

Subversion, convergence, chance

Shooting from the hip or gnarly investigation?

Hans Henrich Hock

University of Illinois

hhhock@illinois.edu

Introduction

Subversion vs. Convergence and the role of the speaker

- Traditional view (going back to Dante 1303-1305) – substratum influence (“subversion”)
 - The language of conquerors is considered influenced by the conquered
 - Mechanism: “Interference”, “Incomplete Acquisition”, “Structural borrowing”, “Code copying”
 - The influence is unidirectional
 - What happens to the other language is not considered

- Hock 2016a, 2016b, 2021
 - In contemporary South Asia, unidirectional interaction does not seem to be the norm
 - Rather, bi- or multidirectional **convergence** seems to be the norm
 - Even the interaction between English (the conqueror) and the regional South Asian languages (the conquered) has been bidirectional

Indian-language influence on English in India

HINDI
pheko

INDIAN ENGLISH
throw

BRITISH ENGLISH
*throw **it to me***

English influence on Hindi

TRADITIONAL HINDI (RC-CC or CC-RC; no central embedding)

[<i>jō laṛkā</i> <i>vahām</i>	<i>baiṭhā hai</i>] _{RC}	[<i>vah mērā bhāī</i> <i>hai</i>] _{CC}
RP boy there	sit.PRS.3SG	CP my brother be.PRS.3SG
[<i>vah laṛkā</i>	<i>mērā bhāī hai</i>] _{CC}	[<i>jō vahām baiṭhā hai</i>] _{RC}
CP boy	my brother be.PRS.3SG	RP there sit.PRS.3SG

INNOVATIVE HINDI (central embedding)

[[<i>vah laṛkā</i> [<i>jō</i>	<i>vahām baiṭhā hai</i>] _{RC}] _{NP}	<i>mērā bhāī hai</i>]
DEM boy RP	there sit.PRS.3SG	my brother be.PRS.3SG

BRITISH ENGLISH (central embedding)

[[*the boy* [*who is sitting there*]_{RC}]_{NP} *is my brother*]

Additional concerns

- Subversion accounts often ignore or dismiss alternative explanations
- including the possibility of chance similarities
- Problems of chronology tend to be insufficiently addressed
- That is, too much shooting from the hip, not enough gnarly investigation

Further considerations

- “Interference”, “Incomplete Acquisition”, “Code Copying” etc. are not sufficient to account for the outcome of language contact – Accommodation seems to play a major role
- Accommodation takes place between speakers engaged in communication with each other; “languages” don’t interact, speakers do
- **The Uniformitarian Principle suggests that a convergence approach should be preferred in general, not just in contemporary South Asia, but also prehistorically and outside South Asia**

This talk presents three case studies –

- The issue of Czech-German language contact
- The HAVE perfect in (Western) Europe
- Retroflexion in South Asia

Czech and German – “Unidirectional convergence” ??

Striking similarities of Czech with German

- Initial accent

(1)	Russian	Czech	
	<i>stárica</i>	<i>stárica</i>	‘old woman’
	<i>stariná</i>	<i>stárina</i>	‘ancient times’

- Diphthongization of high vowels

(2)	OCS	Czech	
	<i>mūxa</i>	<i>moucha</i>	‘fly (insect)’
	<i>myti</i> [ɪ]	<i>mejt</i>	‘wash’

(3)	MHG	NHG	
	<i>hūs</i>	<i>Haus</i>	‘house’
	<i>līp</i>	<i>Leib</i>	‘body’

- Contraction of *ie*, *uo*

(4)	OCzech	Czech	
	<i>bŭh</i>	<i>búh</i> <bŭh>	‘god’
	<i>bielý</i>	<i>bílý</i>	‘white’

(5)	MHG	NHG	
	<i>guot</i>	<i>gut</i> [ū]	‘good’
	<i>lieb</i>	<i>lieb</i> [ī]	‘dear’

- Czech loss of distinction *l’* : *l* (Hus: ‘more teutonicorum’)

- Hock (1986, 1999: §16.3.2): “**Unidirectional convergence**”
(similarly Boretzky 1991, Pontius 1997)

‘... beginning with the thirteenth century, the Czechs increasingly came under the sway of German-speaking powers. The result was an extended period of bilingualism, mainly on the Czech side, which lasted until the 1930s. It is therefore possible to argue that the developments ... resulted from contact with German ... ’

Problem: No references !!

But it is an older view, going back to Gebauer 1894 as well as Jan Hus on *l*; see also Havránek 1966 (with some reservations)

Beer (1905) and later Czech scholars –

- The changes can be explained in terms of indigenous developments
- Initial accent also in Slovak, Sorbian
- Diphthongization also in other Slavic languages
- Diphthongization of y [ɪ̯] (but not [i̯]) has no parallel in German

Possible counterarguments –

- Initial accent in Slovak can be explained by proximity to Czech
Sorbian and Czech are in closest proximity to German

BUT Problem: Czech, Slovak, and Sorbian have initial accent on all words, German does not have it on certain prefix-initial structures

- Diphthongizations of the type $*\check{e} > ie$, $*\bar{o} > uo$ are found in NW Slovene and in coastal dialects of Štokavian

But they differ in their outcomes: Czech $\bar{u} > ou$ vs. W Balkan Slav. $\bar{o} > uo$

Vermeer (1989): W Balk. Slav. Diphthongization due to neighboring Romance

- Regarding [ɪ̃] > [ej], but not [ī] –
 - [ɪ̃] was in the process of merging with [ī]; main distinction was absence or presence of preceding “softening”.
 - German [ī] does not have preceding “softening”, so it’s more similar to *[ī̃] ...

But this is speculative

Preliminary conclusion

The evidence pro and con German influence is less strong than commonly assumed

- **A real problem –**

How does one “borrow” or “transfer” the result of a sound change?

If, say, German has changed *ū* to *ou*, why would Czech “copy” a change that is no longer active?

Possible solution (Boretzky 1991) – The change itself is transferred, as it is taking place variably

This proposal introduces a social context, where (presumably) real speakers accept a sociolinguistically conditioned ,variable change taking place among real speakers – “Languages” don’t converge, but speakers’ linguistic behavior converges

But this raises a new issue – What do we really know about Czech and German speakers in medieval Czechia?

A proposal by Havránek 1966, see also Berger 2003, 2009

- German influence cannot be excluded
- Proposal: German patriciate's and craftsmen's language in the cities underwent "Tschechisierung"
- Their pronunciation, in turn, spread into Czech because of urban prestige

But do we really know that there was "Tschechisierung" of German city dwellers? Or what it looked like?

