# 24.956 Topics in the Syntax of the Modern Indo-Aryan Languages March 21, 2003 Causativization

## 1 Ways of Causative Formation

Causative are formed synthetically in most Indo-Aryan languages.

- (1) (Nepali, from Wallace (1979))
  - a. Transitive:

mã kān gar-chu

I work do-Prs.1Sg

'I do the work.'

b. Causative of Transitive:

mã kām gar-āũ-chu

I work do-Caus-Prs.1Sg

'I have the work done.'

Some Indo-Aryan languages also have periphrastic causatives.

(2) a. (Nepali, from Wallace (1979))

mã kām gar-na lag-āũ-chu

I work do-Inf LAG-Caus-Prs.1Sg

'I have the work done.'

b. (Gujarati, from Hook (1999))

mE tem-ne aa kaam kar-taa kar-i didhaa I.Erg them-Dat this work do-Impfv do-NF GIVE-Pfv

'I made them do this work.'

## 1.1 Transitivity Alternations

#### 1.1.1 The NULL Class

An initial class is the *ablauting* or *vowel-change* type. In this class of verbs, there is no overt causative affix. The phonological form of the intransitive is derived from the phonological form of the transitive via shortening.

- (3) NULL-class
  - a. Jaayzaad bãṭ rahii hai. property divide PROG-FEM be-PRES
    - 'The property is dividing.'
  - b. Ram-ne jaayzad bãāṭ dii.
     Ram-ERG property divide GIVE-PERF
     'Ram divided the property.'

I.e. intransitive bãt, transitive bããt.

#### 1.1.2 The AA Class

A second class involves an overt affix, -aa. In this class, an intransitive with no overt affix is paired with a transitive showing the suffix -aa. The presence of -aa triggers phonological shortening processes that readjust the intransitive stem form.

- (4) AA-Class
  - a. Makan jal raha hai. house.M burn PROG.M be.Prs

'The house is burning.'

b. Dakaitõ-ne makaan jalaa diyaa. bandits-ERG house.M burn GIVE-PERF.M

'Bandits burned the house.'

#### 1.1.3 Transitivity via the be/do alternation

- (5) Adjective + Light Verb
  - a. kamraa saaf thaa room.MSg clean be.Pst.MSg

'The room was clean.'

b. kamraa **saaf** <u>ho</u> rahaa hai room.MSg clean be Prog.MSg be.Prs.MSg

'The room is becoming clean.'

c. Lalji kamraa **saaf** <u>kar</u> rahaa hai Lalji room clean do Prog.MSg be.Msg 'Lalji is cleaning the room.'

With some nouns more than one option is available. Thus with the noun *prayog* 'use', both (6) and (7) are possible.

- (6) Noun + Light Verb
  - a. Hiroshima-mẽ aṇu-bam  $\begin{array}{ccc} \textbf{prayog} & \underline{\textbf{huaa}} \\ \textbf{Hiroshima-in} & \textbf{atom-bomb} & \textbf{use}_N \end{array} \quad \textbf{be-Pfv} \; \textbf{be.Pst} \\ \end{array}$ 
    - 'An atomic bomb was used in Hiroshima.'
  - b. Amrikaa-ne Hiroshima-mẽ aṇu-bam **prayog** kiyaa thaa America-Erg Hiroshima-in atom-bomb use $_N$   $\overline{\text{do-Pfv}}$  be.Pst

'The United States used an atomic bomb in Hiroshima.'

These options differ in how the case on the subject and the object is licensed. In the examples in (6), the case of the relevant argument is licensed by a functional head such as finite  $T^0$  (in 6a) and transitive  $v^0$  (in 6b). (7), however, involves case-licensing of the relevant argument by the nominal.

- (7) Noun Phrase + Light Verb
  - a. Hiroshima-mē [aṇu-bam-kaa prayog] <u>huaa</u> thaa Hiroshima-in atom-bomb-Gen use<sub>N</sub> be-Pfv be.Pst 'An atomic bomb was used in Hiroshima.'
     (Lit. The use of an atom bomb happened in Hiroshima.)
  - b. Amrikaa-ne Hiroshima-më [aṇu-bam-kaa prayog] kiyaa thaa America-Erg Hiroshima-in atom-bomb-Gen  $use_N$  do-Pfv be.Pst 'The United States used an atomic bomb in Hiroshima.'

(Lit. The United States did the use of an atom bomb in Hiroshima.)

Not all nouns permit both the options in (6) and (7). For example, *prashanshaa* 'praise' seems to only allow the version in (7).

(8) a. NP + Light Verb: adjective

Hiroshima-më [aṇu-bam-kaa pahlaa **prayog**] <u>huaa</u> thaa Hiroshima-in atom-bomb-Gen first use<sub>N</sub> be-Pfv be.Pst

'An atomic bomb was first used in Hiroshima.' (Lit. The first use of an atomic bomb happened in Hiroshima.)

b. N + Light Verb: adverb, \*adjective

Hiroshima-më anu-bam [pahlii baar]/\*pahlaa **prayog** <u>huaa</u> thaa Hiroshima-in atom-bomb first.f time.f/first use<sub>N</sub> be-Pfv be.Pst

'An atomic bomb was used in Hiroshima for the first time.'

• the light verbs as articulated versions of the structures seen with alternating verbs.

#### 1.2 Indirect Causatives

In addition to these two types of derivation, which involve a lower or so-called 'lexical' causativization, there are causatives with the affix *-vaa*, which have an *indirect causative* interpretation.

(9) zamiindaar-ne (dakaitõ-se) makaan jalvaa diyaa. landlord-Erg bandits-Instr house.M burn GIVE-PERF.M 'The landlord had the house burned (by the dacoits).'

Question: are indirect causatives part of the general system of causativization seen so far, or should they be given a separate treatment?

## 1.2.1 Marking of Indirect Causation

Many Indo-Aryan languages do not have a distinct Indirect Causative marker. In these languages, Indirect Causatives are marked by a combination of two direct causative markers (e.g. Kashmiri, Awadhi, Bhojpuri, Maithili, Gujarati etc.) (cf. Masica (1991):320-321).

- (10) (Kashmiri, from Hook and Koul (1984a):97)
  - a. ra:m chu hisa:b **par-a:n**Ram is math study-Impfv
    'Ram is studying math.'
  - b. bI chusan ra:mI hisa:b par-Ina:v-a:n
    I am-I-him Ram math teach-Impfv
    'I am teaching Ram math.'
  - c. bI chusan ma:sṭaras-athi ra:mI hisa:b par-Ina:v-Ina:v-a:n I am-I-him teacher.Dat-through Ram math teach-Caus-Caus-Impfv 'I am having Ram taught math by a teacher.'

According to Masica, the distinctive markers of Indirect Causation have historically emerged from a similar combination of two markers of direct causation that underwent phonological reduction.

#### 1.2.2 Marking of the Intermediate Agent

In many Indo-Aryan languages, the intermediate agent in an indirect causative appears with instrumental case.

