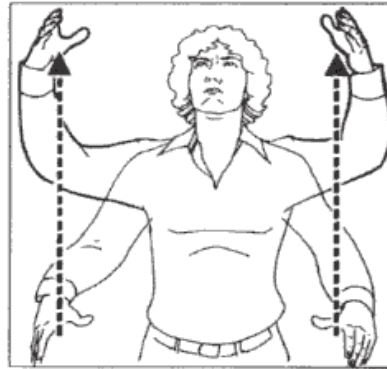
PICK-UP-___
(e.g. 'rock')



(2h)F_↑-CL'pole'



(2h)L_↑-CL'pole'



(2h)C_↑-CL'pole'



(2h)B_{outline}-CL-ctr'hill'



V-CL-ctr'stand atop hill'
B_↓-CL-ctr'hill'



Classifier constructions

- Rich and complex morphological system used in order to denote spatial relations and motion events and to characterize shapes and dimensions of objects.
- Often capitalize on iconicity.
- Handshapes and movements.
- Pervasive but somehow anomalous subsystem in SL grammars.

Example



Types of SL classifiers

- Semantic (whole entity, class) classifiers: the handshape stands for the referent; refer to general semantic classes; iconicity more opaque.
- Size and Shape Specifiers (SASS): the hands trace the outline of form of the entity; represent visually perceived physical properties of objects.
- Handling classifiers: represent the shape of the hand or other object handling or gripping the referent.
- Bodypart classifiers: combination of SASS and body location

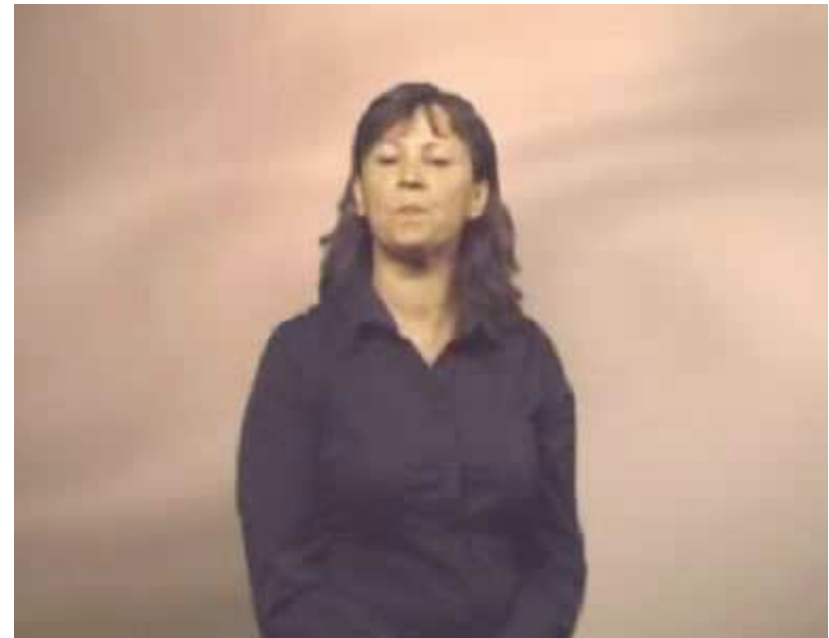
Some “idiosyncrasies”

- Non-dominant hand may simultaneously represent an independent classifier (a secondary object or the Ground): it has morphological status, unlike in lexical signs.
- Locations articulated by the hands are meaningful.
- They don't obey same phonological restrictions as lexical signs (Dominance & Symmetry Conditions).
- Movement “roots” (Supalla): stative (=existence), contact (=be located at), active (=motion).

Example: Semantic CL



Example: Semantic CL



Example: SASS CL



Example: Bodypart CL



Example: Handling CL



All examples with English and Spanish translations at:
<http://blogs.iec.cat/lsc/grammar-2/classifiers/?lang=en>

Classifiers in SpLs

- Senft (2000): “morphemes that classify ... nouns according to semantic criteria”.
 - (a) status as a morpheme
 - (b) function of grouping, subcategorizing, and classifying nouns.
- S&L-M: handshape forms of SLs conform to these criteria.