Detailed research on the speech of both Germans and Czechs at the appropriate time frame(s) remains very much a desideratum

Epilogue

Another bone of contention: the use of German *werden*, Czech *být* + infinitive as FUTURE

(6) *nyní chleb **budete jísti***
‘now you will eat bread ...’ (Hrozný 1917)

(7) *nun **werdet** ihr Brot **essen***

Wiemer & Hansen 2012, after careful examination of different claims –

The case is indeterminate and the possibility of MUTUAL influence should not be excluded

– A conclusion that seems to fit the phonological similarities as well

References

- Beer, Antonín. 1905. O stopách vlivu němeského v češtině staré. *Věstník Královské české společnosti nauk, Třída filosoficko-historicko-jazykozpytná*, Nr. 7.
- Berger, Tilman. 2003. Gibt es Alternativen zur traditionellen Beschreibung der tschechischen Lautgeschichte? *Selecta Bohemico-Germanica: Tschechisch-deutsche Beziehungen im Bereich der Sprache und Kultur*, ed. by Ernst Eichler, 9-37. Münster: Lit-Verlag.
- Berger, Tilman. 2009. Tschechisch-deutsche Sprachbeziehungen zwischen intensivem Kontakt und puristischer Gegenwehr. *Unsere sprachlichen Nachbarn in Europa: Die Kontaktbeziehungen zwischen Deutsch und seinen Grenznachbarn*, ed. by Christel Stolz, 133-156. Bochum: Brockmeyer.
<https://homepages.uni-tuebingen.de/tilman.berger/Publikationen/BergerBremen.pdf>
- Boretzky, Norbert. 1991. Contact-induced sound change. *Diachronica* 8(1): 1-15.
- Gebauer, Jan. 1894. *Historická mluvnice jazyka českého*, I: *Hláskosloví*. Praha: Nákladem F. Tempského.
- Havránek, Bohuslav. 1936. Vývoj českého spisovného jazyka. *Československá vlastivěda, Řada II: Spisovný jazyk český a slovenský*, 1-144. Praha: Sfinx.
- Havránek, Bohuslav. 1966. Zur Problematik der Sprachmischung. *Travaux linguistiques de Cercle Linguistique de Prague*, n.s. 2: 81-95.
- Pontius, Jason. 1997. Language codification and the perception of otherness: The case of Czech and German. *Chicago Linguistic Society* 33, *The Panels*, 101-108.
- Vermeer, Willem. 1989. Traces of an early Romance isogloss in Western Balkan Slavic. *Slavistična Revija* 37(1/3): 1-15.
- Wiemer, Björn, and Björn Hansen. 2012. Assessing the range of contact-induced grammaticalization in Slavonic. In: *Grammatical replication and borrowability in language contact*, ed. by Björn Wiemer, Bernhard Wächli, and Björn Hansen, 67-155. Berlin/New York: De Gruyter Mouton.

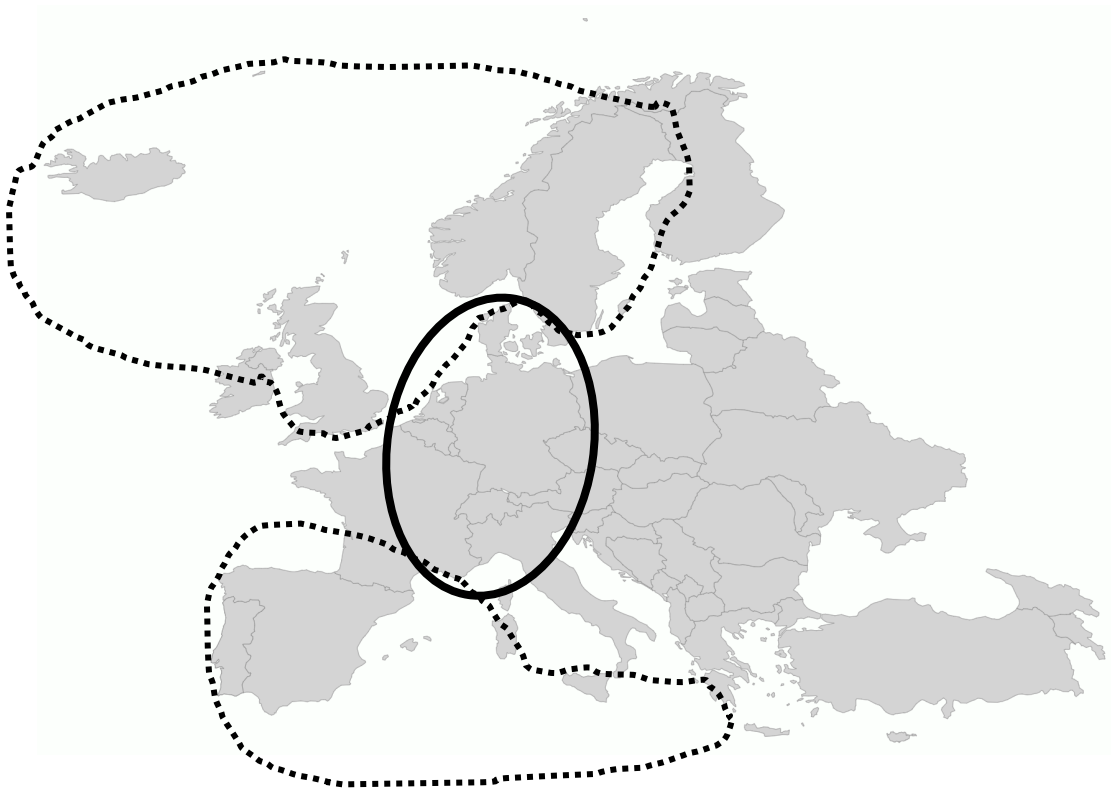
A (western) European sprachbund

Haspelmath (2001, w. ref.)

- Arguments for a (Western) European Sprachbund, with French and German as core languages
- A synchronic study
- Broad range of evidence
- Acknowledgment that choosing different features might result in different areal groupings
- Speculation: The sprachbund most likely reflects contact during the “Great Migration” period

This presentation – Historical perspective on the present perfect

Modern approximate distribution of HAVE vs. BE : HAVE auxiliaries



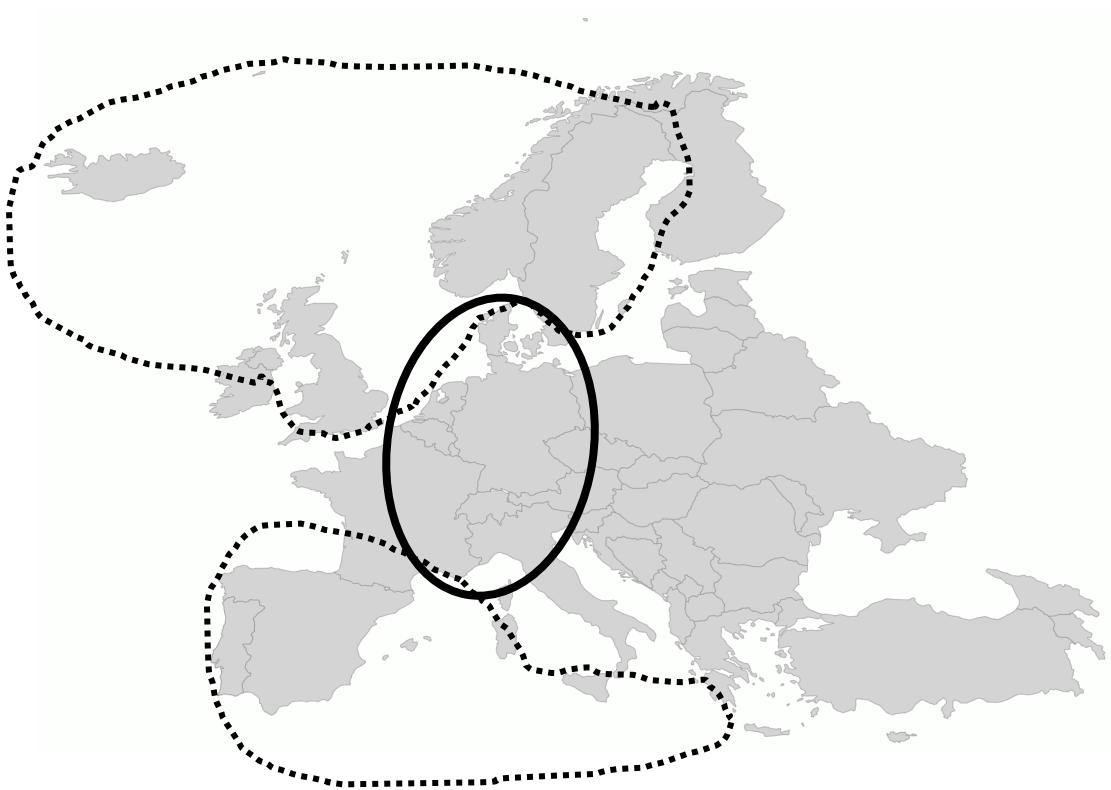
(Outline map source: <https://simplemaps.com/resources/svg-europe>)