- (11) (Nepali, from Wallace (1979))
  - a. Transitive

shyām-le dhoka khol-a Shyam-Erg door open-Pst.3Sg

'Shyam opened the door.'

b. Indirect Causative

rām-le shyām-baṭa dhoka khol-ā-yo Ram-Erg Shyam-by door open-Caus-Pst.3Sg

'Ram made Shyam open the door.'

In Kashmiri, however, the intermediate agent can appear in either the instrumental or the dative (cf. discussion of Chichewa in Alsina (1992)).

- (12) (Kashmiri, from Hook and Koul (1984a):102)
  - a. Instrumental

su čhu **no:kras-athi** kE:m kar-Ina:v-a:n he is servant.Dat-by work do-Caus-Impfv

'He is having the work done by the servant.'

b. Dative

su čhu beni kE:m kar-Ina:v-a:n tI bE:yis nI he is sister. Dat work do-Caus-Impfv and brother. Dat Neg

'He is making sister do the work and not brother.'

Wali (1980)/Wali (1986), Pandharipande (1981) among others note that multiple intermediate agents may appear in an indirect causative.

(13) a. (Hindi, from Pandharipande (1981):198)

rām-ne šyām-se mohan-(ke)-dwārā kām kar-vā-yaa Ram-Erg Shyam-Instr Mohan-by work do-Caus2-Pfv

'Ram made Mohan get the work done by Shyam.'

b. (Marathi, from Pandharipande (1981):200)

mī madh<sup>-</sup>-kaḍūn mohan-(čyā)-dwārā kām kar-av-le I Madhu-by Mohan-Gen-by work do-Caus-Pst

'I made Mohan get the work done by Mohan.'

- These two intermediate agents are marked by distinct postpositions. One indicates direct involvement of the intermediate agent and the other indirect involvement.
- Sometimes claimed that an unbounded number of such intermediate agents may appear (cf. Wali (1980), Saksena (1980)). However, anything more than two are hard to process.

With certain verbs in certain languages (e.g. Marathi, Kashmiri etc.), we find examples of two causative morphemes corresponding with two intermediate agents.

(14) (Kashmiri, from Hook and Koul (1984a):104)

ra:mI chu **kar-Ina:v-Ina:v-an** mohnIni-zEriyi šha:mas-(athi) s'aṭha: kE:m Ram is do-Caus-Caus-Impfv Mohan-Gen-through Shyam.Dat-by much work

'Ram is having Mohan make Shyam work a lot.'

Such cases have led author's (cf. Wali (1980)) to propose a one-to-one correlation between causative morphemes and the number of intermediate agents. Hook and Koul (1984a) note that such a correlation is problematic.

(15) (Kashmiri, from Hook and Koul (1984a):104)

ra:mI chu **kar-Ina:v-an** mohnIni-zEriyi šha:mas-(athi) s'aṭha: kE:m Ram is do-Caus-Caus-Impfv Mohan-Gen-through Shyam.Dat-by much work

'Ram is having Mohan make Shyam work a lot.'

#### 1.3 Issues to Address

- 1. **Co-occurrence of Causative Exponents.** The *-vaa* causative and the *-aa* causative never co-occur, even in derivations involving transitives that show *-aa*:
  - (16) a.  $BV_{intr}$

Ramesh bach ga-yaa Ramesh save GO-Pfv

'Ramesh got saved.'

b. A B V-aa

Ram-ne Ramesh-ko bach-aa-yaa Ram-Erg Ramesh-Acc save-AA-Pfv

'Ram saved Ramesh.'

c. \*A B V-aa-vaa

\*Ram-ne Mahesh-se Ramesh-ko bach-aa-vaa-yaa Ram-Erg Mahesh-by Ramesh-Acc save-AA-VAA-Pfv

#### d. A B V-vaa

Ram-ne Mahesh-se Ramesh-ko bach-vaa-yaa Ram-Erg Mahesh-by Ramesh-Acc save-VAA-Pfv 'Ram had Ramesh saved by Mahesh.'

#### 2. The Distribution of -aa.

- (17) Synonymous -aa and -vaa causatives:
  - Ram-ne Bill-se kaam kar-aa/vaa-yaa
     Ram-ERG Bill-INST work do-CAUS2/CAUS2-PERF
     'Ram had the work done by Bill.'
  - b. Ram-ne Bill-se Sita-ko kitaab dil-aa/vaa-yii Ram-ERG Bill-INST Sita-DAT book give-CAUS2/CAUS2-PERF.FEM 'Ram had the book given to Sita by Bill.'

All of the verbs that show this behavior are verbs that do not show -aa in the transitive form. However, the verbs that have synonymous -aa and -vaa causatives are a listed subset of the verbs that have no -aa in the transitive. This requires a certain type of information to be listed with -aa, in a way which has implications for the manner in which morphological spell out occurs.

3. The structures of the various causatives.

## 2 A Traditional Picture

- This approach is stated in directional terms. An operation applies to a basic form to yield a derived form.
- · A different use of the term 'causative'
- Roughly the picture in Masica (1976), Wallace (1979), Hook and Koul (1984a) etc.

#### **2.1** Basic Transitive $\rightarrow$ Antitransitive

(18) a. 'Basic' Transitive

Sikandar skuul ke-baahar ṭaufiyã: **bã:ṭ** rahaa hai Sikandar school Gen.Obl-outside toffees distribute Prog.MSg be.Prs.Sg

'Sikandar is distributing toffees outside the school.'

b. 'Derived' Intransitive

skuul ke-baahar țaufiyã: **bãṭ** rahii hĒ school Gen.Obl-outside toffees.f distribute $_{intr}$  Prog.f be.Prs.Pl

'Toffees are distributing outside the school.'

## 2.2 Basic Intransitive → Derived Transitive

(19) a. 'Basic' Intransitive

jangal **jal** rahaa hai forest burn Prog be.Prs.Sg

'The forest is burning.'

b. 'Derived' Transitive

sipa:hi: jangal **jal-a:** rahe hĒ: soldiers.M forest burn-Caus Prog.MPl be.Prs.Pl

'The soldiers are burning the jungle.'

## 2.3 Ingestive Transitive $\rightarrow$ Derived Ditransitive

The ingestive class: verbs of physical or sensory ingestion e.g. parh 'read/study', siikh 'learn', sun 'hear', dekh 'see', khaa 'eat', pii 'drink', chakh 'taste' etc.

(20) a. 'Basic' Ingestive Transitive

Binu angrezii **siikh** rahaa hai Binu.M English learn Prog.MSg be.Prs.Sg

'Binu is learning English.'

b. 'Derived' Ditransitive

Mona Binu-ko angrezii **sikh-aa** rahii hai Mona.f Binu-Dat English learn-Caus Prog.f be.Prs.Sg

'Mona is teaching Binu English.'

