

3 Syntax of Sanskrit Causatives

3.1 Active Causatives

– There are two types of argument structure for active causatives formed to transitive verbs: ‘accusative-accusative’ (ACC-ACC) in (1b) and ‘oblique-accusative’ (OBL-ACC) in (1c). (The latter is not found in early Vedic). A large number of attested examples omit the causee/embedded subject, as in (1d).

- (1) a. *devadatto kaṭam karoti*
D.NOM mat.ACC make.PRS.3SG
‘Devadatta makes a mat.’
- b. *yajñadatto devadattam kaṭam kārayati* ACC-ACC
Y.NOM D.ACC mat.ACC make.CAUS.PRS.3SG
‘Yajñadatta makes Devadatta make a mat.’
- c. *yajñadatto devadattena kaṭam kārayati* OBL-ACC
Y.NOM D.INSTR mat.ACC make.CAUS.PRS.3SG
‘Yajñadatta makes Devadatta make a mat/has a mat made by Devadatta.’
- d. *yajñadatto kaṭam kārayati* 0-ACC
Y.NOM mat.ACC make.CAUS.PRS.3SG
‘Yajñadatta has a mat made.’

3.2 Passive Causatives

Likewise, there are two types of argument structure for passive causatives: passivisation on the embedded subject (PC-S) in (2a) and passivisation on the embedded object (PC-O) in (2b).

- (2) (a) *devadatto vrkṣam chedyate yajñadattena* PC-S
D.NOM.SG wood.ACC.SG cut.CAUS.PASS.PRS.3.SG Y.INSTR.SG
‘Devadatta is made to cut the wood by Yajñadatta.’
- (b) *vrkṣo devadattena chedyate (yajñadattena)* PC-O
wood.NOM.SG D.INSTR.SG cut.CAUS.PASS.PRS.3.SG (Y.INSTR.SG)
‘The wood is made to be cut by Devadatta (by Yajñadatta).’

→ **Questions:**

Can we account for this variation in active and passive causatives?

Is there a relationship between one of the active and one of the passive patterns?

4 Past Scholarship

4.1 Pāṇini

On Active Causatives

– **Default:** a verb with *karṭr* agent/subject (by 1.4.54) and *karman* patient/object (by 1.4.49) is causativised without any change in the semantic function of its arguments. During case assignment: *karṭr* gets INS case (by 2.3.18), not NOM because the verb agrees with the causer (*hetu*), not the original *karṭr*. The *karman* gets ACC (by 2.3.2) (our OBL-ACC).

– **Exception:** (a) verbs of motion, perception, eating or producing a sound, and also intransitive verbs make the agent *karṭr* of the simple verb the object *karman* in the causative (by 1.4.52) (our ACC-ACC); (b) with \sqrt{hr} ‘to take’ and \sqrt{kr} ‘to do’, ACC-ACC is optional (*anyatarasyām*, 1.4.53), i.e. ACC-ACC and OBL-ACC are both possible.

On Passive Causatives

Given what Pāṇini says (separately) about the causative and about the passive, it should be the case that the PC-S passive is the passive of the ACC-ACC active causative, and the PC-O passive is the passive of the OBL-ACC active causative.

4.2. Modern/more recent scholarship

On the choice of construction with active causatives

Difference in construction based on semantics, not lexicon:

Intended Expression: whether the causer acts on the embedded subject (ACC-ACC) or on the embedded object (OBL-ACC) (Speyer 1886: 36-37).

Affectedness/Agency of Causee: OBL-ACC marked in origin, indicating lower agency and/or affectedness of the causee/embedded subject (increase in frequency through interaction with other INS arguments) (Hock 1981, Bubeník 1987).

Contactive/Non-Contactive Causation: ACC-ACC contactive vs. OBL-ACC non-contactive (Bubeník 1987).

On passive causatives:

Passivisation on embedded object (our PC-O) seen as rare: only two instances known to Speyer (1886:37-38), seen as common only with the verb \sqrt{han} ‘to strike, kill’ by (Bubeník 1987) (but NB: small corpus). Passive causative not found in early Vedic (Hock 1981)

5 Our study

5.1 Corpus Data

– We extracted finite active and passive forms and past passive participles to all possible causative stems (as listed in Whitney) from our textual corpus¹, generating ~80,000 hits.

– We focused on a subset of **11 roots** of verbs that are **transitive** (possibility of causer, causee and object in the active, and choice of PC-S and PC-O in the passive) and **semantically regular/productive** (i.e. causative meaning).