- HAVE perfect
- HAVE : BE perfect

Drinka (2011, and esp. 2017)

- Major focus on the HAVE perfect as common (western) European feature
- There is also a core area of French, German, Italian, which HAVE and BE
- The spread of the HAVE perfect reflects elite “roofing” dominance of Biblical Latin
- The BE perfect is an innovation in the core area of the Carolingian Empire
- The latter claim seems to be supported by the modern isogloss evidence

Modern approximate distribution of HAVE vs. BE : HAVE auxiliaries



(Outline map source: <https://simplemaps.com/resources/svg-europe>)

- HAVE perfect
- HAVE : BE perfect

Problems (see also Hock 2021)

(Late) Imperial Latin has BE vs. HAVE in the perfect, not limited to Biblical contexts

a. INTRANSITIVE

diplomata

certificate.NOM.PL.N

quorum

QP.GEN.PL.N

praeteritus

pass.TPPL.NOM.SG.M

est

dies

non debent

in usu

be.PRS.3SG

day.NOM.SG.M

NEG

must.PRS.3PL

in use.ABL.SG.M

‘... certificates, whose day has/is passed, should not (be) in usage.’ (1st/2nd c. AD)

b. TRANSITIVE

quem ad modum

as

de ea re

about this matter.ABL.SG.F

supra

above

scriptum

write.TPPL.ACC.SG.N

habemus

have.PRS.1PL

‘As we have written above on this matter’ (1st c BC)

With some variation, this is also found in early Western Romance and in all of Germanic

OLD SPANISH

a. INTRANSITIVE

venido *es* *a moros*
come.TPPL.SG.M be.PRS.3SG to Moor.PL.M
'(El Cid) has come to the Moors'

b. TRANSITIVE

grand aver *avemos* *preso*
great treasure.SG.M have.PRS.1PL take.TPPL.SG.M
'We have taken great treasure.'

OLD GALLEGO-PORTUGUESE

BE with intransitives

des que *foi* *passada*
after be.PRET.3SG pass.TPPL.SG.F
deste mund' *e* *juntada* *com* *El ...*
from this world be.PRS.3SG join.TPPL.SG.F with him
'After she (Mary) had passed from this world she has joined with Him.'

OLD ENGLISH (BEOWULF)

a. INTRANSITIVE RESULTATIVE-STATIVE

nu is se dæg cumen
now be.PRS.3SG that day.NOM.SG.M come.PFV.PPL

‘Now is that day come; now that day has arrived/is here’

b. INTRANSITIVE EVENTIVE

syððan hie togædre gegan hæfdon
since he.NOM.PL.M together go.PFV.PPL have.PST.3PL

‘since they had come together’

c. TRANSITIVE

hæfde se goda ... | cempan
have.PST.3SG that good.NOM.SG.M warrior.ACC.PL.M

gecorone
choose.PFV.PPL.ACC.PL.M

‘That good man had chosen warriors.’

Conclusions –

- The existence of a BE : HAVE distinction in BC and very early AD Imperial Latin argues against a “roofing” effect of Biblical Latin
- A vernacular origin is more likely
- This perspective places the focus on actual, ordinary speakers – in bi- or multilingual contact

- The peripheral Romance and Germanic languages lost the BE : HAVE distinction – apparently independently
- The existence of the BE : HAVE distinction in the central area (including French, German, Italian) is a retained archaism
- If the Carolingian Empire had any effect, it would have been in the form of reinforcing retention in the “core” area
- Implications for the dialectology of convergence areas
 - The normal assumption is that dialect areas are defined in terms of innovations, not retentions