#### 2.4 (Di)Transitive → Derived Causative

- (21) 'Basic' Transitive → Causative
  - a. 'Basic' Transitive

Malini ghar-kaa kaam **kar** rahii hai Malini.f home-Gen work do Prog.f be.Prs.Sg

'Malini is doing housework.'

b. 'Derived' Causative

Malini naukraani-se ghar-kaa kaam **kar-vaa** rahii hai Malini.f servant.f-Instr house-Gen work do-Caus2 Prog.f be.Prs

'Mailini is getting the housework done by the servant.'

- (22) 'Derived' Transitive  $\rightarrow$  Causative
  - a. 'Derived' Transitive (= causative of intransitive)
     sipa:hi: jangal jal-a: rahe hĒ:
     soldiers.M forest burn-Caus Prog.MPl be.Prs.Pl
     'The soldiers are burning the jungle.'
  - b. Causative

ra:ja: sipahiyõ-se jangal **jal-vaa** rahaa hai king.m soldiers.Obl-Instr forest burn-Caus2 Prog.MSg be.Prs.Sg 'The king is getting the forest burned by the soldiers.'

- (23) 'Basic' Ditransitive → Causative
  - a. 'Basic' Ditransitive

Nazia Ramona-ko tohfaa **de** rahii hai Nazia.f Ramona-Dat gift.m give Prog.f be.Prs.Sg

'Nazia is giving a gift to Ramona.'

b. 'Derived' Causative

Zoheb Nazia-se Ramona-ko tohfaa **dil-vaa** rahaa hai Zoheb.m Nazia-Instr Ramona-Dat gift give-Caus2 Prog.MSg be.Prs.Sg 'Zoheb is getting Ramona be given a gift by Nazia.'

- (24) 'Derived' Ditransitive → Causative
  - a. 'Derived' Ditransitive (= *causative* of ingestive transitive)

Nazia Ramona-ko khiir **khil-aa** rahii hai Nazia.f Ramona-Dat rice-pudding eat-Caus Prog.f be.Prs.Sg

'Nazia is feeding Ramona the rice pudding.'

b. 'Derived' Causative

Zoheb Nazia-se Ramona-ko khiir khil-vaa rahaa Zoheb.m Nazia-Instr Ramona-Dat rice-pudding eat-Caus2 Prog.MSg hai be.Prs.Sg

Gloss

'Zoheb is getting Ramona be fed the rice pudding by Nazia.'

# 3 Causatives and Transitivity Alternations

#### 3.1 Transitives with Ablaut

(25) Vowel Length Differences a-l

Intransitive Transitive

munisitive	Hunsture	aloss
bãṭ-naa	bããṭ-naa	'be divided/divide'
bandh-naa	baandh-naa	'connect'
bigar-naa	bigaar-naa	'spoil'
bikhar-naa	bikher-naa (bikhr-aa-naa)	'scatter'
chhap-naa	chhaap-naa	'be printed/print'
chhid-naa	chhed-naa	'be pierced/pierce'
chhil-naa	chhiil-naa	'be peeled/peel'
chhin-naa	chhĩin-naa	'be sntached/snatch'
ḍhal-naa	ḍhaal-naa	'shape/sculpt'
dhul-naa	dho-naa	'be washed/wash'
gir-naa	ger-naa (gir-aa-naa)	'fall/cause to fall'
ghir-naa	gher-naa	'be surrounded/surrounded'
ghul-naa	ghol-naa	'dissolve'
juṛ-naa	joṛ-naa	'be added/add'
kaṭ-naa	kaaṭ-naa	'be cut/cut'
khĩch-naa	khīīch-naa	'be pulled/pull'
khud-naa	khod-naa	'be dug/dug'
khul-naa	khol-naa	ʻopen'
kuṭ-naa	kuuṭ-naa	'be ground/grind'
lad-naa	laad-naa	'be loaded/load'
luț-naa	luuṭ-naa	'be robbed/rob'

## (26) Vowel Length Differences m-u

Intransitive	Transitive	Gloss
mãj-naa	mããj-naa	'be scored/scour'
mar-naa	maar-naa	'die/kill'
muṛ-naa	moṛ-naa	'turn'
nichur-naa	nichor-naa	'be squeezed/squeeze'
nikal-naa	nikaal-naa	'come out/bring out'
pal-naa	paal-naa	'be brought up/bring up'
pighal-naa	pighaal-naa (pighl-aa-naa)	'melt'
pis-naa	piis-naa	'be pulverized/pulverize
pit-naa	piiṭ-naa	'be hit/hit'
ruk-naa	rok-naa	'stop'
sĩch-naa	sĩich-naa	'be irrigated/irrigate'
sĩk-naa	sẽk-naa	'be heated/heat'
sil-naa	sii-naa (sil-naa)	'be sewn/sew'
sudhar-naa	sudhaar-naa	'improve'
tan-naa	taan-naa	'be taught/tighten'
tul-naa	tol-naa	'be weighed/weigh'
ṭal-naa	ṭaal-naa	'be delayed/delay'
taN-naa	taaN-naa	'hang'
ubal-naa	ubaal-naa	'boil'
ukhaṛ-naa	ukhaaṛ-naa	'uproot'
ujar-naa	ujaar-naa	'destroy'
utar-naa	utaar-naa	'get down/bring down'

The intransitives formed by vowel alternation are all unaccusatives. They differ from the corresponding transitive in lacking syntactically represented agentivity.

#### (27) a. transitive:

kampani per kaat rahii hai company.f tree cut Prog.f be.Prs

'The company is cutting trees.'

#### b. intransitive:

per kat rahe hĒ trees.M cut Prog.MPl be.Prs.Pl

'Trees are being cut.' (lit. Trees are cutting<sub>intr</sub>.)

In additional to lacking a syntactically projected external argument, the intransitive also lacks any agentivity.

While the passive does not syntactically project an external argument, it does involve agentivity.

#### (28) a. Transitive:

Amit paanii ubaal rahaa thaa Amit.M water.M boil Prog.M be.Pst.M

'Amit was boiling the water.'

#### b. Passive:

paanii ubaal-aa jaa rahaa thaa water boil-Pfv PASS Prog.M be.Pst.M

'The water was being boiled.'

#### c. Intransitive:

paanii ubal rahaa thaa water boil Prog.M be.Pst.M

'The water was boiling.'

For the passive (28b) to be judged true, someone has to be boiling the water. There is no such requirement in (28c).

This semantic absence of agentivity in the intransitive is also supported by a variety of other syntactic diagnostics.

 $\bullet$  Licensing of -dwaaraa 'by'-phrases: passives allow for dwaaraa 'by' phrases, intransitives do not.  $^1$ 

## (29) a. Passive:

paanii (Ram-dwaaraa) ubaal-aa jaa rahaa thaa water Ram-by boil-Pfv PASS Prog.M be.Pst.M

'The water was being boiled by Ram.'

#### b. Intransitive:

paanii (\*Ram-dwaaraa) ubal rahaa thaa water boil Prog.M be.Pst.M

"The water was boiling by Ram."

