## MYSTERIES OF VERB－VERB COMPLEXES IN ASIAN LANGUAGES

A descriptive account of South Asian verbal extension：
Inferring the semantic conditions on the alternation of Vx with V


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## Alternation.

## Morpho-syntax is secondary.

In the study of Type Four V-V complexes the most important questions to ask are these two:

1. Do the V-V complexes alternate with simple Vs?
2. Under what semantic or pragmatic conditions?

Identifying reliable ways to answer these two questions is the over-arching theme of this address.

## Organization

1. Definition of verb extension ([Vv] and [Vx])
2. Five [or six] types with examples
3. Geographic distribution
4. Vv flux: inhibiting and promoting factors
5. Effect of genre [brief]
6. History and evolution [brief]
7. Are functions hierarchizable? [very brief]
8. The 'Vv challenge'
9. Appendices

## Alternation is the key notion.

i. The extended Vx alternates with corresponding unextended V under definable conditions.
ii. The extender* alternates with its absence with little or no translatable difference in meaning [into langs like English or Sanskrit lacking Vx's]
iii. Extended Vx expresses a single action or event. iv. The extender is "bleached" to varying degrees.
[*In Type 4 Vv 's: the 'extender' = the vector verb.]

## Excluding Vx＇s that have parallel structures．

Type 1 ［phisal parnā（＜＝phisal－kar gir parn $\bar{a})$ ，［suberi－ očiru 滑り落ちる］slip－fall＝＇to slip and fall＇］is excluded by criterion iii＂Extended Vx expresses single action or event＂ and criterion iv＂Extender is bleached to varying degrees＂．

Type 2 ［čal basnā move－settle＝＇to pass away，die＇］is excluded by criterion i＂Extended Vx alternates with corresponding unextended V under definable conditions＂．

Type 3 ［čal saknā move－can＝＇to be able to move＇］is excluded by criterion ii＂Extender alternates with its absence with little or no easily translatable difference in meaning＂．

## types of verbal extension

1. By prefix and/or accentual shift:
(Pashto) taaraá 'tie!' vs. wá.taaraa 'tie up!'
2. By adverb [often homophonous with 'away'] in Rajasthani, Bhili, Dhātki, Himachali [and Vedic?]: iṇ sāl em-ed kar par- $\bar{a}-r$ āy $\bar{a}$ hai this year M.-Ed. do AWAY-Mpl-Ger come have '(They) have completed the M. Ed. this year.' [Bahl (1980: 120)]
3. By pairing of full forms of both main and vector verb [v2]: N. Dravidian, Mundan, Limbu, Persian:
a. mi ne-gar-ru ne-la?-ru

I 1sg-eat-Pst 1sg-STRIKE-Pst
'I ate it up.'
(Gorum, South Mundan)
b. جرا بی خداحافظى كذاشتى رفتى
(Persian)
čero be-xodohวfezi godošt-i raft-i why without-farewell PUT-2sg went-2sg 'Why did you leave without a "Good-bye"?'
[thanks to Fatemeh Nemati]
4. Past tense form of main verb plus inflected form of vector [v2]: Austroasiatic, Dravidian, MIA ...
so jā.u jji mu.u (Apabhramsha, MIA) he WENT Prtcl died
'He died.' [paumačariu 36.5.9] (from Bubenik 1998: 113)
5a. Gerund [Ger] of main verb plus inflected form of vector: in most Indo-Aryan, Dravidian, and some Tibeto-Burman) aši tsuki-či samadzut kar-un ghe-un dtā-u nako such mistake-Gen idea do-Ger TAKE-Ger go-Inf Neg
'Don't leave with such a misunderstanding!' [mimarathi.net]

## Hindi-Urdu's type of verbal extension

5 b . The bare stem of main verb plus inflected form of the vector: Hindi-Urdu, Panjabi, some Tibetic mã̃̃-ne rassī-ko sarp samajh liy. $\bar{a}$
I-Erg rope-Acc snake understand TOOK
'I understood the rope (to be) a snake.'

> [vivek-jivan.blogspot.com/2010/06/24.html]

Types 5 a and 5 b will be the focus of attention in this talk.

## the three least marked vectors of Hindi-Urdu

$$
\mathrm{V} \Leftrightarrow \mathrm{Vv}
$$

Transitive: rakh-nāarakhde/le-nā to put' put-Inf $\Leftrightarrow$ put GIVE/TAKE-Inf
Intransitive: gir-n $\bar{a} \Leftrightarrow$ gir $j \bar{a}-n \bar{a}$ 'to fall' fall-Inf $\Leftrightarrow$ fall GO-Inf
Semitransitive: pakar-n $\bar{a} \Leftrightarrow$ pakarlle-n $\bar{a}$ catch-Inf $\Leftrightarrow$ catch TAKE.Inf

$$
\begin{aligned}
& k h \bar{a}-n \bar{a} \Leftrightarrow k h a \bar{a} l e-n \bar{a} \Leftrightarrow k h \bar{a} j \bar{a}-n \bar{a} \\
& \text { eat-Inf } \Leftrightarrow \text { eat TAKE-Inf } \Leftrightarrow \text { eat GO-Inf }
\end{aligned}
$$

Similar to verb classifiers of NW Australian?

## alternation

(1a) use dillī bhej.o
(1b) use dillī bhej d.o
(V) 16
(Vv) 19 him Delhi send! send GIVE! 'Send him to Delhi.'
(2a) vo jald̄̀ so. $\bar{\imath}$
(V) 6
(2b) vo jaldī so ga. $\bar{l}$
(Vv) 21
she soon slept sleep WENT 'Soon she went to sleep.'