– We **excluded**:

(i) causative formations with the same meaning as the simple transitive (Class X) present-tense form (many of which have nasal presents, e.g. $\sqrt{kṛt}$ (*kṛntati*) ‘cuts’, \sqrt{stambh} (*stabhnoti*) ‘stops, supports’, \sqrt{lup} (*lumpati*) ‘breaks’, $\sqrt{dṛ}$ (*dṛṇāti*) ‘tears’, \sqrt{str} ‘spreads’ (*strṇāti*), \sqrt{vr} (*vrṇoti*) ‘to cover’, \sqrt{vr} (*vrṇāti*) ‘to choose’);

(ii) idiomatic usages (e.g. $\sqrt{jñā}$ ‘to know’ → *jñāpayati* ‘orders, gives an order to sb.’ (+ Gen/Dat);

(iii) ambiguous cases (such as certain forms of the Pass Caus of \sqrt{vah} ‘(intrans.) to travel; (trans.) to drive’ where it is unclear if they derive from transitive or intransitive use of \sqrt{vah}).

- Total number of **1,204** tokens of genuine causatives examined: **775** finite active, **429** *ta*-participles, **84** finite passives.

¹ The **corpus** consists of Vedic texts (Rg- and Atharvaveda, digitally available Vedic prose texts), a selection of Upaniṣads and Purāṇas, both Epics, and a variety of Classical Sanskrit texts (from different genres, not in *sūtra* style, digital, ideally with a matching translation available).

6 Results

6.1 Active Causatives: ACC-ACC vs. OBL-ACC

– Table 1 shows 775 tokens of active causatives of 10 roots (\sqrt{vah} : no ACT CAUS forms from the transitive base) that are unambiguously ACC-ACC, unambiguously OBL-ACC ($\sqrt{śru}$ ‘hear’ also has GEN-ACC), and those which lack an explicit embedded subject:

Pāṇini	ROOTS	NO SUBJ		ACC SUBJ		OBL SUBJ	TOTAL
		0	0-ACC	ACC-0	ACC-ACC	OBL-ACC*	
INS-ACC only	\sqrt{pac} ‘cook’	2	18	0	0	1	21
	\sqrt{grah} ‘seize’	0	15	4	12	28	59
	\sqrt{han} ‘strike’	8	75	0	2	9	94
	$\sqrt{dā}$ ‘give’	1	23	3	4	0	31
either	\sqrt{kr} ‘do’	4	103	1	14	6	128
	\sqrt{hr} ‘carry’	5	58	0	5	4	72
ACC-ACC only	$\sqrt{paṭh}$ ‘read’	1	2	2	3	0	8
	\sqrt{bhuj} ‘eat’	6	14	196	20	0	236
	$\sqrt{jñā}$ ‘know’	6	7	14	10	2	39
	$\sqrt{śru}$ ‘hear’	30	24	6	21	6	87
	TOTAL	63	339	226	91	56	775

Table 1: Active Causatives

^x includes two GEN-ACC in addition to OBL-ACC

Possible interpretations:

1) **Contra Pāṇini:** ACC-ACC is not as restricted as Pāṇini says: examples (3a) and (3b) show the verbs \sqrt{han} ‘to strike, kill’ and $\sqrt{dā}$ ‘to give’, respectively, in an ACC-ACC pattern; among regular transitive verbs.

(3) (a) *evaṃ daśa sutās tasya kamsas tān aghāṭayat*
 thus ten daughter.ACC.PL he.GEN.SG Kamsa.NOM.SG they.ACC.PL.MASC kill.CAUS.IMPF.ACT.3.SG
 ‘Kamsa caused them to kill that one’s ten daughters.’ (*Brahmāṇḍa Purāṇa* 2,71.182)

(b) *sa ṛṣīṇ karam adāpayat*
 he.NOM.SG seer.ACC.PL tribute.ACC.SG give.CAUS.IMPF.3.SG
 ‘He made the Rishis pay (caused them to give) tribute.’ (*Mahābhārata* 1,70.26)

– A further look into the data shows that from 33 instances that go against the traditional classification (25 ACC-ACC instead of OBL-ACC and 8 OBL-ACC instead of ACC-ACC), 10 are pre-Pāṇinian, 11 from the Epics (also pre-Pāṇinian features), the remaining 12 are post-Pāṇinian from a variety of genres, mainly from narratives.

2) **Semantic distinction between ACC-ACC and OBL-ACC?** 19th/20th-c scholarship focus on semantic factors deciding between ACC-ACC and OBL-ACC, which intuitively seems right; but actual examples far less clear-cut.

– $\sqrt{śru}$ ‘to hear’ with GEN-ACC (4a), OBL-ACC (4b), ACC-ACC (4c), 0-ACC (4d).