- Hindi allows for impersonal passives of unergatives but not unaccusatives.
- (30) a. Passive of an Unergative:

calo, dauṛ-aa jaaye come run-Pfv PASS-Sbjv

'Come, let it be run i.e. let us run.'

b. \*Passive of an Unaccusative:

\*calo, kaṭ-aa jaaye come cut<sub>intr</sub>-Pfv PASS-Pfv

<sup>&</sup>lt;sup>1</sup>There is also a related syntactic difference between passives and intransitives. The subjects of Hindi passives allow for retention of accusative case. This possibility is unavailable with intransitives.

- Certain adverbial modifiers that target the agent are possible in transitives and their passives but not with intransitives.
- (31) a. Passive:

haNste haNste per kaat-e jaa rahe hẽ laughing laughing trees cut-Pfv.Pl PASS Prog.Pl be.Prs.Pl

'The trees are being cut by someone who is laughing.'

b. Intransitive:

\*khaate khaate per kat rahe hĒ eating eating trees cut Prog.Pl be.Prs.Pl

(32) a. Passive:

khaanaa khaa-kar per kaat-aa jaa rahaa hai food eat-having tree cut-Pfv PASS Prog be.Prs

'The tree is being by cut by someone, that someone having eaten food.'

b. Intransitive:

\*khaanaa khaa-kar per kat rahaa hai food eat-having tree cut Prog be.Prs

- Both unaccusatives and passives participate in a construction that involves a capacity/inability reading. Typically such constructions seem to require a negative component in their meaning.
- (33) (from Hook (1979), pg. 179)
  - a. Inabilitative Passive:

diidii-ko paudhe itne pasand h $\tilde{E}$  ki us-se ukhaar-e sister-Dat plants so-much like be.Prs.Pl that she-Instr uproot-Pfv.Pl nah $\tilde{I}$ : jaa-te

Neg PASS-Hab.Pl

'My sister likes plants so much that she can't bring herself/can't bear to uproot them.'

b. Inabilitative Intransitive:

diidii itnii kamzor hai ki us-se paudhe nahii ukhaṛ-te sister so-much.f weak be.Prs that she-Instr plants Neg uproot<sub>intr</sub>-Hab.Pl 'My sister is so weak that she can't uproot the plants.'

While inabilitative unaccusatives involve an overt -se-phrase, it can be shown that this is not an agent. Unlike in a passive, the se-phrase in an inabilitative unaccusative does not control the activity. This can be seen in the differences in meaning between (33a) and (33b).

Further evidence in support of this distinction comes from the fact that *se*-phrases in inabilitative passives are able to control agent-oriented adverbial phrases while *se*-phrases in inabilitative unaccusatives are not.

- (34) (based on examples in Balachandran (1973), pg. 29, 30)
  - a. Inabilitative Passive:

mujh-se khaate-khaate khaanaa nahi: banaa-yaa jaa-taa I-Instr while-eating food Neg make-Pfv PASS-Hab

'I am not able to cook food while I am eating.'

b. Inabilitative Intransitive:

\*mujh-se khaate-khaate khaanaa nahĩ: ban-taa I-Instr while-eating food Neg make<sub>intr</sub>-Hab

- (35) (based on examples in Balachandran (1973), pg. 30)
  - a. Inabilitative Passive:

mujh-se [ghar aa-kar] roṭiyā: achchhi: nahī: banaa-yii jaa-tii I-Instr home come-having bread.FPl well not make-Pfv.F PASS-Hab.f 'Having come home, I can't (bring myself to) make bread well.'

b. Inabilitative Intransitive:

\*mujh-se [ghar aa-kar] roṭiyã: achchhi: nahĩ: ban-tii I-Instr home come-having bread.FPl well not  $make_{intr}$ -Hab.f

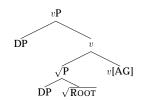
## 3.2 Transitives with -aa

## (36) AA-Class Causatives

Intransitive	Transitive	Gloss
bach-naa	bach-aa-naa	'be saved/save'
bah-naa	bah-aa-naa	'flow/cause to flow'
bahal-naa	bahl-aa-naa	'be entertained/entertain'
baiṭh-naa	biṭh-aa-naa	'sit/seat'
ban-naa	ban-aa-naa * 'be made/make;	
barh-naa	baṛh-aa-naa	'increase/cause to increase'
bhaag-naa	bhag-aa-naa	'run away/cause to run away'
bhiig-naa	bhig-aa-naa (bhig-o-naa)	'become wet/wet'
bichh-naa	bichh-aa-naa	'unroll'
biit-na	bit-aa-naa	'elapse/cause to elapse'
bikhar-naa	bikhr-aa-naa (bikher-naa)	'scatter'
bujh-naa	bujh-aa-naa	'go/put out'
chamak-naa	chamk-aa-naa	'shine'
charh-naa	chaṛh-aa-naa	'climb/cause to climb'
chipak-naa	chipk-aa-naa	'stick'
chÕk-naa	chÕk-aa-naa	'be startled/startle'
chhip-naa	chhip-aa-naa	'hide'
ḍar-naa	ḍar-aa-naa	'fear/scare'
ḍuub-naa	ḍub-aa-naa (ḍub-o-naa)	'drown'
gal-naa	gal-aa-naa	'melt'
gir-naa	gir-aa-naa (ger-naa)	'fall/cause to fall'
hil-naa	hil-aa-naa	'rock'
jaag-naa (jag-naa)	jag-aa-naa	'wake up'
jal-naa	jal-aa-naa	'burn'
jam-naa	jam-aa-naa	'freeze'
jii-naa	jil-aa-naa	'be alive/cause to be alive'
lag-naa	lag-aa-naa	'be planted, attach/plant?'
leṭ-naa	liṭ-aa-naa	'lie/cause to lie, lay'
mil-naa	mil-aa-naa	'meet/introduce'
miṭ-naa	miṭ-aa-naa	'be wiped/wipe'
pahũch-naa	pahũch-aa-naa	'arrive/escort'
pak-naa	pak-aa-naa	'ripen/cause to ripen, cook'
phail-naa	phail-aa-naa	'spread'
pighal-naa	pighl-aa-naa (pighaal-naa)	'melt'
ro-naa	rul-aa-naa	'cry/cause to cry'
saj-naa	saj-aa-naa	'be decorated/decorate'
saṛ-naa	saṛ-aa-naa	'rot'
so-naa	sul-aa-naa	'sleep/put to bed'
sulag-naa	sulg-aa-naa	'be lit, smoulder/light'
sulajh-naa	suljh-aa-naa	'get simplified/simplify'
suukh-naa	sukh-aa-naa	'dry'
ulajh-naa	uljh-aa-naa	'get complicated/complicate'
uṭh-naa	uṭh-aa-naa	'rise/raise'

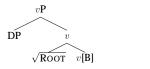
# 4 Some Structures

## (37) Transitive Structure?



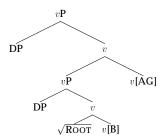
(38) 'Inchoative' Type

(39) Alternative Type





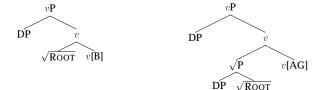
(40) Transitive of an Inchoative



The minimal structures associated with be and do are a simple (predicative) intransitive structure and a simple transitive structure with v[AG], as in (41) and (42) respectively:

#### (41) BE structure

## (42) DO structure



# 5 Causatives of Unergatives and the 'Ingestive' Verbs

## 5.1 Unergatives

A number of verbs that appear with the -aa suffix as transitives seem to be essentially unergatives when intransitive.