## extended form expresses a single action

1. $x \bar{a} l \bar{\imath}$ gilās mez-par rakh.e the (V) 50+ empty glasses table-on put had
'He had set the empty glasses on the table.'
2. xāl̄̄ gilās mez-par rakh di.e the (Vv) 21 empty glasses table-on put GIVEN had 'He had set the empty glasses on the table.'

## bleaching

1. kabhī.kabhī g̀ussā-bhī ā.tā.hai (V) 6 sometimes anger-too comes 'Sometimes X even gets angry.'
2. kabhī-kabhī g̀ussā-bhī $\bar{a} \quad j \bar{a} . t a \bar{l} . h a i$ sometimes anger-too come GOES 'Sometimes X even gets angry.' (Vv) 1
occasionally ambiguous: one action or two?
$\mathrm{V}+\mathrm{V}$ [two actions]: vo čikan khā (-kar) gayā he chicken eat (-Ger) went 'He ate the chicken and left.'

Vv [one action]: vo čikan khā (*-kar) gayā he chicken eat (*-Ger) went
'He "went and" ate the chicken.'

## expression of a single action or event?

Hindi: phāgun.kī mast bahār $\bar{a}$ jā.t̄̄.hai phalgun's delightful spring come GOES 'Phalgun's delightful spring comes.'

Marathi: vasant pāhunyā sārkhā ye-un dzā.to spring guest like come-Ger goes
'Spring - like a guest - comes and goes.'

## distinguishing SVCs from Vv's

(1) us-ne apnī qābiliyat dikhā dī [Vv] he-Erg his ability show GAVE 'He showed his ability.' (Hindi-Urdu)
(2) sukoši yūki-o mise-te kure-ta [Vv] a.little courage-Acc show-Ger GIVE-Pst '(He) showed a little courage.' (Japanese)
(3) tā xiăn.šì ch $\bar{u}$ le qián.lì [SVC] he reveal emerge Prfctv potential 'He showed his potential.'

## Excursus

For V-Vs and Vvs in Mandarin and Hindi-Urdu see:

Liang, H. and P. Hook. 2006. The compound verb in Chinese and Hindi-Urdu and the plausibility of the Indo-Turanian linguistic area. In Masica, ed. Old and New Perspectives on South Asian Languages. Delhi: Motilal Banarsidass. Pp. 105-126.

For now skip to slide \# 24.

## extended verbs $\neq$ serial verbs

(1a) šāhīn ur gayā
(1b) lăo.ȳ̄̄ fēi zŏu.le
eagle fly wENT
'The eagle flew away.'
(2a) mazdūrõ.ne dīvār girā dī
(2b) gōทrén bă-qiáy zá dăo.le workers Acc-wall knock GAVE / fell 'The workers knocked down the wall.'

## Mandarin's SVC's versus Hindi's Vv's and SVC's

Mandarin: X did J to $\mathrm{Y}=>\mathrm{Y}$ K'ed $\quad=\quad \mathrm{X}, \mathrm{Y}(\mathrm{J}) \Rightarrow \mathrm{Y}(\mathrm{K})$ [where J is the cause of K and K is the effect of J ]
(M) lăo.hǔ yăo sǐ le tā $\quad[\mathrm{XJY} \Rightarrow \mathrm{KY}]$ Patient-oriented tiger bite die Prfv him 'The tiger bit (him) and he died.' (Speaker expresses the link.)

Hindi-Urdu: X did J to Y and X Z'ed $\mathrm{Y}=\mathrm{X}, \mathrm{Y}(\mathrm{J})+\mathrm{X}, \mathrm{Y}(\mathrm{Z}[\mathrm{z}])$ [where J is followed by Z (and Z includes K )]
(H) šer-ne use kāţ-kar mār diyā [XYJ+XYZz] Agent-oriented lion-Erg him bite-Ger kill GAVE
'The lion bit and killed him.'
(The hearer infers the link.)

Mandarin's non-resultative V-V compounds (=SVC's) versus Hindi-Urdu's Vv compounds

- In Mandarin the 15 most common second members of non-resultative V-V compounds are chū, shàng, zháo, duàn, sǐ, zhù, dào, zǒu, xià, kāi, diào, dào, lái, qù, and jiàn. Of these 15 items only the last (jiàn) might be transitive.
- In Hindi-Urdu transitive main verbs usually select transitive vectors. Intransitive main verbs almost always select intransitive vectors.


## separate negatability in Mandarin SVC's

(1) wǒ.men shēng bù zháo huǒ we light Neg AtTACH fire 'We (try to) light the fire (but it does) not light.'
(2) ham $\bar{a} g$ nahĩ lagā-(*de-)te.hãa (Hindi-Urdu) we fire Neg light-(GIVE-)HabPres 'We don't light the fire.'
(3) išq hai vo ātiš ki lag-ā-e na lag-e love is that fire that light-Tr-AdvPart Neg light-s 'Love is the fire that doesn't light if you (try to) light it.' (Ghalib)
distinguishing Mandarin SVC's from Hindi-Urdu Vv's
In Hindi-Urdu the vector acts as a semantic diacritic on the situation represented by the clause as a whole. In Chinese the scope of the 'vector' is narrower: It indicates a conceptually distinct component of a complex situation or event, one which often follows temporally or logically as a consequence or result of the action denoted by the main verb. [Compare the analysis of events into 'sub-events'.]