References

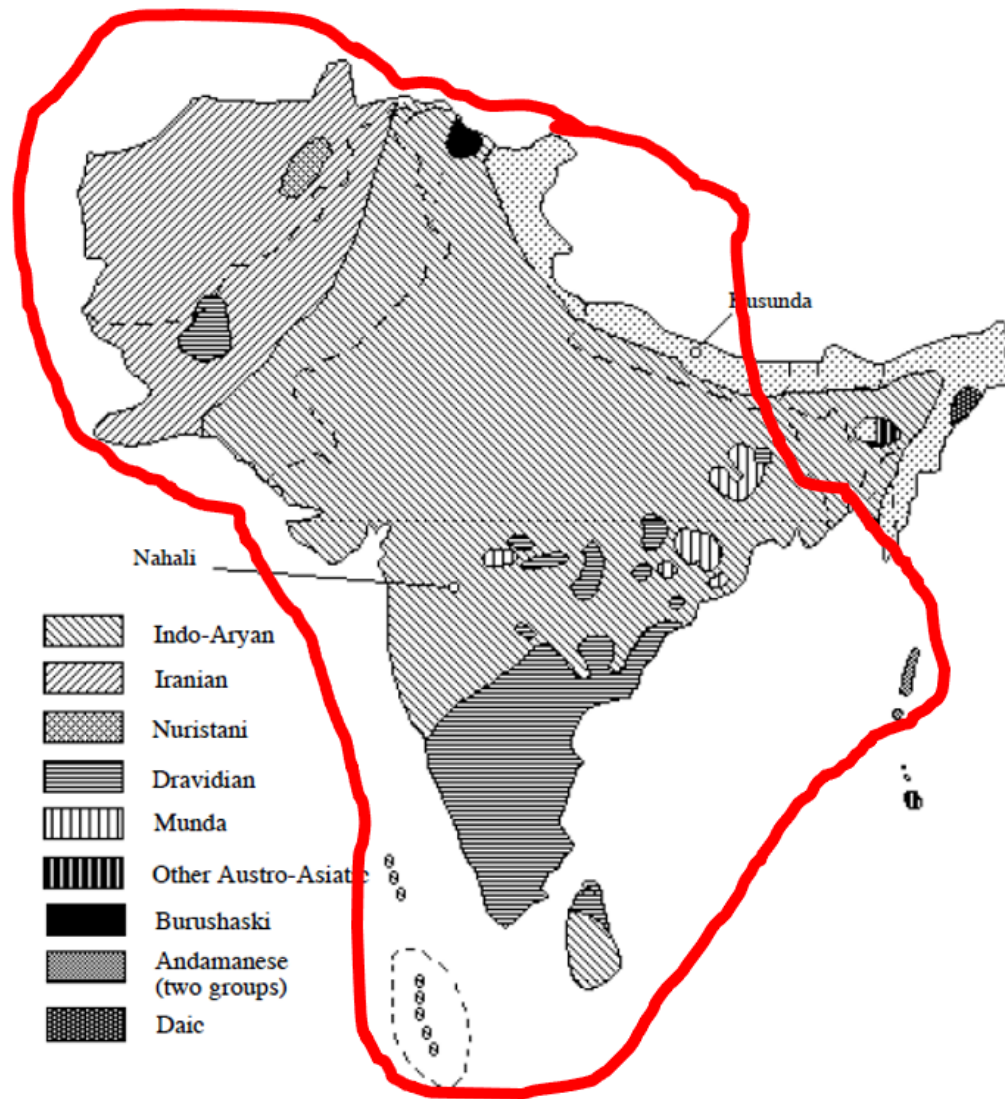
- Ackema, Peter, and Antonella Sorace. 2017. Auxiliary selection. *The Wiley Blackwell companion to syntax*, 2nd edn, ed. by Martin Everaert and Henk van Riemsdijk, 424-455. London: John Wiley & Sons.
- Aranovich, Raúl. 2003. The semantics of auxiliary selection in Old Spanish. *Studies in Language* 27(1): 1-37.
- Baldi, Benedetta, and Leonardo M. Savoia. 2019. Auxiliary selection in Italian dialects: Person split, Ocls and Radoppiamento Fonosintattico. *Quaderni di Linguistica e Studi Orientali/Working Papers in Linguistics and Oriental Studies* 5: 55-105.
- Drinka, Bridget. 2011. The sacred stamp of Greek: Periphrastic constructions in New Testament translations of Latin, Gothic, and Old Church Slavonic. *Indo-European syntax and pragmatics: Contrastive approaches*, ed. by Eirik Welo, 41-73. (*Oslo Studies in Language* 3: 3.)
- Drinka, Bridget. 2017. *Language contact in Europe: The periphrastic perfect through history*. Cambridge/New York: Cambridge University Press.
- Haspelmath, Martin. 2001. The European linguistic area: Standard Average European. *Language typology and universals*, vol. 2, ed. by Martin Haspelmath, Ekkehard König, Wulf Oesterreicher, and Wolfgang Raible, 1492-1510. Berlin: de Gruyter.
- Hock, Hans Henrich. 2021. *Principles of historical linguistics*, 3rd edn. Berlin/Boston: de Gruyter Mouton.

Issues in South Asian language contact

The case of retroflexion

Retroflexion –

- Contrast between dental and retroflex
- A major feature defining the South Asian convergence area
- Exceptions (Northeast): Indo-Aryan, Austro-Asiatic, Daic, most Tibeto-Burman



Retroflexion in South Asia (approximate distribution)

- Retroflexion is commonly attributed to Dravidian influence on Indo-Aryan
 - Starts with Pott 1833, 1836
 - Major recent proponents: Kuiper 1967 and especially Emeneau 1956, 1980, etc.
 - See also Krishnamurti 2003, Subrahmanyam 1983, Thomason & Kaufman 1988
- Dissenting voices
 - Bühler 1864
 - Konow 1906, Bloch 1925, 1929 (but Dravidian influence a contributing factor)
 - Hock 1975, 1984, 1996, 2021

Some general problems and concerns

- Chronology
 - Earliest Indo-Aryan ca. 1500 BC
 - Earliest Dravidian (Tamil) ca. 1st c. BC
- Time difference between earliest Indo-Aryan and Dravidian – ca. 1,500 years
- In Indo-Aryan, major linguistic changes happened over this time stretch

Sanskrit	Prakrit	
patati	pa(y)aĩ	‘falls’
dr̥ṣṭa-	diṭṭha-	‘seen’
enam	ṇam	‘him (CLIT)’

- It is hardly likely that Dravidian would have remained unchanged over the same time spread
- Comparing early Dravidian with early Indo-Aryan, separated by some 1,500 years, is problematic

- Chance similarities
- Bühler, Konow
 - More recently, Norwegian and Swedish varieties have acquired retroflexion
 - No contact with Dravidian

- Additional evidence
 - Several Central Kuki-Chin languages have retroflex *ɖ* (contrasting with dental *t*), where closely related Kuki-Chin and also some Naga languages offer a cluster – *tr* (or *ts*)

LANGUAGE		CLASSIFICATION
Hmar	t : ɖ	Central Kuki-Chin
Bawm	t : ɖ	Central Kuki-Chin
Lushai = “Mizo”	t : ɖ	Central Kuki-Chin
Paang	t : ts	Central Kuki-Chin
Laizo	t : tr	Northern Kuki-Chin
Thado	t : ts	Northern Kuki-Chin
Tiddim	t : ts	Northern Kuki-Chin
Mzieme	t : ts	Naga
Tangkhul	t : ts	Naga
Yimchungrü	t : tr	Naga

Retroflex : dental contrast in some Kuki-Chin languages (Hock MS)

- Hock 2020: $tr > \text{ɹ}$ – common change; parallels in other Tibeto-Burman languages, including early Chinese
- Neighboring Indo-Aryan (and Tibeto-Burman) languages have no dental : retroflex contrast, including Chakma (regional Bengali dialect, link language)

- Conclusion –
 - The Kuki-Chin development is indigenous and cannot be attributed to external contact
 - The similarity between Kuki-Chin and other South Asian languages must be accidental
 - Chance similarities, thus, are found even in “retroflex-happy” South Asia

Structural concerns (Bloch, Hock)

- Phonological systems of Sanskrit and reconstructed Dravidian are more different than expected if there had been Dravidian substratum influence on Sanskrit/Old Indo-Aryan