#### (43) Putative Unergatives

Intransitive	Transitive	Gloss
chal-naa	chal-aa-naa	'move, walk/cause to move, drive'
dauṛ-naa	dauṛ-aa-naa	'run/cause to run, chase'
ghuum-naa	ghum-aa-naa	'wander/cause to wander?'
hãs-naa	hãs-aa-naa	'laugh/cause to laugh'
hat-naa	hat-aa-naa	'move'
jhuul-naa	jhul-aa-naa	'swing/cause to swing'
kuud-naa	kud-aa-naa	'jump/cause to jump'
naach-naa	nach-aa-naa	'dance'
ur-naa	ur-aa-naa	'fly'

Some tests for unergativity:

1. Unlike unaccusatives, the past participle of an unergative cannot be used as a reduced relative.

#### (44) a. Unergative:

\*hãs-aa (huaa) laṛkaa laugh-Pfv be-Pfv boy

"the laughed boy

#### b. Unaccusative:

kaṭ-e (hue) phal cut<sub>intr</sub>-Pfv.MPl be-Pfv.MPl fruit

'the fruits in the cut-state, the fruits that have been cut'

- 2. Impersonal passives can be formed on unergatives but not on unaccusatives (cf. 30).
- 3. Unergatives pattern with transitives and not unaccusatives with respect to how they enter into the inabilitative construction: both transitives and unergatives can only appear in the inabilitative construction with passive syntax. Unaccusatives appear in the inabilitative with active syntax.

#### (45) Transitive

a. Basic transitive:

Nina-ne dhabbe miṭaa-ye Nina-Erg stains.MPl wipe-Pfv.MPl

'Nina scrubbed away the stains.'

b. Inabilitative 1 (based on active syntax):

\*Nina-se Mona-ne dhabbe nahî: miţaa-ye Nina-Instr Mona-Erg stains.M Neg wipe-Pfv.MPl

c. Inabilitative 2 (based on passive syntax):

Nina-se dhabbe mitaa-ye nahî: gaye Nina-Instr stains wipe-Pfv.Pl Neg PASS-Pfv.MPl

Nina couldn't (bring herself to) wipe away the stains.'

#### (46) Unergative

a. Basic Unergative:

Nina daur rahii hai Nina.f run Prog.f be.Prs.Sg

'Nina is running.'

b. Inabilitative 1 (based on active syntax):

\*Nina-se Mona daur rahii hai Nina-Instr Mona.f run Prog.f be.Prs.Sg

c. Inabilitative 2 (based on passive syntax):

Nina-se dauṛ-aa nahĩ: gayaa Nina-Instr run-Pfv Neg PASS-Pfv

'Nina couldn't run.'

#### (47) Unaccusative

a. Basic Unaccusative:

dhabbe mit rahe h $\tilde{E}$  stains wipe<sub>intr</sub> Prog.MPl be.Prs.MPl

'The stains are getting erased.'

b. Inabilitative 1 (based on active syntax):

Nina-se dhabbe nahî: miṭ-e Nina-Instr stains.M Neg wipe<sub>intr</sub>-Pfv.MPl

'Nina wasn't able to wipe away the stains.'

c. Inabilitative 2 (based on passive syntax):

```
*dhabbō-se miṭ-aa nahī: gayaa
stains-Instr wipe<sub>intr</sub>-Pfv Neg PASS-Pfv
```

'The stains weren't able to (bring themselves to) erase themselves.'

It is, of course, possible to force an agentive interpretation out of many of the intransitives in the lists above. In some cases this is quite straightforward, as, for example, with those verbs that are 'autocausatives' like *move* in English.

Question– Does this type of pattern actually require a recursion on agentive v structure? In most (if not all) of these cases, the interpretation of the transitive does not involve an agentive reading for the causee, suggesting that they are like simple transitives.

(48) a. Unergative

patang/chiṛiyaa uṛ rahii hai kite.f/bird.f fly Prog.f be.Prs.Sg

'The kite/the bird is flying.'

b. Transitive

Anjali patang/\*?chiriyaa uraa rahii hai Anjali.f kite.f/bird.f fly Prof.f be.Prs.Sg

'Anjali is flying a kite/\*a bird.'

Similar observations hold for the other transitives based on unergatives.

## 5.2 Ingesto-Reflexives

Verbs denoting ingestive concepts, either literal or not so literal.<sup>2</sup>

i. a. Ram-ko Sita dikh-ii Ram-Dat Sita see-Pfv.f

'Ram saw Sita (lit. Sita appeared to Ram).'

b. Ram-ne Sita-ko dekh-aa Ram-Erg Sita-Acc see-Pfv

'Ram saw Sita.'

The verb *bhuul* 'forget' which one might expect to be in the class of ingestives patterns with other ingestives in lacking an intransitive counterpart. However, its -aa- causative displays unusual properties.

(49) -aa- Causatives of Ingesto-Reflexive Verbs

Verb	Verb-aa	Gloss
chakh-naa	chakh-aa-naa	'taste/cause to taste'
dekh-naa	dikh(l)-aa-naa	'see/show'
khaa-naa	khil-aa-naa	'eat/feed'
pakar-naa	pakr-aa-naa	'hold, catch/hand, cause to hold'
parh-naa	parh-aa-naa	'read/teach'
pehen-naa	pehn-aa-naa	'wear/clothe'
pii-naa	pil-aa-naa	'drink/cause to drink'
samajh-naa	samjh-aa-naa	'understand/explain'
siikh-naa	sikh-aa-naa	'learn/teach'
sun-naa	sun-aa-naa	'hear/cause to hear, tell'

All these verbs have -vaa- causatives. The -aa- causatives are syntactically and semantically distinct from the -vaa- causatives.

- (50) a. Ram-ne \*Bill-se Sita-ko angrezi sikh-aa-yii Ram-ERG \*Bill-INST Sita-DAT English learn-CAUS-PERF.FEM 'Ram taught Sita English.'
  - b. Ram-ne Bill-se Sita-ko angrezi sikh-vaa-yii
     Ram-ERG Bill-INST Sita-DAT English learn-CAUS2-PERF.FEM
     'Ram had Sita taught English by Bill.'

**Note:** The -ko here is a true Dative marker, and cannot be omitted as can the -ko related to animacy.

The causativized ingestives seem to have the internal syntax of prototypical ditransitives such as *de* 'give'. Like ditransitives, they participate in a process of obligatory object shift.