## Vv flux

Vv flux is the frequency of Vv's (as opposed to V 's) encountered in connected discourse or text.

Vv flux varies from language to language; within a language, from style to style and from speaker to speaker, and within a speaker from day to day!

Vv flux varies over time. The data available from historical records indicates a monotonic increase.

## the increase in Vv flux over six centuries

[chart created by Venkadeshan for Hook \& Pardeshi, MS]


## Variation across time in ratios of compound verbs to total verbs in Marathi texts

| Text | Author | Text type | Text dates | Total | CVs | CV \% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| dzāi-dzui: | Y.G. Joshi | stories | mid $20^{\text {th }}$ cent | 960 | 30 | 3.0 \% |
| prastāvanā | V.S. Khandekar | criticism | mid $20^{\text {th }}$ cent | 950 | 39 | 4.1\% |
| mājhyā kathā ... | N.S. Phadke | essay | early $20^{\text {th }}$ cent | 720 | 20 | 2.8\% |
| pešavān-či bakhar | Balaji G. Karkun? | chronicles | late $19^{\text {th }}$ cent | 1400 | 28 | 2.0\% |
| bhāusāhebān-či bakhar | Krishnaji Shamrao? P. C. Govind? | chronicles | late $18^{\text {th }}$ cent | 1200 | 15-18 | 1.3-1.5\% |
| pāṇipat-či bakhar | Raghunath Yadav | chronicles | late $18^{\text {th }}$ cent | 1200 | 18 | 1.5\% |
| dās-bodh | Ramdas Svami | sermons | $17^{\text {th }}$ cent? ${ }^{\text {a }}$ | 850 | 10 | 1.2\% |
| šritukārāmāči gāthā | Sant Tukaram | poetry | $16^{\text {th }}$ cent? ? | 861 | 6 | 0.7\% |
| šrijñānešvari | Sant Dnyaneshvar | commentary on the Gita | $13^{\text {th }}$ cent | 626 | 2 | 0.3\% |
| lilāčaritr | Mhaimbhat | anecdotes | late $13^{\text {th }}$ cent | 1610 | 3 | 0.2\% |

## secular decrease in flux?

Indirect evidence for partial recruitment of v 2 in erstwhile Vv's as a past tense morpheme in the Shina of Gilgit:

1. ma ḉā bi-g-as
I.Nom cold become-Pst.1sgM (< WENT-M1sg?)
'I became cold.' [The form bi-g-as does not alternate.]
2. Ḉā b-èé ma hamām-et g-ās cold become-Ger I.Nom bath-LocDat went-M1sg 'Feeling cold, I went to the baths.' (Hook and Zia 2005)
[A similar conjecture for Kashmiri's use of gatsh- 'go' in the sense of 'become'? *bo.yith gav => gav 'became'?]

## Geographical distribution: /// $=\operatorname{SOV}(\mathrm{v})$ languages



## Geographical distribution inside South Asia

G.A. Grierson's Linguistic survey of India [LSI] shows the alternation of Vv with corresponding V is found in almost every one of South Asia's thousand-odd languages but the LSI also shows that the probability of Vv manifestation [or Vv flux] varies from place to place: In Indo-Aryan languages it is high in the center and northwest, medium in the east, and low in the southwest.

## the same connected text translated 723 times

"A man had two sons. One of them said '[1. Give me my share of the inheritance.]' He collected his share and [2. he went away to a distant land]. There [3. he spent (or wasted) all that he had]. In that country [4. a famine fell]. He became poor and went to live with a rich man. [5. The rich man sent him to his fields to graze pigs] ..." [Many of the returns are cut at this point. Fuller versions of these (and hundreds of others) are lying in cardboard boxes in the India Office Library in London.]
Dots on the map are color-coded: $\mathbf{0}, 1,2,3,4,5$. Next...


## Isopleths were drawn.

An isopleth is a line on a map connecting points having equal incidence of a specified linguistic feature. The points on the preceding map were grouped into one degree by one degree squares, their values totaled and divided by their number to yield deciles on the basis of which I made a contour map of Vv flux in Indo-Aryan languages of South Asia as current 90-100 years ago.


## uses of data on Vv frequency

The contour map shows aggregated totals for the five points in the Parable of the Prodigal Son in which there was variation among the returns.
A more specific measurement provides some clues on a semantic condition favoring Vv .
Compare the mapped data for points 2 through 5 in the story: $\{$ went $\},\{$ spent $\},\{$ fell $\}$ and $\{$ sent $\}$ :