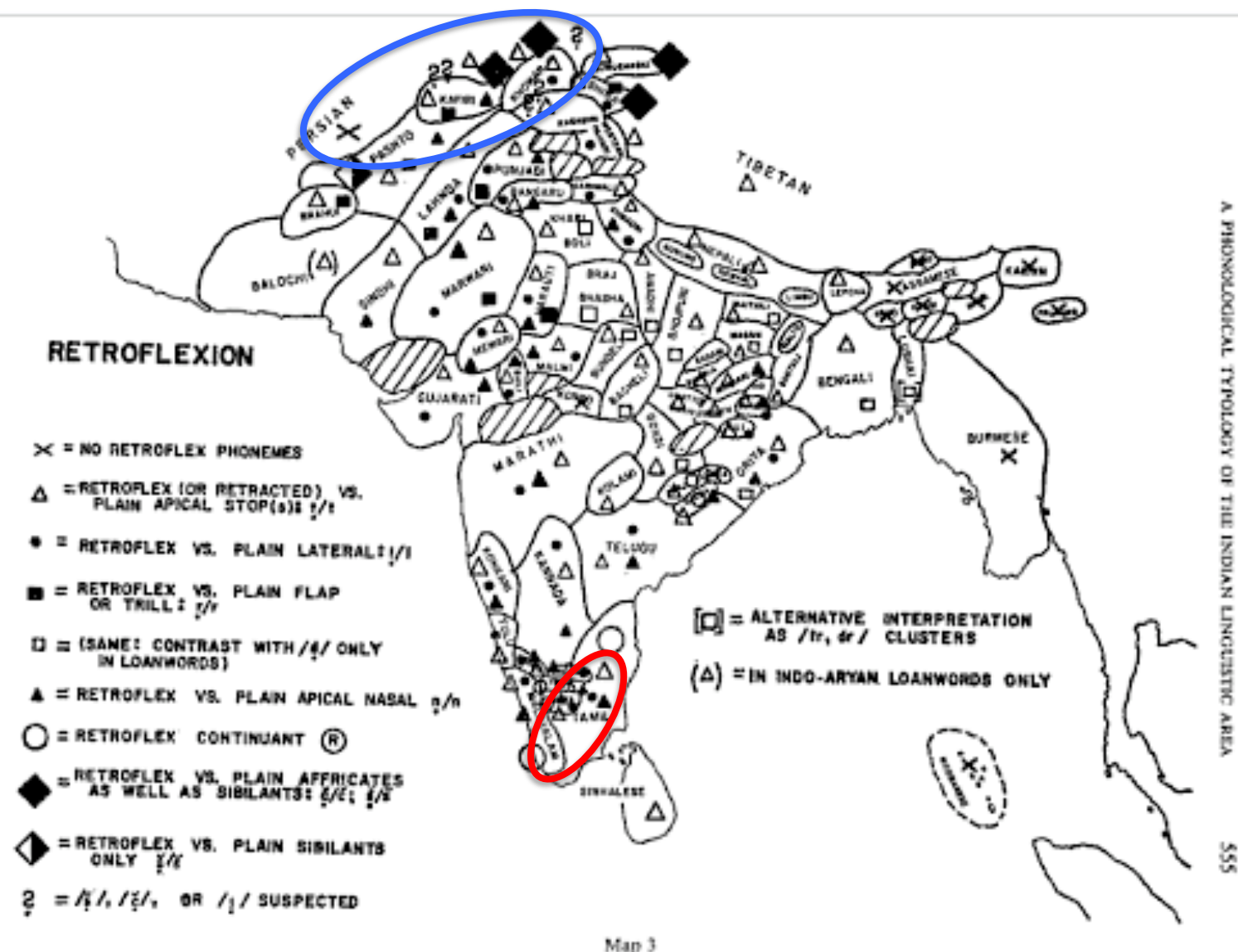
	SANSKRIT			PROTO-DRAVIDIAN		
	DENT.	ALV.	RETR.	DENT.	ALV.	RETR.
STOP	t		ṭ	t	<u>t</u>	ṭ
SIB.	s		ṣ			
NAS.	n		ṇ	n	<u>n</u>	ṇ
LIQU.	l				<u>l</u>	!
		r			r	ṛ

Figure 1: Comparison of Sanskrit and reconstructed Dravidian

Contrast Figure 2

INDO-ARYAN			DRAVIDIAN		
	DENT.	ALV. RETR.	DENT.	ALV.	RETR.
STOP	t	ʈ	t		ʈ
SIB.		s		s	
NAS.		<u>n</u> ṇ		<u>n</u> ṇ	
LIQU.		<u>l</u> (ɭ)		<u>l</u> (ɭ)	
		r		r	

Figure 2: Comparison of modern Indo-Aryan and Dravidian in central South Asia



Map 2: Modern relic areas with ɕ and ɻ

- Indo-Aryan retroflexion can be explained through internal changes

PIE	PIIr	pre-Skt. I	pre-Skt. II	Sanskrit	
* <i>wíkōs</i>	<i>wícas</i>	<i>viśas</i>		<i>viśas</i>	‘clan GEN.SG’
* <i>wikto</i>	<i>wišta</i>	<i>višta</i>	<i>višta</i>	<i>viṣṭa</i>	‘entered’
* <i>liǵhto</i>	<i>liždha</i>	<i>liždha</i>	<i>liṣḍha</i>	<i>līḍha</i>	‘licked’
* <i>wiso</i>	<i>wiša</i>	<i>viṣa</i>		<i>viṣa</i>	‘poison GEN.SG’
* <i>nizdo</i>	<i>nižda</i>	<i>nižda</i>	<i>niṣḍa</i>	<i>nīḍa</i>	‘abode’
* <i>vidos</i>	<i>vidas</i>			<i>vidas</i>	‘knowing.GEN.SG’

Hock 1984 et alibi –

- The fact that Sanskrit/Indo-Aryan retroflexion can be derived through internal developments further weakens the arguments for Dravidian substratum
- The Dravidian Substratum Theory cannot be considered established beyond a reasonable doubt

Thomason & Kaufman 1988 –

- The “reasonable doubt” criterion is too strict

Reply –

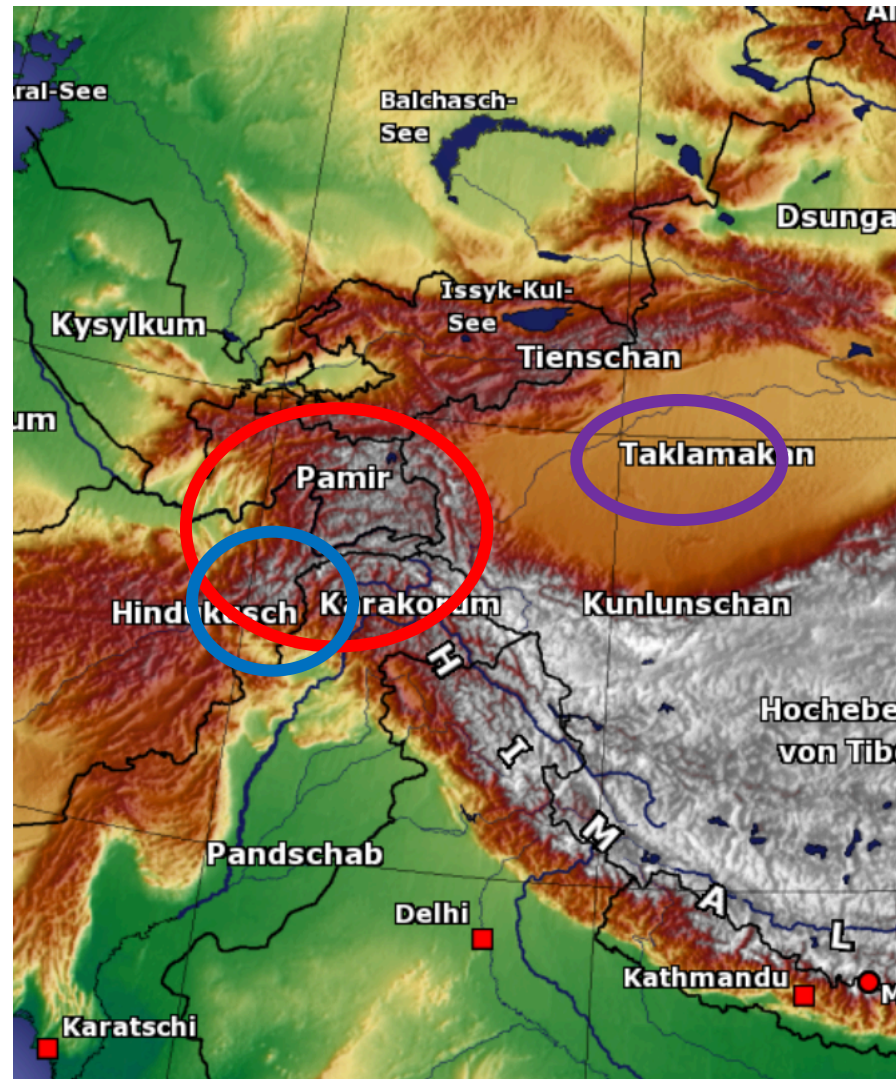
- The criterion has the heuristic advantage that it forces us to either find additional evidence in favor of the theory or to look for alternative explanations

