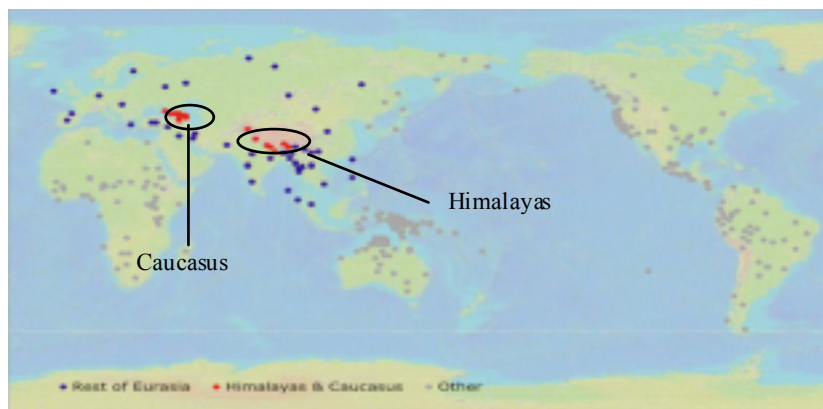## The Himalayan Enclave Hypothesis & Bipartite Stems

Kristine A. Hildebrandt, University of Leipzig
khilde@uni-leipzig.de

0   Macroareas & Enclaves
- *Typological Enclaves* (Bickel & Nichols 2003)
- <u>Himalayas & Caucasus</u>: zones of structural deviation within larger <u>pan-Eurasian Macroarea</u> = 'Macroarea vs. Enclave'

MAP 1. Languages in Himalaya & Caucasus vs. Rest of Eurasia (Bickel & Nichols 2003)

- 'Enclave': a linguistic sub-area that shows a greater within-group <u>variance of the presence</u> of certain features, while the surrounding Macroarea has <u>more within-group homogeneity</u>

(1)   <u>Enclave Variables</u>
        Verb inflectional synthesis
        Polypersonal verb agreement
        Conjunct/disjunct system
        Multiple possession classes
        Double marking of possessive & object relations
        Bipartite stems

- Bipartite: A stem that is <u>discontinuous</u> or <u>segmentable</u> into two parts for certain morphological operations (Bickel & Nichols, to appear; Nichols 2003/to appear)

- Discontinuity via formative <u>interposition</u> between 2 stem pieces
- This interposition usually evidenced via *prefixation*

(2)   Limbu (Tibeto-Burman, Kiranti) Bipartite Stem
kusiŋni:p-ma
understand-NOM 'to understand' (van Driem 1987: 352)

kusiŋ   <u>mɛ</u>-ni:tt-u-n
understand$_1$ <u>NEG</u>-understand$_2$-3PAT-NEG
'(She) did not understand.'

- In Limbu compounds, inflectional morphology applies iteratively

(3)   Limbu Verbal Compound
dza 'eat' + *sur* 'finish' 'finish eating'
<u>kɛ</u>-dza-m   <u>kɛ</u>-sur-u-m-aŋ   ta-ʔɛ
<u>2</u>-eat/3P-pA   <u>2</u>-finish-3P-pA-and   show.up-1sPS/NPT
'I'll show up when you have finished eating.' (van Driem 1987: 119)

- Bickel & Nichols: Tested for a significant relationship between the presence/absence of bipartites in a genetically balanced sample of languages and the location of those languages in either the larger macroarea or the enclaves
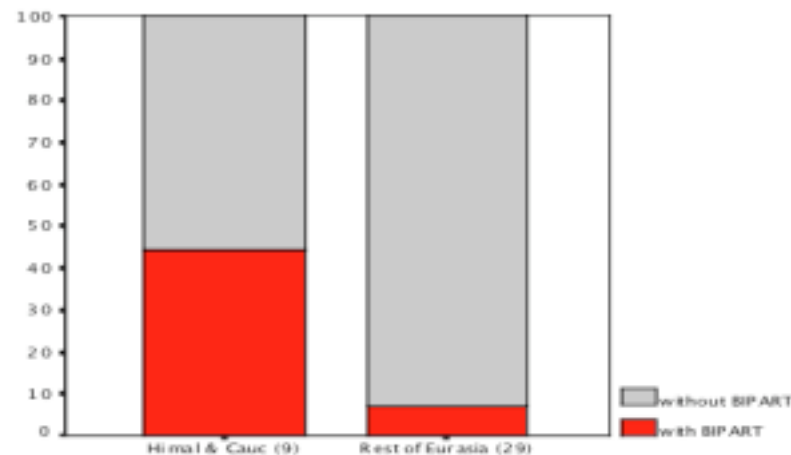