- (51) Object shift in prototypical ditransitives (from Bhatt and Anagnostopoulou (1996))
  - a. basic word order:

Tina-ne Mina-ko vo kitaab di-i Tina-Erg Mina-Dat that book.f give-Pfv.f

'Tina gave that book to Mina.'

- b. with object shift:
- ii. a. Ram Sita-ko bhuul ga-yaa Ram Sita-Acc forget GO-Pfv

'Ram forgot nonagentive Sitaa.

b. Ram-ne Sita-ko bhul-aa di-yaa Ram-Erg Sita-Acc forget-CAUS? GIVE-Pfv

'Ram forgot<sub>agentive</sub> Sita.' ('Ram put Sita out of his mind.')

Unlike -aa- of ingestives whose valence is one greater than that of the corresponding transitive, bhuul and bhul-aa have the same valence. They only differ with respect to agentivity.

 $<sup>^2</sup>$ No verbs of this type have anticausative forms, as far as we are aware. Some, however, participate in alternations typical of psychological predicates (e.g. dikh/dekh).

'Tina gave that book to Mina.'

- (52) Object shift in causatives of ingesto-reflexives
  - a. basic word order:

Ram-ne Sita-ko vo bhaashaa sikh-aa-yii Ram-Erg Sita-Dat that language learn-CAUS-Pfv.f

'Ram taught Sita that language.'

b. with object shift:

Ram-ne [us bhaasha-ko]; Sita-ko t; sikh-aa-yaa Ram-Erg that.Obl language-Acc Sita-Dat learn-CAUS-Pfv

'Ram taught Sita that language.'

• The class of ingesto-reflexive verbs seems to stay the same across many Indo-Aryan languages (Gujarati (Cardona (1965)), Kashmiri (Hook and Koul (1984a)), Nepali (Wallace (1979))).

## 5.3 Directionality

#### 5.3.1 Phonology

On a phonological level, the evidence points to a difference between the Ablauting and the AA-Classes:

- (53) Phonological Underlying Form:
  - a. Ablauting Class: Transitive form is basic
  - b. AA-Class: Intransitive form is basic'
- (54) Correspondences: AA-class

Intransitive	Transitive	Gloss	Vowels
jaag-naa	jag-aa-naa	'wake up'	aa/a
biit-naa	bit-aa-naa	'elapse/cause to elapse'	ii/i
suukh-naa	sukh-aa-naa	'dry'	uu/u
ro-naa	rul-aa-naa	'cry/cause to cry'	o/u
let-naa	lit-aa-naa	'lie/lay'	e/i

(55) Correspondences: Ablauting Class

Intransitive	Transitive	Gloss	Vowels
mar-naa	maar-naa	'die/kill'	a/aa
khul-naa	khol-naa	ʻopen'	u/o
lut-naa	luut-naa	'be robbed'	u/uu
piţ-naa	piiṭ-naa	'hit'	i/ii
ghir-naa	gher-naa	'surround'	i/e

Further evidence for this claim comes from a class of verbs which have the same form in both Intransitive and Transitive syntax. If these verbs are assumed to have a short vowel in the underlying form, then the identity follows from the fact that this vowel simply cannot be further shortened in the derivation of the Intransitive. If, on the other hand, the Intransitive form were basic and subject to lengthening in the Transitive, these verbs would simply be exceptions:

## (56) No Change

Intransitive	Transitive	Gloss
badal-naa	badal-naa	'change'
bun-naa	bun-naa	'weave'
bhar-naa	bhar-naa	'fill'
ghis-naa	ghis-naa	ʻrub'
rang-naa	rang-naa	'get colored/color
sil-naa	sil-naa (sii-naa)	'sew'

#### 5.3.2 Semantics

- The question of whether or not this difference is relevant syntactico-semantically is somewhat vexed.
- is there any sense in which the AA-class verbs are 'basically intransitive', or in which the NULL-class verbs are 'basically transitive'?
- (57) Encyclopedically agentive in the NULL-class: bāt-naa 'divide', bandh-naa 'tie', chhap-naa 'print', kaṭ-naa 'cut', lad-naa 'load', pis-naa 'grind', piṭ-naa 'beat', tul-naa 'weigh' etc.
- (58) Encyclopedically Non-agentive verbs in the NULL-class: gir-naa 'fall', ghul-naa 'dissolve', mar-naa 'die', muṛ-naa 'turn', nikal-naa 'emerge', ubal-naa 'boil' etc.

Most verbs in the AA-class are Non Encyclopedically Agentive.

(59) Non Encyclopedically Agentive verbs in the AA-class: bah-naa 'flow', biit-naa 'elapse', chamak-naa 'shine', hil-naa 'rock', khil-naa 'bloom', pak-naa 'ripen', pighal-naa 'melt', sar-naa 'rot' etc.

However, a small class of verbs in the AA-class do seem to be Encyclopedically Agentive.

- (60) AA-class, Encyclopedically agentive: bach-naa 'save', bahal-naa 'entertain', ban-naa 'make'. bichh-naa 'unroll'
- While there do appear to be tendencies in the two classes, they are just that, tendencies, and not exceptionless generalizations.
- $\rightarrow$  implications for directionality based theories.
- That said, the tendency of the AA-class verbs to be Encyclopedically Non-agentive is quite strong and entertains only a few exceptions.

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## 6 The Role of the Root and its associated structure

#### 6.1 Inabilitatives in Hindi

The fact that verbs that participate in the transitivity alternation share a root manifests itself in the inabilitative construction.

The inabilitative of the unaccusative and of the passive of the corresponding transitive share a common meaning.

- (61) NULL-Class (from Hook (1979):153)
  - a. Inabilitative of Unaccusative

mujh akeli-se yeh saamaan nahī: bandh-egaa I.Obl alone.f-Instr this luggage Neg tie $_{intr}$ -Fut

'I can't tie up this luggage by myself.'

b. Inabilitative of the Passive of the Transitive

mujh akeli-se yeh saamaan nah $\tilde{i}$ : baandh-aa jaa-egaa I.Obl alone.f-Instr this luggage Neg tie $_{tr}$ -Pfv Pass-Fut

'I can't tie up this luggage by myself.'

- (62) AA-Class (modification of example from Hook (1979):153)
  - a. Inabilitative of Unaccusative

yeh saamaan kisi pehelvaan-se bhii nahĩ uṭh-egaa this luggage some.Obl strong-person-Instr even Neg  $\operatorname{lift}_{intr}$ -Fut

'Even a strong person cannot lift this luggage.'

b. Inabilitative of the Passive of the Transitive

yeh saamaan kisi pehelvaan-se bhii uṭh-aa-yaa nahī jaa-egaa this luggage some. Obl<br/> strong-person-Instr even lift $_{tr}$ -Caus-Pfv Neg Pass-Fut

'Even a strong person cannot lift this luggage.'

There are certain verbs that do not participate in the causative alternation. Based on their semantics, we we can identify certain morphologically unrelated verbs as their 'causatives'.