Result: A standstill –

- Proponents of the Dravidian Substratum Theory remain unconvinced but do not come up with new evidence or arguments

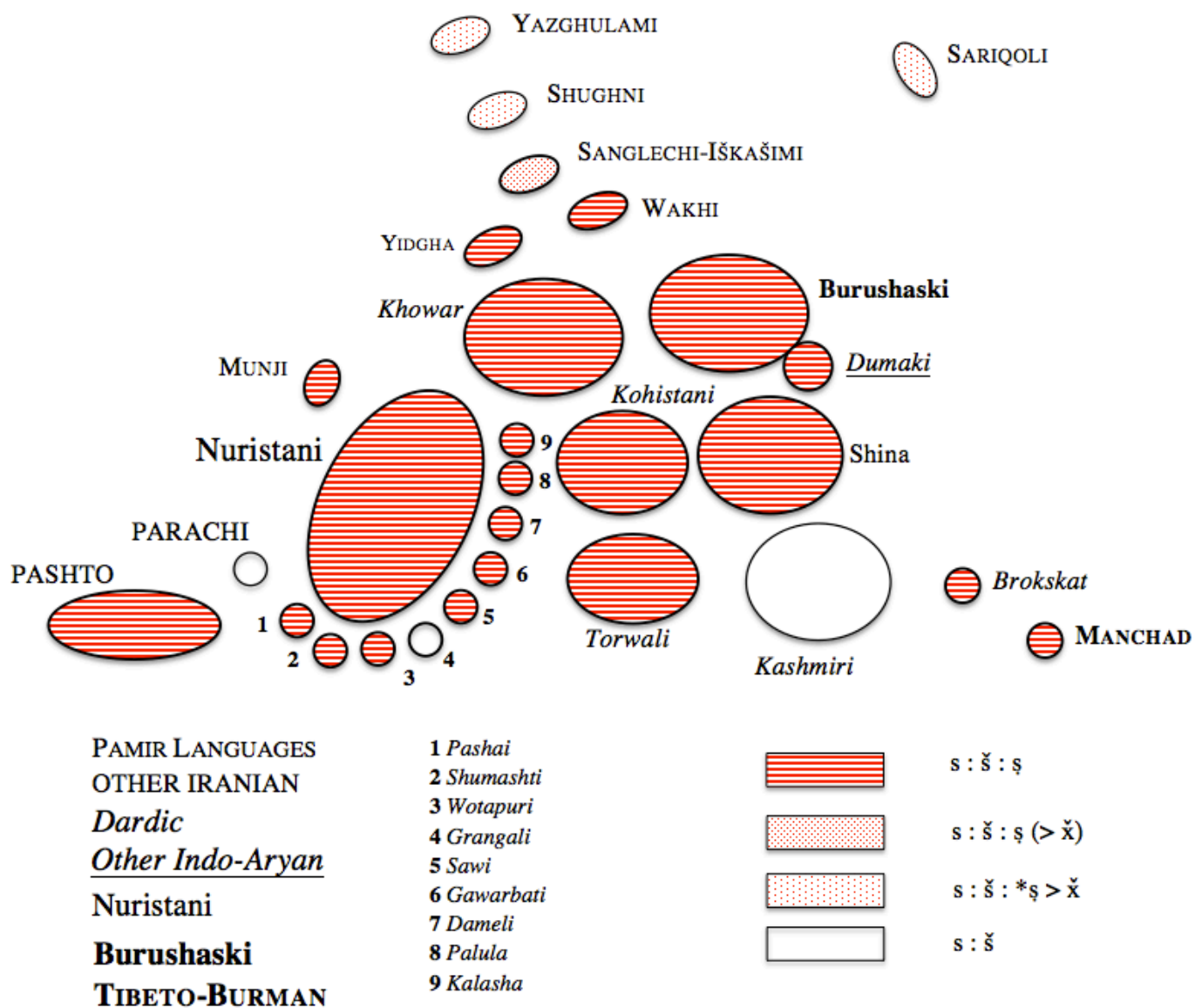
A “gnarly” alternative proposal

- Retroflex ṣ played a crucial role in the development of Sanskrit retroflexion ($\text{ṣt} > \text{ṣṭ}$ etc.)
- It was part of a rich system that distinguishes **three sibilants** – palatal ś , retroflex ṣ , and dental s
- Reconstructed Dravidian does not have any sibilants
- But the triple sibilant system is found in the northwestern transition area between South Asia and Central Asia (Hock 2015; similarly Tikkanen 2008, Liljegren 2017)



The northwestern transition area between South Asia and Central Asia
 (Modern area in **red**, Early Middle Indo-Aryan in **blue**, Middle Iranian Saka and Tocharian in **purple**)

- The area includes not only Indo-Aryan but also Iranian languages, Tocharian, Burushaski, and some neighboring Tibeto-Burman languages
- The area includes not only modern languages but also older ones
 - Early Middle Indo-Aryan (Aśokan Prakrit and Gandhari)
 - Middle Iranian Saka
 - Tocharian (roughly contemporary with earliest Dravidian)
 - Avestan (roughly contemporary with early Vedic)



Approximate modern distribution of sibilant contrasts in the Northwest (š = ś)

- Remarkably, different languages arrived at the triple sibilant contrast through different sound changes.

NW Middle Indo-Aryan

s , $\textcolor{red}{\dot{s}}$, \acute{s} remain

$\textcolor{red}{sr} > \textcolor{red}{\dot{s}}$

$\textcolor{red}{\acute{s}r} > \textcolor{red}{\dot{s}}$

Saka (Eastern Middle Iranian)

$*\check{s}$, $(*\acute{c}r >)$ $\textcolor{red}{sr} > \textcolor{red}{\dot{s}}$

$(*\acute{c}^y >)$ $s^y > \acute{s}$

$*\acute{c} > s$ (if not palatalized)

Tocharian

$*\textcolor{blue}{s}^y > \textcolor{blue}{\dot{s}}$

$(*\acute{d}^y >)$ $ts^y > \acute{s}$

$*s > s$ (if not palatalized)

Avestan (with **four** distinctions!)