CHART 1. Bipartites in Enclaves & Rest of Eurasia N = 38 languages (Bickel & Nichols 2003)

• *However*: Language sample incomplete; results marginally significant; low reliability
• Thus: an ongoing need to track languages with/without bipartites in both Eurasia & Enclaves
• *My sample*: A random, balanced sub-sampling of languages from major subgroupings of all families in both areas; 'filling in' more empty cells regarding presence/absence of bipartites

1   Bipartite Stems

• Bipartite stem: a single stem segmentable into two parts for certain morphological operations
• First noted for: Washo & also for Klamath (Jacobsen 1980; DeLancey 1996); other North American lgs (e.g. Cree, Lakhota, Kutenai, Wichita)
• Nakh-Daghestanian (Nichols 2003/to appear), Oceanic~Asian lgs. (e.g. Kuot, Gooniyandi, Kewa, Paiwan, Ket, Dumo) & at least one African language (Yoruba)
• Sino-Tibetan/Tibeto-Burman: Limbu, Belhare, Newar, Qiang, Kyirong Tibetan, Manange

Bipartites vs. Other Complex Stem-Words

• Interposition is not infixation: location of infix prosodically determined, while interposition not prosodically determined
• Bipartites are not compounds: combination of 2 roots to create a new stem-word, with some stranding of morphology that applies to only one piece of the compound (e.g. Eng: *passersby*; German: *Schwanengesang* 'swan song') (Fabb 2001); bipartites semantically opaque, interposed formative applies to entire stem as a whole
• Bipartites are not incorporation: compounding of (noun) with verb/adjective to create a complex form that is a clausal predicate; tend to show valency alterations, specialized semantics, stripped-down or limited morphology, phonological cohesion (Gerdts 2001); bipartites a morphologically simple stem form with formative interposition
• Variation in what has been called 'bipartite':
  ‣ Combination of lexical prefix + stem (instrumental theme, manner, location)
  ‣ Initial piece may adjust valency of resulting larger verbal construction
  ‣ For others, no discernable semantics to either 'piece'
  ‣ For some 'pieces': a wide range of combinatorial possibilities/patterns; for others: very restricted

TYPE	SEMANTICS	VALENCY (if verbal)	COMBINATION POSSIBILITIES	INSERTIONS
Incorporation	both pieces transparent	single (reduced)	flexible~definiteness restrictions: different phrasal heads	inflectional/derivational morphemes
Compound	word1 + word2… = stem	single	some restrictions	interposed morphology archaic/targets single piece
'Complex Stem'	gram. element + stem = stem	single	some restrictions	inflectional formatives (prefixation applies once, but targets both pieces)
BIPARTITE	single stem-word	single	restricted; single word	certain inflectional formatives (prefixation applies once, but targets both pieces/entire stem)