## ... went away to a distant land ...



## ... spent / wasted all that he had ...



## ... a famine fell ...



## ... he sent him to his fields ...



## compare all four points placed side by side



## What conditions the differences in distribution?

1. There are two intransitives and two transitives. But the distribution for $\{$ went $\}$ is quite similar to the distribution for $\{$ spent $\}$ while the distribution for \{fell\} is more similar to the distribution for $\{$ sent $\}$ than it is similar to the distribution for $\{$ went $\}$.
2. Notice, however, that the subject of $\{$ went $\}$ and the object of $\{$ spent $\}$ leave their prior positions or disappear; while the object of $\{$ sent $\}$ and the subject of $\{$ fell $\}$ do not leave the scene or disappear.
This suggests hypotheses which can be tested.
deixis as a contributing factor - transitives
(1a) $x$ yahãã bhej.o
(1b) x yahãã bhej d.o
(V) 10
$x$ here send! send GIVE! 'Send (x) here.'
(2a) $x$ vahãã bhej.o
(V) 6
(2b) $x$ vahãã
bhej d.o
(Vv) 15
$x$ there send! send GIVE! 'Send (x) there.'
[Data insufficient for running a chi-square test.]
deixis as a contributing factor - intransitives
(1a) bas pahũč. $\bar{\imath} \quad t h \bar{l}$ (V) $9 / 15 / 10=34$
(1b) bas pahũčga.ī thī (Vv) 2/6/1=9 bus arrived arrive GONE had 'The bus had arrived.'
(2a) bas nikal.ī
thī (V) $7 / 1 / 5=13$
(2b) bas nikal ga.ī th $\bar{\imath}$ (Vv) 6/6/6=18 bus departed depart GONE had 'The bus had departed.'
The $2^{\text {nd }}$ set is for $g \bar{a} r \underline{\imath} \overline{1}$ 'car'; $3^{\text {rd }}$ set is for $t$ ren 'train'.

## $\chi^{2}$ test

|  | arrive [pahũč-] | depart [nikal-] | Row Totals |  |
| :--- | :--- | :--- | :--- | :--- |
| V (27.31) | 13 (19.69) | 47 |  |  |
| Vv = V + vector GO | 9 (15.69) | 18 (11.31) | 27 |  |
| Column Totals | 43 | 31 | $74 \quad$ (Grand Total) |  |

The Chi-square statistic is 10.7189 . The P value is 0.00106 . This result is significant at $\mathrm{p}<0.01$

If the fact of motion lacks an immobile frame ... ?
1/2 gubbāre-kī havā nikal.̄̄ (7) ... nikal ga.ī (8) balloon-Gen air left leave WENT 'The air went out of the balloon.'

3/4 mãa nikal.ā thā (29) mãã nikal ga.yā thā (1) I left was I leave GONE had

5
'I had gone out.'
[Use of par- FALL as in 5 is a special feature of $\mathrm{H}-\mathrm{U}$ Vv's]

## External semantic factors:

'with ease' versus 'with difficulty'

1. $\bar{a} s \bar{a} n i-s e ~ m i l a$
ease-with got $\quad \begin{aligned} & \text { 2. } \bar{a} s a ̄ n i-s e ~ m i l ~ g a y ~ \\ & a\end{aligned}$ (36) $\begin{aligned} & \text { ease-with get WENT }\end{aligned}$
'...was obtained with ease.'
2. muškil-se milā (27) 4.muškil-se mil gayā
difficulty-with got difficulty-with get WENT
'... was obtained with difficulty.'
Subevental distinction?
'With ease' focuses on result; 'with difficulty', on process.

## External factors that inhibit or disfavor Vv's

1. Dependence on verbs of phase $\{$ begin / start V-ing \}, \{begin / start to V\}, \{stop / quit V-ing\}, \{keep V-ing \}
2. Activation of contrastive conativity in V
3. Negation
4. Wh-words
5. Language-specific syntactic environments

In general the greater the overall flux of Vv's, the narrower the range of environments open to them.
See Hook 1991.

## External factors that inhibit Vv's:

 dependence on verbs of phase \{begin or start V -ing or to V \}$$
\begin{array}{lc}
\text { 1. gir-ne diyā (25) } & \text { 2. gir jā-ne diyā } \\
\text { fall-Inf gave } & \text { fall GO-Inf gave } \\
\text { '....allowed (x) to fall.' } & \text { [no syntactic bar] } \tag{0}
\end{array}
$$

3. gir-ne lagā (100+) 4. gir jā-ne lagā fall-Inf began fall GO-Inf began [a subevental conflict?]
[This was first noticed by Vincenc Pořízka 45 years ago.]

## External factors that inhibit Vv's:

dependence on verbs of phase: \{stop V-ing, quit V-ing \}

1. bhej-n $\bar{a}$
2. bhej de-n $\bar{a}$ čāhie thā
send-Inf send GIVE-Inf should had
[again no syntactic bar]
3. bhej-n $\bar{a}$
band kar diya $\bar{a}$ th $\bar{a}$
4. bhej de-n $\bar{a}$ band kar diy $\bar{a}$ th $\bar{a}$
send-Inf send GIVE-Inf shut do GIVEN had '(x) had stopped sending (y).'

Subevental difference? Counterfactual 'should have V'ed' focuses on result. But phasal verbs?

## External semantic factors:

## Activation of contrastive conativity in $\mathrm{V}[* \mathrm{Vv}]$

1. kārd ḍhũưrhā lekin milā nahĩı card searched but got Neg
'I looked for my card but couldn't find it.'
[is-was-willbe.blogspot.com/2008/04/5-april saturday.html]
2. kārd ḍhũưṛh liyā (*lekin milā nahĩ̃) card search TOOK but got Neg 'I found my card (*but couldn't find it).
[This phenomenon was noticed by Harender Vasudeva 40 years ago.]

## External semantic factors:

Negation in general suppresses Vv manifestation
(1a) vāpas bhej.o
(1b) vāpas
bhej d.o
back send! send GIVE!
'Send x back!'
(2a) vāpas mat bhej.o
(2b) vāpas mat bhejd.o back don't send! send GIVE! 'Don't send x back!'
[This phenomenon is noticed in most grammars of Hindi or Urdu.]