$\acute{k} > s$

$\acute{k} / ___\text{C}$ and from s by RUKI $> \check{s}$

$\check{c}y > \acute{\check{s}}$

$\textcolor{green}{rt} > \textcolor{green}{\dot{s}}$ (under certain conditions)

Summary and conclusions

- The northwestern transition zone between South and Central Asia appears to be a convergence area with with a triple sibilant contrast $\acute{s} : \grave{s} : s$
- Where historical evidence is available, the contrast in the different language groups arose from different kinds of sound change
- The outcome is phonological convergence
- There is no evidence that would point to one or another language as originator of the triple contrast
- The contrast has all the appearances of being ancient, since it is already found in Rig Vedic Sanskrit and in Avestan
- The speakers of Indo-Aryan must have come through this area before reaching peninsular South Asia, and picked up (or introduced?) the triple sibilant contrast
- The development of retroflex stops must have taken place later

Dravidian reconsidered

- The triple stop contrast retroflex : alveolar : dental ($\text{ṭ} : \text{ṯ} : \text{t}$) appears to be innovated
- Morphophonemic alternations (e.g. Zvelebil 1970 and Krishnamurti 1961, 2003)

<i>kal</i> ‘stone’ + <i>tūṇ</i> ‘pillar’	:	<i>kattūṇ</i>	‘stone pillar’
<i>kaḷ</i> ‘booze’ + <i>tantāṇ</i> ‘gave’	:	<i>kaṭṭantāṇ</i>	‘gave booze’

i.e. $\text{ṯt} > \text{ṯt} > \text{tt}$
 $\text{ṭt} > \text{ṭt} > \text{tt}$

- Evidence of semantically related forms (Zvelebil 1970)

Tam. <i>kāl</i> ‘air, wind’	:	<i>kattu</i> ‘air, wind’ (< <i>*kal-tu</i>)
Tam. <i>urul</i> ‘to roll (itr.)’	:	<i>uruṭtu</i> ‘to roll (tr.)’ (< <i>*urul-tu</i>)

- Many similar sets of forms (Hock 1996), such as

Tam. <i>il</i> ‘house’ (494)	:	<i>iṭai</i> ‘eaves of a house ...’ (528)
Tam. <i>āl</i> ‘man ...’ (399)	:	<i>āṭti</i> ‘woman ...’ (400)
Tam. <i>cil</i> ‘some, few, small’ (1571) :		<i>ciṭu</i> ‘small, etc.’ (1594)
Tam. <i>col</i> ‘fine rice’ (Zvelebil)	:	<i>cōṭu</i> ‘boiled rice’ (2897)
Tam. <i>neru-nal</i> ‘yesterday’ (3578) :		<i>netṭu</i> ‘recently’ (ibid.)
Tam. <i>pāṇ</i> ‘song, melody’ (4068) :		<i>pāṭu</i> ‘sing, chant ...’ (4065)
Tam. <i>paḷḷi</i> ‘hamlet’ (4018)	:	<i>pāṭi</i> ‘town, city, hamlet’ (4064)

- Tikkanen 1987 and Hock 1996: All early Dravidian alveolar and retroflex stops resulted from assimilation to preceding alveolar or retroflex sonorants, no matter whether they are synchronically recoverable or no longer recoverable
- This account can explain that alveolar and retroflex stops occur only in non-initial position – clusters of liquid + stop, the input to these stops, are limited to non-initial position.
- Dravidian scholars, e.g. Krishnamurti 1961, Subrahmanyam p.c. 2017, reject this proposal – instances of alveolar and retroflex stops not supported by alternations must be reconstructed to the proto-language
- That is, a dual origination of alveolar and retroflex stops – assimilation for some instances, inheritance from Proto-Dravidian in others
- A prima-facie violation of Occam's Razor
- Especially since, over the long prehistory of Dravidian, many alternations would have become opaque through lexical loss

Putting two and two together

	ORIGINAL FORM		ASSIMILATION		FINAL OUTCOME
<u>DRAVIDIAN</u>					
i. ALVEOLAR	* <i>lt</i>	>	<i>l</i> <u><i>t</i></u>	>	<u><i>t</i></u> (<u><i>t</i></u>)
	* <i>rt</i>	>	<i>r</i> <u><i>t</i></u>	>	<u><i>t</i></u> (<u><i>t</i></u>)
ii. RETROFLEX	* <i>ɭt</i>	>	<i>ɭ</i> <u><i>t</i></u>	>	<u><i>t</i></u> (<u><i>t</i></u>)
	* <i>ɽt</i>	>	<i>ɽ</i> <u><i>t</i></u>	>	<u><i>t</i></u> (<u><i>t</i></u>)
<u>INDO-ARYAN/SANSKRIT</u>					
RETROFLEX	* <i>ʂt</i>	>	<i>ʂ</i> <u><i>t</i></u>	>	<i>ʂ</i> <u><i>t</i></u>
	* <i>ʐd(h)</i>	>	<i>ʐ</i> <u><i>d</i></u> (<i>h</i>)	>	<u><i>d</i></u> (<i>h</i>) (with comp. length)

- Parallelism
 - In both cases, dental stop assimilates to a preceding retroflex (or alveolar) segment, followed by developments that make the outcome contrastive

- Unless we choose to attribute this remarkable parallelism to chance, we will have to attribute it to convergence
- As in the case of the Northwestern triple sibilants, there does not seem to be any evidence that would favor one language over the other as source of the changes
- That is, as in the Northwest, there is no evidence for unidirectional substratum influence
- Bi- or multidirectional convergence is a viable alternative

Conclusions (South Asia)

- The fact that even in a “retroflex-happy” area like South Asia, some occurrences of retroflexion are accidentally similar to the rest of the area (Kuki-Chin) suggests that we need to exercise caution in accepting proposed contact explanations of South Asian retroflexion
- Further caution is warranted given the uneven chronological attestation of the different languages and language families in South Asia
- Such caution should – and can – lead to exploring alternative accounts

- The proposed account –
 - A first step, in the northwestern transition zone between South and Central Asia, introduces to Indo-Aryan a triple sibilant contrast that prominently includes a retroflex sibilant
 - The second step introduces retroflex stops through assimilations of dental stops to preceding retroflex sibilants and subsequent loss of conditioning environments
 - This development is mirrored in the Dravidian development of alveolar and retroflex stops through similar changes involving dental stops and preceding alveolar or retroflex liquids
 - A likely explanation: There was a bidirectional interaction between prehistoric Dravidian and Indo-Aryan, without any cogent evidence as to who gave what and to whom
 - Such bidirectional action seems to be widespread in South Asia, and it is also a feature of the northwestern transition zone between South and Central Asia

General conclusions and outlook

- The fact that Kuki-Chin languages developed retroflexion independently from the “retroflex-happy” general South Asian subcontinent shows that similarities between languages in the same general geographic area are not necessarily the result of language contact
- In many cases, “gnarly” investigations show that proposed historical accounts are not as strong as assumed (e.g. the Czech-German case, or the Dravidian Substratum Theory) or are factually incorrect (the case of the HAVE and BE perfects in Europe)
- In many cases, linguistic interaction is not of the unidirectional substratum type but operates in bi- or multidirectional fashion such that it is difficult to tell who gave what to whom (e.g. Czech and German, V2 in medieval Europe, the triple-sibilant contrast in the transition zone between South and Central Asia)

- In principle, in all cases of proposed convergence areas (or Sprachbünde) we should not be satisfied with accounts that do not meet the “beyond-reasonable-doubt” criterion. In the case of South Asia, adopting this criterion has led to a more nuanced alternative – a two-step account, the first step of which must have taken place in the transition zone between South Asia and Central Asia, before Indo-Aryan speakers entered the Subcontinent

- A specific aspect of the developments in the transition zone between South and Central Asia is the fact that different languages, through different changes, seem to have “conspired” to bring about the same result – a triple contrast between palatal, retroflex, and dental sibilants
- Notions such as structural borrowing or code copying fail to provide a convincing explanation, since no specific items are borrowed or copied. Interference and incomplete acquisition likewise do not provide satisfactory explanations

- A plausible explanation is the assumption that the driving force behind the developments is **accommodation** under bi- or multilingual conditions
- Accommodation has been shown to be at work synchronically in conversational interaction; see e.g. Pardo 2006, Pardo et al. 2013
- Accommodation may have favored the adoption of converging phonological variants that made it easier for speakers to engage in bilingual communication

Placing convergence in the communicative interaction between speakers in local settings, in fact, would seem to be the right approach, because that's where there is agency (Joseph 2007, Hock 2016a) – “Languages” don't interact, speakers do!