Table 1. Stem Types

2 An Updated Sampling & Sino-Tibetan Bipartites

- Taken from a balanced sampling of languages from both areas
- Himalaya & Caucasus Enclaves: 18 languages
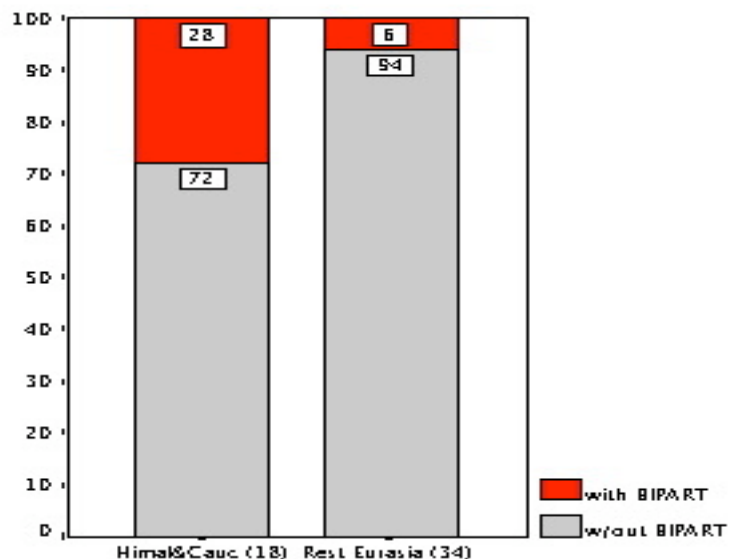- Rest of Eurasia: 34 languages (total N = 52)

Chart 2. Bipartites in Enclaves & Rest of Eurasia (N = 52)

- Fisher's Exact (1-tailed): p = .041; (p < .05); Relationship marginally significant
- But still similar to Bickel & Nichols 2003
- Sino-Tibetan languages: Based on 9 major sub-groups, with uneven representation of languages per sub-group
- A per-grouping, genus-level, sample (not per-language)
- Do we find, within this single family, a similar relationship between sub-area and bipartites?

Major Sub-Groups	YES BIPARTITES	NO BIPARTITES
Sinitic	X	Mandarin
Remnant Kamarupan	X	Mishmi
Brahmaputran	X	Garo
Himalayish	Dolakha Newar, KTM Newar, Limbu, Belhare	Hayu, Kham, Kinnauri
Bodish	Kyirong Tib., Manange	Gurung, Tamang, Chantyal, Lhasa Tib., Dege Tib.
Qiangic	Qiang	Pumi/Prinmi
Kuki-Chin	X	Meithei, Lai Chin
Karenic	X	Kayah-Li
Lolo-Burmese	X	Lahu

Table 2. Sino-Tibetan Major Branches & Representative Languages With & Without Bipartites (Shaded Branches = Himalaya Enclave)
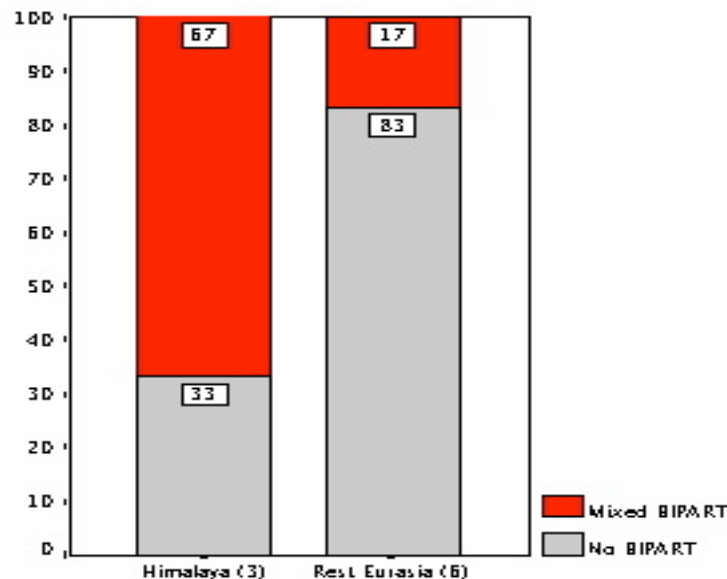

Chart 3. S-T Major Branches with Mixed Presence of Bipartites vs. No Bipartites, Across Areas (N = 9 Branches)