- (63) (from Hook (1979):147-148)
  - a. jaa 'go' ↔ bhej 'send'
  - b. aa 'come' ↔ laa 'bring'
  - c. par 'be put/poured in'  $\leftrightarrow daal$  'put'

However, such 'causative' relationships do not display the identity of meaning seen above in the inabilitative with morphologically related causatives.

(64) a. Inabilitative with jaa 'go', Passive Syntax

Tina-se Dilli jaa-yaa nahî: gayaa Tina-Instr Delhi go-Pfv Neg Pass.Pfv

'Tina couldn't (bring herself to) go to Delhi.'

b. \*Inabilitative with jaa 'go', Active Syntax

\*Tina-se Mona Dilli nahĩ: gayii Tina-Instr Mona Delhi Neg go-Pfv.f

"Tina was unable to send Mona to Delhi."

c. Inabilitative with passive of bhej 'send'

Tina-se Mona-ko Dilli bhej-aa nahî: gayaa Tina-Instr Mona-Dat Delhi send-Pfv Neg Pass.Pfv

'Tina couldn't (bring herself to) send Mona to Delhi.'

## 6.2 'Case-Lifting' in Kashmiri

Hook and Koul (1984b) note the existence in Kashmiri of a curious process they call 'case-lifting'.

- conditioned by the person hierarchy
- In non-ergative tenses, an object that would appear in Hindi with the non-dative *-ko* appears in the absolutive when Person(Subj) < Person(Obj). Otherwise it appears in the dative.
- (65) (Kashmiri, from Hook and Koul (1984b):128)
  - a. (I < II, case-lifting)

bI ch-u-s-ath **tsI** yo:r an-a:n I.Nom be-M-1Sg-2Sg you.Nom here bring-Impfv

'I am bringing you here.'

b. (II < I, no case-lifting)

tsI ch-u-h-E:m **(me)** yo:r an-a:n you.Nom be-M-2Sg-1Sg I.Dat here bring-Impfv

'You are bringing me here.'

Dative Goals in ditransitives cannot be case-lifted.

However, in causative structures the intermediate agents that appear in the dative can be case-lifted.

(66) bI chu-s-an **ra:mI** hisa:b par-Ina:v-a:n

I am-I-him Ram math teach-Caus-Impfv

'I am teaching Ram math.'

Finally verbs like *ha:vun* 'show' which is semantically the causative of *vuchun* 'see', but not morphologically related to it do not allow for 'case-lifting' of their dative arguments.

- (67) a. ha:vun 'show', not a morphological causative
  - \*bI ch-u-s-ath (tsI) philim ha:v-a:n
  - I be-M-1Sg-2Sg you.Nom film show-Impfv
  - 'I am showing you a film.'
  - b. bo:z-Ina:v-un 'hear-Caus' ('tell'), a morphological causative
    - bI ch-u-s-ath (tsI) kath bo:z-Ina:v-a:n
    - I be-M-1Sg-2Sg you.Nom story hear-Caus-Impfv
    - 'I am telling you a story.'

#### 6.3 Passives in Kashmiri

In a passivized ditransitive, a dative argument cannot 'become' nominative.

- (68) (Kashmiri, from Hook and Koul (1984a):116)
  - a. IEdkI a:v tsot dInI boy.Nom Pass.Pst.M bread.f give-Inf.Abl "The boy was given bread."
  - b. lEdkas **a:yi tsoṭ** dInI boy.Dat Pass.Pst.F bread.f give-Inf.Abl

'Bread was given to the boy.'

In passivized causatives (of at least ingestive transitives), the subject *can* 'become' nominative.

- (69) a. **IEdkI a:v** tsot kh'a:v-InI boy.Nom Pass.Pst.M bread.f eat.Caus-Inf.Abl
  - 'The boy was fed bread.'
  - b. lEdkas **a:yi tsot** kh'a:v-InI boy.Dat Pass.Pst.F bread.f eat.Caus-Inf.Abl

'The bread was fed to the boy.'

Verbs like *ha:vun* 'show' which is semantically the causative of *vuchun* 'see', but not morphologically related to it do not allow for promotion of their dative argument.

- (70) a. ha:vun 'show', not a morphological causative
  - \*ra:mI chu philim ha:v-InI yIv-a:n

Ram.Nom is film show-Inf.Abl Pass-Impfv

'Ram is being shown a film.'

- b. bo:z-Ina:v-un 'hear-Caus' ('tell'), a morphological causative
  - ra:mI chu kath bo:z-Ina:v-InI yIv-a:r

Ram.Nom is story hear-Caus-Inf.Abl Pass-Impfv

'Ram is being told a story.'

• The syntax of causativization in Kashmiri seems to differ considerably from Hindi. See Hook and Koul (1987) for additional facts.

## 7 The Indirect Causative

The intermediate agent of the Indirect Causative is marked by the instrumental casemarker -se.

(71) zamiindaar-ne **dakaitõ-se** makaan jalvaa diyaa landlord-Erg bandits-Instr house.M burn-CAUS GIVE-PERF.M 'The landlord had the house burned by the dacoits.'

#### 7.1 Passive Substructure

The instrumental case-marker also appears on the demoted agents of passives.

- (72) tum-se itnaa khaanaa kaise khaayaa jaataa hai? you-Instr so-much food.M how eat-PERF.M PASS-HAB.M be.Prs 'How is it that so much food is eaten by you?' (i.e. How do you manage to eat so much food?)
- (73) Passive Fails → No Indirect Causative Structure

We take the -vaa causative, and more generally indirect causation, to involve a passive substructure.

(74) a. Passive

yeh kamraa kal khol-aa gayaa thaa this room yesterday open-PERF PASS-PERF be.Pst

'This room had been opened yesterday.'

b. Indirect Causative

Madhu-ne yeh kamraa kal khul-vaa-yaa thaa Madhu-Erg this room yesterday open-VAA-PERF be.Pst

'Madhu had the room opened yesterday.'

If the verb in question does not allow a passive, a -vaa causative is also not possible.

- (75) a. Rohit-ne [ghar jaa-naa] chaahaa Rohit-Erg home go-Ger want-PERF 'Rohit wanted to go home.'
  - b. \*Passive

\*ghar jaa-naa chaah-aa gayaa home go-Ger want-PERF Pass-PERF

c. \*Indirect Causative

\*Rohit-ne (Nupur-se) [ghar jaa-naa] chah-vaa-yaa Rohit-Erg Nupir-Instr home go-Ger want-VAA-PERF

Verbs may also fail to have -vaa causatives for other reasons. e.g. khaṭkhaṭaa 'knock' can be passivized but does not allow for a -vaa causative. One generalization that is relevant here is that denominal verbs formed by combining a nominal root with -aa lack -vaa causatives.