## Suppressive semantic factors: Wh-words rarely co-occur with Vv's

(1a) māl bhej.ā hai
(1b) māl bhej diy. $\bar{a}$ hai goods sent has send GIVEN has
'[X] has sent the goods.'
(2a) kyā bhej.ā hai?
(V) 30
(3b) ky $\bar{a} \quad$ bhej diy. $\bar{a}$ hai?
what sent has send GIVEN has
'What has [X] sent?'
[This phenomenon was noticed by Burton-Page (1957).]

## Environments that promote Vv 's

1. In clauses dependent on expressions of fear or anxiety. 'I am afraid that (= lest) you might get mad at me.'
2. In clauses expressing limit of a related action.
'Don't go anywhere until I get there.'
3. In clauses expressing action anterior to another action.
'By the time I got home my lips had swollen up like dumplings.'
clauses dependent on expressions of fear or anxiety (three concomitants are required)
4. ḍar hai ki kahĩl ovarḍoz na ho jā-e fear is that lest overdose Neg become GO-Sbjnctv 'I'm afraid there might be an overdose.' [merekavimitra.blogspot.com]
5. ḍar.tā hũũ ki kahĩı bigar na jā-o tum fearing am that lest get.mad Neg GO-Sbjnctv you 'I'm afraid you might get mad (at me).'
[http://mere--words.blogspot.com]
[With 3 concomitants present this structure excludes V (except for dependent clauses headed by statives).]

## clauses expressing a limit (1) or anterior action (2)

1.jab-tak mã̃̃ na $\bar{a}$ jā-ũũ tab-tak kahĩ̃ na jā.nā when-till I Neg come GO-Sbjnctv then-till anywhere Neg go
'Don't go anywhere until I get there.' [pakhi-akshita.blogspot]
2. jab-tak ghar pahũc̄ā hõth sūj-kar vare ke samān ho gae the when-by home got lips swell-Ger dumplings be GONE had 'By the time I got home my lips had swelled like dumplings.'
[hindivichar.com]
[These 2 environments are Vv-promoters but not so strongly so as clauses dependent on expressions of fear or anxiety.]

## effects of genre on Vv flux

1. Formal text versus narrative: legal documents
2. Headline (a) vs. body (b):
(a) barāt choR $\bar{a} ; b h \bar{a} g \bar{a} d u l h \bar{a}$ wedding.procession left fled groom '(The groom) left the barat; the groom fled.'
(b) šādi-se.pahale dulhā ghar-se bhāg gayā wedding-before groom home-Abl run WENT
'The groom ran away from home before the wedding.'
3. Compare overuse of は?
[See Burton-Page (1957), Hacker (1958), Hook (2001).]

## vector Vv's and factor Vfv's

(1a) zamīn-par
gir gay $\bar{a}$
(1b)
dhartī-par gir $\bar{a} y \bar{a}$
ground-on Earth-on fall CAME WENT 'He fell on the ground / fell to the Earth.'
(2ab) $\tilde{a} \tilde{a} k h o ̃ ~ m e \tilde{a} \tilde{a} s \bar{u} \quad$ bhar gae / $\bar{a} e$
(2cd) ããkhe ããsuõ-se bhar gaĩ / ā̃̃ eyes in tears-with fill WENT CAME '(His) eyes filled with tears.'

## overlapping fuzzy categories



## vector Vv's and factor Vfv's

(1) us-ne vo kitāb khoj nikāl̄̄ hai jo ... he-Erg that book search taken.out has which
'He has found the book that ... ' [uttaranchal.yuku.com]
(2) haha.no-hi-no purezento-o yatto sagaši-dašita! Mother's-Day-Gen present-Acc finally search-took.out
'I finally found a Mother's Day gift!'
[twitter.com/makirom]
See Hook (2013) for more on the distinction of Vv's and Vfv's and the implications for evolution of Type 4 Vv 's from Type $1 \mathrm{~V}-\mathrm{V}$ 's.

## divergent function in convergent form: Hindi-Urdu vs. Marathi

1. $x \bar{a} l \bar{\imath}$ gilās mez-par rakh diye
[Hindi-Urdu] empty glass table-on put GAVE 'He set the empty glasses on the table.'
2. tyā-na te pustak rak-varthev-un di.l.e [Marathi] he-Erg that book rack-on put-Ger GAVE
'He set the book on the rack.'
(www.marathinovels.net/2008/09/marathi-litearature-black-hole-ch-49.html)

## ratios of Vv 's to totals of $\mathrm{Vv}+$ corresponding V 's

ti padun ge.l.i 1 / ti paḍ.l.i $19 \Rightarrow 1 / 20=5 \%$ vo gir gā 17 / vo gir $\bar{\imath} \quad 25=17 / 42=46 \%$ '...she fell...'
pakadun dilā / ghetlā // pakaḍ.lā $=>9 / 280=3 \%$ use pakar diyā / liyā //use pakaṛā => 212/371 = 58\% '... caught (him)...'
khāli thev.un dila / khāli thev.la $=>1 / 19=5 \%$ nīce rakh dī / lī // nīce rakhī => 21/93 = 23\% '...placed it below...'
characteristic contrast: conative vs completive

1. khup šodh.l.e paṇ mil.at nāhiye much searched but getting Neg.is
'I looked (for it) a lot but can't find it.'
(www.maayboli.com/hitguj/messages/35/115839.html)
2.te šodh-un kädh.l.e (*paṇmil.at nāhiye) it search-Ger TOOK.OUT but getting Neg.is 'I found it (*but can't find it).'