References

- Bloch, Jules. 1925. Sanskrit et dravidien. *Bulletin de la Société de Linguistique de Paris* 25: 1–21.
- Bloch, Jules. 1929. Some problems of Indo-Aryan philology. *Bulletin of the School of Oriental Studies* 5: 719–756.
- Bühler, George. 1864. On the origin of the Sanskrit linguals. *Madras Journal of Literature and Science*, No. I, Third Series, 116–186.
- Burrow, Thomas, & Murray B. Emeneau. 1984. *A Dravidian etymological dictionary*, revised edition. Oxford: Oxford University Press.
- Dante Alighieri. 1303-1305. *De vulgari eloquentia*, two vols. Paris: Corbon.
- DEDR = Burrow & Emeneau 1984.
- Emeneau, Murray B. 1956. India as a linguistic area. *Language* 32: 3–16. (Repr. in Emeneau 1980.)
- Emeneau, Murray B. 1980. *Language and linguistic area: Essays selected by A. S. Dil*. Stanford, CA: University Press.
- Grierson, George. 1903–1928. *Linguistic survey of India*, 11 vols. Calcutta. Repr. 1968, Delhi: Motilal Banarsidass.
- Hock, Hans Henrich. 1975. Substratum influence on (Rig-Vedic) Sanskrit? *Studies in the Linguistic Sciences* 5 (2). 76–125.
- Hock, Hans Henrich. 1984. (Pre-)Rig-Vedic convergence of Indo-Aryan with Dravidian? Another look at the evidence. *Studies in the Linguistic Sciences* 14 (1). 89–107.
- Hock, Hans Henrich. 2015. The northwest of South Asia and beyond: The issue of Indo-Aryan retroflexion yet again. *Journal of South Asian Languages and Linguistics* 2(1): 111-135
- Hock, Hans Henrich. 2016a. Convergence vs. subversion: Two perspectives on language contact and their relevance to South Asia. *Multilingualism and multiculturalism: Perceptions, practices and policy*, ed. by Supriya Pattanayak, Chandrabhanu Pattanayak, and Jennifer Bayer, 235-246. New Delhi: Orient Blackswan.

- Hock, Hans Henrich. 2016b. Other contact, regional and local. *The languages and linguistics of South Asia: A comprehensive guide*, ed. by Hans Henrich Hock and Elena Bashir, 309-325. Berlin/Boston: de Gruyter Mouton.
- Hock, Hans Henrich. 2020. Convergence or not? Geography, history, and chance. *Journal of South Asian Languages and Linguistics* 7 (2): 185-202.
- Hock, Hans Henrich. 2021. *Principles of historical linguistics*, 3rd rev. edn. Berlin/Boston: de Gruyter Mouton.
- Hock, Hans Henrich. MS. “East of the 84th meridian”? — The phonological evidence. Paper read at the 2019 Annual Meeting of the Societas Linguistica Europaea.
- Hock, Hans Henrich, & Brian D. Joseph. 2009. *Language history, language change, and language relationship: An introduction to historical and comparative linguistics*. Berlin & New York: Mouton de Gruyter.
- Joseph, Brian D. 2007. Broad vs. localistic dialectology, standard vs. dialect: The case of the Balkans and the drawing of linguistic boundaries. *Language variation – European perspectives II: Selected papers from the 4th International Conference on Language Variation in Europe (ICLaVE 4), Nicosia, June 2007*, ed. by Stavroula Tsiplakou, Marilena Karyolemou, and Pavlos Pavlou, 119–134. Amsterdam, Philadelphia: Benjamins.
- Konow, Sten. 1906. (Discussion in vol. 4: 279 of Grierson 1903–1928.)
- Krishnamurti, Bhadriraju. 2003. *The Dravidian languages*. Cambridge: University Press.
- Kuiper, F. B. J. 1967. The genesis of a linguistic area. *Indo-Iranian Journal* 10: 81–102. (Repr. 1974, *International Journal of Dravidian Linguistics* 3: 135–153.)
- Liljegren, Henrik. 2017. Profiling Indo-Aryan in the Hindukush-Karakoram: A preliminary study of micro-typological patterns. *Journal of South Asian Languages and Linguistics* 4(1): 107-156.
- Masica, Colin P. 1991. *The Indo-Aryan languages*. Cambridge: Cambridge University Press.

- Niedzielski, Nancy, & Howard Giles. 1996. Linguistic accommodation. *Kontaktlinguistik, contact linguistics, linguistique de contact*, vol. 1, ed. by Peter Nelde, Zdeněk Starý, Wolfgang Wölck, and Hans Goebel, 332–342. Berlin: de Gruyter.
- Pardo, Jennifer S. 2006. On phonetic convergence during conversational interaction. *Journal of the Acoustical Society of America* 119 (4): 2382–2393.
- Pardo, Jennifer S., Isabel Cajori Jay, Risa Hoshino, Sara Maria Hasbun, Chantal Sowemimo-Coker, and Robert M. Krauss. 2013. Influence of role switching on phonetic convergence in conversation. *Discourse Processes* 50(4): 276–300.
- Pott, August Friedrich. 1833, 1836. *Etymologische Forschungen auf dem Gebiete der indogermanischen Sprachen*, 1 and 2. Lemgo: Meyer.
- Ramanujan, A. K., & Colin P. Masica. 1969. Toward a phonological typology of the Indian linguistic area. In Thomas A. Sebeok (ed.), *Current trends in linguistics* 5: 543–577. The Hague: Mouton.
- Subrahmanyam, P. S. 1983. *Dravidian comparative phonology*. Annamalainagar: Annamalai University.
- Thomason, Sarah Grey, and Terrence Kaufman. 1988. *Language contact, creolization, and genetic linguistics*. Berkeley & Los Angeles: University of California Press.
- Tikkanen, Bertil. 1987. *The Sanskrit gerund: A synchronic, diachronic, and typological analysis*. (Studia Orientalia, 62.) Helsinki: Finnish Oriental Society.
- Tikkanen, Bertil. 2008. Some areal phonological isoglosses in the transit zone between South and Central Asia. *Proceedings of the Third International Hindu Kush Cultural Conference*, ed. by Israr-ud-Din, 250–262. Karachi: Oxford University Press.
- Zvelebil, K. 1970. *Comparative Dravidian phonology*. The Hague: Mouton.