#### 7.2 -vaa Causatives and Transitives

It seems in most cases that the *-vaa* causative takes the stem alternant that is found in the transitive, although this often obscured by vowel-shortening rules like those found with *-aa* 

#### (76) Consonant Changing Alternations

Intransitive	Transitive	-vaa Causative	Gloss
bãt-naa	bããt-naa	bãt-vaa-naa	'divide'
badal-naa	badal-naa	badal-vaa-naa	'change
bhaag-naa	bhag-aa-naa	bhag-vaa-naa	'run'
chap-naa	chaap-naa	chap-vaa-naa	'print'
suukh-naa	sukh-aa-naa	sukh-vaa-naa	'dry'
ubal-naa	ubaal-naa	ubal-vaa-naa	'boil'

Evidence for the proposal that the -vaa causative is based on the transitive comes from a class of verbs that display in addition to vowel change, a change in the final consonant.

#### (77) Final Consonant + Vowel Change

```
chhuut-naa chhor-naa 'be free/free'
phat-naa phaar-naa 'be torn/tear'
phuut-naa phor-naa 'be burst/burst'
tuut-naa tor-naa 'break'
```

The exceptional -vaa- causatives for these verbs are formed as follows:

#### (78) Consonant Changing Alternations

chhuuṭ-naa	chhoṛ-naa	chhuṛ-vaa-naa
phat-naa	phaaṛ-naa	phaṛ-vaa-naa
phuut-naa	phoṛ-naa	phuṛ-vaa-naa
tuut-naa	tor-naa	tur-vaa-naa

The stem-final consonant in the *-vaa* causative is that found in the transitive form, not the intransitive. While the vowel in the *-vaa* causative is the same as the vowel in the intransitive, this is the result of the regular shortening of vowels that precede *-aa/-vaa*<sup>3</sup>

#### (1) Further Irregular Morphophonology

bik-naa	bech-naa	bik-vaa-naa	'be sold/sell'
simat-naa	samet-naa	simat-vaa-naa	'be collected/collect

Each of these verbs exhibits further irregularities: a change in the stem-final consonant in the first case, and two alternating vowels in the second. For the first verb, the stem form found in -vaa causative is that found in the intransitive, rather than that found in the transitive (\*bich-vaa-naa). For some speakers, however, the form bek-naa is used for the transitive (R. Kumar p.c.), in which case there is no problem. There are also speakers who permit bich-vaa-naa (Saksena (1980)).

## 7.3 -vaa-causatives of Ingesto-Reflexives

According to our proposal, *-vaa* causatives involve passive substructures based on the corresponding transitive. In the cases discussed above, there was only one corresponding transitive, hence only one passive substructure, and consequently only one structure for the *-vaa*-causative.

With the ingesto-reflexive class, there are two transitives - the ingesto-reflexive and the ditransitive based on the ingesto-reflexive. Both can be passivized. We find that the corresponding *-vaa* causatives are in fact ambiguous.

- (79) a. ingesto-reflexive
  mĒ-ne kitaab paṛh-ii
  I-Erg book.f read-Pfv.f
  'I read the book.'
  - b. ditransitive based on ingesto-reflexive m\(\tilde{E}\)-ne Raam-ko kitaab parh-aa-ii I-Erg Ram-Dat book.f read-CAUS-Pfv.f
     'I had Ram read the book.'
- (80) (ex. 33 from Saksena (1982))
  - a. Indirect Causative targetting the ingesto-reflexive mĒ-ne Raam-se kitaab paṛḥ-vaa-ii I-Erg Ram-Instr book.f read-VAA-Pfv.f 'I had the book read by Ram.'

'I had Ram made to read the book by Nina.'

 Indirect Causative targetting the ditransitive based on ingesto-reflexive m\(\tilde{E}\)-ne Nina-se Raam-ko kitaab parh-vaa-ii I-Erg Nina-Instr Ram-Dat book.f read-VAA-Pfv.f

<sup>&</sup>lt;sup>3</sup>There are two additional verbs which suggest that this generalization is not entirely correct.

# **8** Allomorphy of Causative Heads

Generalizations about allomorphy:

- The -vaa exponent always appears as the exponent of the Indirect Causative head v[IND]. Moreover, the head v[IND] can always be realized as -vaa.
- 2. The -aa allomorph of v appears in the following environments:
  - (a) As the realization of the v[AG] with a certain class of Roots (i.e. the AA-class)
  - (b) As the realization of a v[AG] taking a type of dative complement in the Ingestive class
  - (c) As the (optional) realization of v[IND] for a listed class of verbs, which are a subset of the verbs in the ablauting class
    - (81) -aa/-vaa Apparently Synonymous

(Di)transitive	Causative2	Gloss
chhuu-naa	?chhu-aa/vaa-naa	'touch'
de-naa	dil-aa/vaa-naa	'give'
dho-naa	dhul-aa/vaa-naa	'wash'
gin-naa	gin-aa/vaa-naa	'count'
kaat-naa	kat-aa/vaa-naa	'cut'
kah-naa	kahl-aa/kahal-vaa-naa	'say'
kar-naa	kar-aa/vaa-naa	'do'
khel-naa	khil-?aa/vaa-naa	'play'
likh-naa	likh-aa/vaa-naa	'write'
rakh-naa	rakh-aa/vaa-naa	'put'
sil-naa	sil-aa/vaa-naa	'stitch'
tor-naa	tur-aa/vaa-naa	'break'

- 3. A -Ø exponent appears in the following environments:
  - (a) As the realization of v[AG] in the transitives of the Ablauting class of verbs
  - (b) As the realization of a v that is dominated by another v, whether in the Ingestives or in the Indirect Causatives

For the -Ø:

(82) a. 
$$\emptyset \leftrightarrow v/\text{LIST}$$
b.  $v \longrightarrow \emptyset/$ \_\_ ]  $v^4$ 

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Type	base	base-CAUS	base-CAUS-CAUS	Gloss
Unaccusative	grak	grak-Ina:v	grak-Ina:v-Ina:v	'boil intr/boiltr/cause to boil'
Unergative	pak	pak-Ina:v	pak-Ina:v-Ina:v	'walk/move,drive/cause to drive'
Ingestive	par	par-Ina:v	par-Ina:v-Ina:v	'study/teach/cause to teach'
Transitive	kar	kar-Ina:v	kar-Ina:v-Ina:v	'do/cause to do/cause to'

This difference between Hindi and Kashmiri can be correlated to the fact that Hindi has different exponents -aa and -vaa associated with transitives and (indirect) causatives respectively, while Kashmiri has just one exponent -Ina:v.

Note also that kar-Ina:v 'do-CAUS' and kar-Ina:v-Ina:v 'do-CAUS-CAUS' seem to have the same meaning involving indirect causation. This is parallel to the apparent synonymy between -aa and -vaa causatives of certain verb in Hindi e.g. kar-aa 'cause to do' and kar-vaa 'cause to do' (cf. 81).

<sup>&</sup>lt;sup>4</sup>In the related Modern Indo-Aryan language Kashmiri, this process does not seem to be at play. We find patterns of the following sort.

i. (from Hook and Koul (1984a))

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