## Hindi vs. Marathi: Vv's with phasal verbs



## Hindi vs. Marathi CVs with phasal verbs

1. samajh.ne lag $\bar{a} 100+$ 2. samajh le.ne lag $\bar{a} 0$ understand began understand TAKE began
'... began to understand...'
2. samadz.u lāg- 38 4. samadz.un ghe.u lāg- 4 understand began understand TAKE began
'... began to understand...'

## Vv-promoting contexts in Marathi? fear-clauses

1. golā ye-nār nāhi nā yāči kālji vāt.l.l.i ball come-Fut Neg NQM this.Gen worry felt
'I worried the cannonball might come my way'
(anandghan.blogspot.com)
2. uddeš vi.phal ho-il hi bhiti hoti goal unsuccessful be-Fut this fear was '(They) were afraid they'd be unsuccessful.'
(mymahabharat.blogspot.com)

## origins of Vx's

Speculative topic
More than one kind of origin is possible

- Independent, internally motivated
- Interstratal: Andean Spanish
- Stimulus diffusion
- Grammatical capture: Southern Rajasthan

Biclausal origin? => pair verbs? => Vv's?
meri i.boilim wara pinis
'The.woman boiled the.water "finish"!'

## evidence for biclausal origin?

(1) sāhaṇu bhaggau laggu umaggehim army ran.Msg began.Msg bad.roads.Ins
'The army began to run on bad roads.'
(Svayambhūdeva's paumačariu 21.7.8)
(2) so jāu jji тии
he WENT Prt died
'He died.' (paumačariu 36.5.9)
[examples as cited in V. Bubenik 1998:113]

## functional evolution of Vx's

1. Actionsartal $\Rightarrow$ completive $\Rightarrow$ aspectual
2. De re $\Rightarrow$ attitudinal / de dictu?
(a) koi ši-te šimač-čat-ta-no desu love do-Ger PUT.1-PUT.2-Pst-Nmnlzr is
'I fell in love (to my regret).'
(b) dekho to kaun $\bar{a} y \bar{a} h a i \quad \bar{a} j$ apne yahãa $\tilde{a}$ see then who come has today our place 'Just see who has come to our place today.'
(c) dekho subah-subah kaun $\bar{a}$ gayā hai dimā̀g khā-ne see morning-2 who come GONE has brain eat-Inf 'Who [the hell] has come to bother me first thing?'

## Are functions of Vx's hierarchizable?

1. Actionsartal $\Rightarrow$ completive $\Rightarrow$ aspectual
2. De re $\Rightarrow$ attitudinal / de dictu?
3. Disposal sense $>$ anteriority $>$ perfective $>$ supposition?
4. rāt-ko yahãã pān̄̄ pī-ne ātā.hai, night-at here water drink-Inf comes kabhī.kabhī dopahar-mẽ bhī $\bar{a}$ jātā.hai sometimes afternoon-in too come GOES
'At night (the leopard) comes here to drink. Sometimes he comes in the afternoon, too.' [from Premchand (1936) godān]
[This sequence was noted and discussed in Nespital (1981).]

## The Vv challenge!

On the basis of the semantic and pragmatic properties of the Vv in Hindi-Urdu as described here [and as will emerge in the future] the subject should be able to look at an English language text and decide which points in the text require a Vv , which points exclude a $\mathrm{Vv}_{\mathrm{v}}$ and which points allow either a Vv or a corresponding V .

The subject should be able to pass this test without knowledge of Hindi-Urdu [or similarly Vv-rich language] and without relying on intuition.

The subject should be able to justify each choice of Vv or V [or either one as an option] by referring to a set of explicitly described semantic and pragmatic features.

At that point we may claim to have solved the "V-V mystery".

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## Appendix 1: Vv analogs

reversals: zamīn-par de pattk $\bar{a} \Leftrightarrow$ paṭak diya ground-on GIVE flung $\Leftrightarrow$ fling GAVE '...dashed it to the ground.' (Hindi)
3-part CVs: pūrī.tarah toṛ-kar rakh diyā pūrī.tarah toṛ diyā completely break-Ger PUT GAVE
'...broke (them) completely.' (Hindi)
natsu-mo owat-te -šimač-čat-ta-ši summer-too finish-Ger-PUT'-PUT"-Pst-?
'Too damn bad summer's over and done!'

## more Vv analogs: pair verbs

1. mi ne-ga?-ru ne-la?-ru I 1sg-eat-Pst 1sg-STRIKE-Pst 'I ate it up.'
(Gorum, S. Munda)
2. hullī kask-as hinās-as
horse died-Nsg WENT-Nsg
(Brahui)
'The horse died.'
3. $p \bar{e} g-\varepsilon c ̌ c ̌ h \varepsilon_{0} \quad+\quad a$-bir- $\varepsilon c ̌ c ̌ h \varepsilon$
go-2duImp.1sgBen + Aug-GIVE-2duImp.1sgBen
'You (two) go for me!'
(Limbu)

## Vv analogs: directional adverbs

(1) mhe rūp dhārạ̣ karõ par-u we form(Nsg) assume do-1pl AWAY-Nsg 'We will assume (our true) form.' (Bhitrodi)
(2) hāthi mиo par-o $\Leftrightarrow$ hāthi ni тио elephant died AWAY-Msg elephant Neg died 'The elephant died / didn't die.' (Bhitrodi)

## CV analogs in VO languages: Russian

(1) а здесь взяла да и началась осень a zdes' vzjala da i načalas' osen' and here TOOK and and began autumn 'And here without warning autumn began.'
(2) а вдруг, возмёшь, да и вспомнишь... a vdrug vozmjoš' da i vspomniš' and suddenly TAKE.2sg and and recall.2sg 'And suddenly you'll remember...'