- Fisher's Exact (1-sided): p = .226 (p >.05); Not significant

3

- Very small sample; 1 Sub-grouping in Himalaya only NO bipartites (Brahmaputran) & 1 Sub-grouping in rest of Eurasia with MIXED bipartites (Qiangic)
- Results still interesting from a family-internal perspective
- Bipartites in Sino-Tibetan seem to be a recurring feature in an otherwise structurally diverse family
- Bodish & Qiangic languages have less rich, less interesting (concatenative) inflectional morphology, while Kiranti languages have more/richer; All 3 sub-groups share this stem type in common

Bipartites in Specific Languages of 3 Sub-groupings

- Interposition evidenced through formatives like possession, negation, agreement marking, and aspect prefixation:

(4)   Negation: Manange (Bodish, Nepal, Himalaya)
kʰì   ʃò   <u>a-mlé</u>   jʌ̀
3.SG   forget$_1$ <u>NEGATIVE</u>-forget$_2$ NONVOLITIONAL
'S/he forgets/forgot' (Hildebrandt 2004)

(5)   Agreement: Belhare (Kiranti, Nepal, Himalaya)
la-<u>nn</u>-u-yakt-he
dance$_1$-<u>3NONSG.SUBJ</u>-dance$_2$-IMPERFECTIVE-PAST
'S/he was dancing' (Bickel & Nichols to appear)

(6)   Aspect: Qiang (Qiangic, China, Eurasia)
de-<u>tɕi</u>-le-wei
give$_1$-<u>CONTINUOUS</u>-give$_2$-HEARSAY
'(He) gave (them)...' (LaPolla 1996: 267)

3   Concluding Remarks
Bipartites as a Stem Type
- A strict, operational definition of bipartite stem vs. other (morphologically) complex stem-words
- Hallmark feature of bipartites: Interposition of prefixes

Bipartites as an Enclave Feature
- Data on more languages show significantly heterogeneous patterning of bipartites in Himalaya & Caucasus enclaves vs. the rest of Eurasia
- Genus-based sampling within Sino-Tibetan shows a heterogeneous, but non-significant, patterning of bipartites in the Himalaya enclave vs. the rest of Eurasia

References
Bickel, Balthasar, and Johanna Nichols. to appear. Inflectional morphology. Timothy. Shopen, ed., *Language typology and syntactic description*. Cambridge [2nd edition].

Bickel, Balthasar, and Johanna Nichols. 2003. Typological Enclaves. Presentation at the 2003 Association for Linguistic Typology Biannual Meeting.

DeLancey, Scott. 1996. The bipartite stem belt: Disentangling areal and genetic correspondences. David Librik and Roxane Beeler, eds., *BLS 22 Special Session on Historical Issues in Native American Languages*, 37-54. Berkeley: BLS.

Fabb, Nigel. 2001. Compounding. Andrew Spencer and Arnold M. Zwicky, eds., *The Handbook of Morphology*, 66-83. Oxford, UK: Blackwell.

Gerdts, Donna B. 2001. Incorporation. Andrew Spencer and Arnold M. Zwicky, eds., *The Handbook of Morphology*, 84-100. Oxford, UK: Blackwell.

Hildebrandt, Kristine. 2004. Complex Stems in Manange. Presentation at the 2004 Linguistic Society of Nepal Annual Meeting.

Jacobsen, William H., Jr. 1980a. Washo bipartite verb stems. Kathryn Klar, Margaret Langdon, and Shirley Silver, eds., *American Indian and Indoeuropean Studies: Papers in Honor of Madison S. Beeler*, 85-99. Berlin: Mouton.

LaPolla, Randy. 1996. *A grammar of Qiang*. Author Copyright.

Nichols, Johanna. 2003/To Appear. A bipartite verb stem outlier in Eurasia: Nakh-Daghestanian. Pawel Nowak and Corey Yoquelet, eds., *Proceedings of the 29th Annual Meeting, Berkeley Linguistics Society*. Berkeley: Berkeley Linguistics Society.

van Driem, George. 1987. *A grammar of Limbu*. Berlin: Mouton.