Classifier typology I

- *Numeral* classifiers: categorize the referent in terms of animacy, shape etc. In the context of quantification, next or bound to a quantifier or a numeral. E.g. Chinese.
 - j-p'ej alaxa
one-CL(round) orange
'one (round) orange'
 - j-ch'ix tzaj-al kantela
one-CL(longish) red-ATTR candle
'one (longish) red candle' (Tzotzil)
- *Noun* classifiers: categorize the noun with which they appear independently of quantification. Free morphemes.
 - Buri birmar 'CL:fire charcoal' ("hot charcoal")(Yidini)

Classifier Typology II

- Verbal classifiers

(1) Classificatory morphemes: (i) incorporated generic nouns; (ii) classifying verbal affixes, phonologically very eroded.

Caddo

Kapi: **kan**-ca:ni'-ah
coffee CL:liquid-buy-PERF
'He bought (liquid) coffee'

Kapi: **dan**:-ca:ni'-ah
coffee CL:powder-buy-PERF
'He bought coffee powder'

Classifier Typology III

- (2) Classificatory verb stems: lexicalize the shape or position of the subject or object argument in copula verbal paradigms.

Navaho

beeso si-?a 'A coin is lying (there)'
money PERF-lie(round entity)

beeso si-nil 'Some money is lying (there)'
money PERF-lie(collection)

beeso si-Itsooz 'A note/bill is lying (there)'
money PERF-lie(flat flexible entity)

- Noun classes/genders: grammatical agreement classes based on semantic characteristics such as animacy, sex, or humanness. Considered an extreme case of noun class system.

Proposed Analyses

- Classifying handshapes are **cognitively-based** (Schembri 2003) or **gestural, non-linguistic** elements (Cogill-Koez 2000, Liddell 2003)
- Classifying handshapes are **agreement morphemes** which spell out phi-features associated with nouns (Glück & Pfau 1998, Zwitserlood 2003)

Criteria

- Grinevald (2000): CL are a morphosyntactic system, placed at the middle point along a lexical-grammatical continuum.
- Schembri: unique in its fusion of linguistic and visuospatial properties.

- A CL classifies in the sense that it denotes some salient inherent or perceived characteristic of the referent represented by an associated noun.
- Engberg-Pedersen (1993): choice of handshape and movement are interdependent, so hs not only depends on some characteristic of the referent.

- With handling CL, the handshape may simultaneously represent two entities (handler and handled object).
- SASS: do not classify the referent, but give descriptive information about its visual-geometric characteristics.

Glück & Pfau (1998)

- In DGS stranding with a “theme” CL is ungrammatical:

*MAN-IX1 WOMAN-IX2 THREE 1GIVE2-Clflower

‘The man gives three flowers to the woman.’

- Doubling is obligatory.
- Classification is an agreement phenomenon, much like gender: CL as morpheme on V marking agreement with a nominal referent.

Benedicto & Brentari (2004)

- (i) Predicates with a handling classifier are transitive (with an external and an internal argument);
- (ii) Predicates with a whole entity classifier are intransitive unaccusative (one single internal argument) and
- (iii) Predicates with a body part classifier are intransitive unergative (one single external argument)

Benedicto & Brentari (2004)

- Tests targeting internal and external arguments (FINISH!, WILLINGLY, [dist], NOTHING)
- Classifiers project syntactically as (functional) heads and they determine the status (as external or internal) of the argument that lands in their Spec.

Benedicto & Brentari (2004)

- Two types of argument alternations:
 - 1: unergatives < - > unaccusatives :
limb=BP < - > whole entity
 - a. ROSIE **S**+BOW
Rosie head**BPCL**+bow
'Rosie bowed.'
 - b. ROSIE **1**+BOW
Rosie upright_being**w/e** +bow
'Rosie bowed.'

Benedicto & Brentari (2004)

- 2: transitives < - > intransitives (unacc)
handling < - > whole entity
 - a. [∅] BOOK **C+MOVE**
pron.3sg bookobj_grab**hdlg**+move_vert.>hor.
'S/he took the (standing) book and laid it on its side.'
 - b. BOOK **B+MOVE**
book 2D_flat_obj**w/e**+ move_vert.>hor.
'The (standing) book fell down on its side.'

Serial Verbs of Motion

PERSON_y 1-1dwn_y+RUN 1_y+GO_UP_ZIGZAG

person legs_{bpcl}+run u_{w/e}+go_up_zigzag

'A person (is) running zigzag up(hill).'