## CV analogs in VO languages: English

(1) Then I went and dropped it a couple of days later on the tiled bathroom floor - ouch.
(2) What did you go and do that for?
(3) If you are not giving away free information on your web site then a huge proportion of your business is just upping and leaving.
(4) Big Pig, she took and built herself a house out of brush.
(5-7) went \& died, up(ped) \& died, took \& died


## Appendix 2: Comparable functions in divergent forms

Case study: Perfectivity in Russian, Hindi-Urdu \& Marathi

## convergent function in divergent form?

1. položil pustýe stakány na-stól put ${ }^{\mathbf{P}}$ empty glasses on-table 'He set the empty glasses on the table.'
2. xāl̄̄ gilās mez-par rakh diye empty glass table-on put GAVE
'He set the empty glasses on the table.'

## perfective aspect: forms in Russian

Non-perfective $\Leftrightarrow$ Perfective

- Prefixing: déla.t' $\Leftrightarrow$ s.déla.t' 'to do'

$$
\text { gugl.irová.t' } \Leftrightarrow \text { po.gugl.irová.t'to google' }
$$

- Suffixing: pá.da.t' $\Leftrightarrow$ pás. $t^{\prime}$ 'to fall'
osta.vá.t'.s'a $\Leftrightarrow$ ostá.t'.s'a 'to stay' poni.m.á. $t^{\prime} \Leftrightarrow$ poni.á. $t^{\prime}$ 'to understand ${ }^{\text {‘ }}$
- Suppletion: klás. $t^{\prime} \Leftrightarrow$ poloz̆ŭít $t^{\prime}$ 'to put' loví. $t^{\prime} \Leftrightarrow$ pojmá. $t^{\prime}$ 'to catch' na.xodí.t' $\Leftrightarrow$ na.j.tí 'to find'


## ratios of perfectives / Vv's to totals

ona upála na zemljú / pádala naz. $\quad 43 / 103=42 \%$ vo gir gā̄ / vo girī
'...she fell (on the ground)...'
oní pojmáli ego / oní lovíli ego use pakar liyā / use pakarāa '... (they) caught him...'
položil knígu I klál knígu rakh dī / rakh lī // rakhī
$147 / 218=67 \%$ $164 / 280=58 \%$ '...placed (the book) ...'
characteristic contrast: conative vs completive

> 1. dólgo lovíli i na-konéts pojmàli long.time caught ${ }^{\mathbf{N P}}$ and at-end caught ${ }^{\mathbf{P}}$
'...chased (us) a long time \& at last caught (us).' (https://forum.dpni.org/forum)
2. gdé.to naxodíl no ne našól somewhere found ${ }^{\mathbf{N P}}$ but Neg found ${ }^{\mathbf{P}}$ I was looking for it somewhere but didn't find it.'
(forum.ru-board.com)

## characteristic limits: phasal verbs

1. dáli pádat' (10?) gave fall. $\mathrm{Inf}{ }^{\mathrm{NP}}$
They let (x) fall.'
2. náčali pádat' $(100+)$ 4. náčali upást' ( 0 ) began fall.Inf ${ }^{\mathrm{NP}}$
3. dáli upást' ${ }^{(100+)}$ gave fall.Inf ${ }^{P}$
'They began to fall.'

## characteristic limits on Vx: phasal verbs

dolžný posylát' (100+) dolžný poslát' (100+) should send.Inf ${ }^{\mathrm{NP}}$
'They should send (x).'
perestáli posylát' (100+) perestáli poslát' (1) stopped send.Inf ${ }^{\mathrm{NP}}$ stopped send. $\mathrm{Inf}^{\mathrm{P}}$
'They stopped sending (x).'

## perfective-promoting contexts: fear-clauses

1. boj-ú.s' kak.by oná s márkom ne sputá.la.s' fear-1sg lest she with Mark Neg entangle ${ }^{P}$ 'I'm afraid she might get entangled with M.'
2. boj.ú.s' kak.by moj múž ne postradál fear-1sg lest my husband Neg suffer ${ }^{P}$ 'I'm afraid my husband might suffer...'
(www.perfectlady.ru/article-16776.html)

## perfective-promoting contexts: fear-clauses

1. boj.ú.s' kak.by podrúga na negó fear lest girl.friend on him
'...I am afraid that (my) girl friend might ...
zagljádyvat'.sja ne stála
be.unable.to.keep.eyes.off ${ }^{\mathrm{NP}} \mathrm{Neg}$ start $^{\mathrm{P}}$
... be unable to keep her eyes off him.'
(www.terrawoman.com)
perfective-promoting contexts: fear-clauses

$$
\begin{aligned}
& \text { 1. ... kto-nibúd' ne uvídel ... } \\
& \text { 2. ... kto-nibúd' ne uvidál ... } \\
& \text { 3. ... kto-nibúd' ne vídel ... } \\
& \quad \text { someone Neg saw P/NP/NP } \\
& \text { '...no-one / caught sight of // saw /...' } \\
& \text { 4. ... kak.by kto-nibúd' ne uvídel ... } \\
& \text { 5. ... kak.by kto-nibúd' ne uvidál ... } \\
& \text { 6. ... kak.by kto-nibúd' ne vídel ... } \\
& \text { '...lest someone / catch sight of // see / ...' }
\end{aligned}
$$

perfective-promoting contexts: fear-clauses
1.... kō̄ dekh na
l.e ...
(21)
2...kō̄ na dekh.e...
(3)
anyone see Neg see TAKE
'...no-one may / catch sight of // see /...'
3. ... kahĩĩ kō̄ dekh na le ...
4. ... kahĩi kō̄ na dekh.e ...
' ...lest someone / catch sight of // see / ...'

## Vx-promoting contexts in Russian? fear-clauses

1. boj-ú.s' kak.by oná s márkom ne s.putá.la.s' fear-1sg lest she with Mark Neg entangle ${ }^{\mathbf{P}}$ T'm afraid she might get tangled up with M.'
2. ḍar lagtā.hai kahĩ̃ ulajh na jāẽ dhāge fear sticks lest tangle Neg GO threads T'm afraid the threads might get tangled up.'
(birenbhatia.blogspot.com/2008/06/blog-post.html)

## exceptions to the CV in fear-clauses

1. ḍar hai ki kahñ̃ ye na kahā jāe ki ...
fear is that lest this Neg said Pass.Sbjnctv that 'I'm afraid people might say that...' (stative) (http://www.bhaskar.com/2007/08/13/kiran_bedi.html)
2. ̣̣ar hai ki kahĩl vo na māŋ-ne lage... fear is that lest he Neg ask-Inf begin 'I'm afraid he might start demanding...' (simplicium tantum) (//in.jagran.yahoo.com/sakhi)

## exceptions to the perfective in fear-clauses

\author{

1. boj-ú.s' kak.by mné ne býlo xúže fear-1sg lest me.Dat Neg would.be ${ }^{\mathrm{NP}}$ worse
} 'I'm afraid it might be worse for me.' (stative) (www.woman.ru/health)
2. oná strašíla.s' kak.by ja ë̈ ne ubivál she feared lest I her Neg kill ${ }^{\mathbf{N P}}$ 'She was afraid that I was going to kill her.' (anetko.info/voprowaet_storogevogo_mastera_soglasen.htm)

## Appendix 3: Geographical distribution

In Masica's Indo-Turanian Linguistic Area

1. South Asia:
a. Indo-Aryan (but not in E. Shina or Sanskrit)
b. Dravidian
c. Tibeto-Burman: Kiranti, Newar, Karen...
d. Indian Austro-Asiatic (but not in Khasi?)
e. Absent in Burushaski
f. No information: Nihali, Kusunda, Car, Shom Pen, Vedda

## Geographical distribution

2. Central Asia:
a. Altaic: all? (marginal in Turkish)
b. Iranian
i. In Baluchi, Tashkandi Tajik
ii. Not in Pashto or Dari
iii. Reversed pair verbs in Persian c. Tibetan (marginal in Lhasa), Balti

## Geographical distribution

3. Northeast Asia:
a. Mongolian)
b. Korean (and Tungusic?)
c. Japanese
d. Ainu: neno i-ki wa en-kore hani! thus Indef.Obj-do and 1sgObj-GIVE Emph 'Please do it like that for me!'
e. Absent in Yukaghir (Maslova 2003); Udihe ...
f. No info? Chukchi, Itelmen, Nivkh, Manchu...

## Geographical distribution

4. West Asia:
a: Northeast Caucasian: Avar
č'a sun.a / sun an.a
fire went.out / go.out WENT 'The fire went out.'
b: Kartvelian: No Vv's
c: Semitic: No Vs; Cushitic: No Vv's
d: Anatolian Turkish: Lost most of its Vv's

## Geographical distribution

4. Outside Eurasia:
a. Andes: Quichua and local Spanish
huañu.či-špa šita-šun
(Quichua)
kill-Ger THROW-1plFut
bota-remos mat-ándo-te (Spanish)
THROW-1plFut kill-Ger-you
'We will kill you.'
b. NE Africa: Somali, Oromo: No CVs. But...
í haattáa kunt- í wott-iisi (Wolaitta)
he water fill-CP PUT.DOWN-3MsgPst
'He drew some water (in case pipe later closed).'

## Australian Vv's?

(1) gabarn-na wek-ga ga-ra-n
(Wagiman) quickly-Asp swallow-Asp 3sg-THROW-Pres 'He swallows it quickly.' Wilson 1999:46
(2) bewh-ma nga-bu-ni boran
(Wagiman) cross-Asp 1sg-HIT-Pst river
'I crossed the river.' Wilson 1999:64
(3) wer-wun-any-ta-m
(Kamu)
tease-3AugObj-2MinSbj-SPEAR-PP
'You two teased them.' Harvey 2003:160

## Australian Vv's?

Comparable with S. Asian Vv's? Wilson 1999:62
'coverb' ('particle') + verb $=$ main verb + vector $=\mathrm{Vv}$ ?

Highest Vv \% in S. Asia is @ $25 \%$.
In N. Australia ratio seems to be much higher.
A glimpse of the future?
(barring the Singularity)

## Vv's and fear-clauses in Kazakh

1. Балқаш көлі құрғап кетпей ме деп қорқады balqaš keeli qŭrġa-p ket-pej me de.p qorqa-dl
Balkhash Lake dry-Ger GO-Neg QM Quot fear-3
'(They) are afraid that Lake Balkhash will dry up.'
2. Қазақстан қазақтанып кетеді деп қорқады qazaqstan qazaq-tanı-p ket-edi de.p qorqa-dı Kazakhstan kazakh-ify-Ger GO-Fut Quot fear-3 'Kazakhstan is afraid it will go Kazakh.'