(4) (a) *ānanda-vacanam satvānām śrāvayati*
 pleasant-speech.ACC.SG creature.GEN.PL hear.CAUS.PRES.3.SG
 ‘He makes pleasant speech heard by the people.’ (*Śikṣāsamuccaya* 16) (8th c AD)

- (b) *guruṇā tan mantraṃ śravayet*
 teacher_{.INS.SG} this_{.ACC.SG} mantra_{.ACC.SG} hear_{-CAUS.POT.3.SG}
 ‘he who causes the mantra to be heard by the guru’ (*Mātrkābhedantra* 12.56) (13th c AD?)
- (c) *ye ca itihāsaṃ śrāvayanti dvijottamān*
 who_{.NOM.PL} and history_{.acc.sg} hear_{.CAUS.3.PL} twiceborn-best_{.ACC.PL}
 ‘... those who make the best of twice-borns hear the sacred histories’ (*Mahābhārata* 13.90.26)
- (d) *ya idam śrāvayed vidvān yaś ca idam śrṇuyān naraḥ*
 which_{NOM.SG.MASC} it_{ACC.SG} hear_{CAUS.POT.3.SG} knowing_{NOM.SG} which_{NOM.SG.MASC} and_{ACC.SG} it_{POT.3.SG} hear_{POT.3.SG} man_{NOM.SG}
 ‘the man who causes it to be heard (who reads it out) and (the man) who hears it’
 (*Mahābhārata* 1.56.14)

– √*grah* ‘to take’ with OBL-ACC (5a) and ACC-ACC (5b).

- (5) (a) *vidita-arthas tu pārthivas tvayā duhituḥ pāṇim grāhayiṣyati*
 but king_{.NOM.SG} you_{.INS.SG} daughter_{.GEN.SG} hand_{.ACC.SG} take_{-CAUS.FUT.3.SG}
 ‘Once the king has been informed of how things stand, he will make you take his daughter’s hand.’ (*Daśakumāracarita* 11.41)
- (b) *pitarau (...) tasyā dārikāyā yathārheṇa karmaṇā māṃ pāṇim agrāhayetām*
 parents_{.NOM.DU} that_{.GEN.SG.FEM} girl_{.GEN.SG} appropriate_{.INS.SG} action_{.INS.SG} I_{.ACC.SG} hand_{.ACC.SG} take_{-CAUS.IMPF.POT.3.DU}
 ‘(My father and mother were more than delighted. They looked at the man of despicable character, placed him under confinement, and) arranged for me to take the hand of that young lady in marriage with the appropriate rites.’ (*Daśakumāracarita* 9.107)

3) The Instrument in the Causative: origin of OBL-ACC?

– Instrumental-case causer or instrument in Vedic active causatives (Hock 1981).

- (6) *indram ná yajñaiś citáyantaḥ*
 I_{.ACC.SG} like sacrifice_{.INS.PL} notice_{-CAUS.PRES.PTC.NOM.PL}
 ‘Making Indra take notice (of us) with our sacrifices like...’ (*R̥gveda* 1,131.02)

– The instrumental case can indicate causer (7a) or embedded subject (7b), or be ambiguous (7c).

- (7) (a) *devair vijñāpyate ca idam*
 god_{.INS.PL} know_{-CAUS.PASS.3.SG} and it_{.NOM.ACC.NEUT}
 ‘And it is caused to be known by the gods.’ (*Viṣṇu Purāṇa* 5,37.20)
- (b) *śeṣam āryayā jñāpyatām*
 remainder_{.NOM.SG} lady_{.INS.SG} know_{-CAUS.IMP.3.SG}
 ‘Let the remainder be made known by the lady.’ (*Bṛhatkathāślokaśaṃgraha* 4.37)
- (c) *upadeśo mama apy eṣa yuṣmābhir dāpyatām*
 advice_{.NOM.SG.MASC} I_{.GEN.SG} also this_{.NOM.SG.MASC} you_{.INS.PL} give_{-CAUS.PASS.IMPV.3.SG}
 ‘Let this my advice be caused to be given by you.’ (*Kathāsaritsāgara* 3,6.106)

4) The high frequency of 0-ACC (339), well above OBL-ACC and ACC-ACC combined, suggests that it is more of a separate formation, or at least has become that. And this correlates with the fact that many other causatives do not have genuine causative sense, as discussed in the previous section, and also correlates with the diachronic developments seen in Middle Indic (Edgerton 1946). The use of 0-ACC may represent the beginnings of the loss of causativity in the causative.

– This also has the consequence of reformulating the function of the causative as shifting focus, rather than adding valence, as shown in (8).

- (8) *ghāṭayāmi kīcakam yadi manyase*
 kill_{.CAUS.1.SG} K_{.ACC.SG} if think_{.2.SG}
 ‘I will have Kīcaka killed, if you want it.’ (*Mahābhārata* 4.15.4)

– Both 0 and 0-ACC instances in principle correspond with both ACC-ACC and OBL-ACC, but we might expect it more to correlate with OBL-ACC if we assume the core object (i.e. the embedded subject) to be less omissible.

5) **ACC-0 instances are also frequent (226)** and we can assume they most naturally correlate with ACC-ACC, with ellipsis of the second object. Nevertheless, for *bhuj* ‘eat’ (196 instances) it might also correlate with ACC-INS and the semantically specialised meaning of ‘feed with’.

6.2 Passive Causatives: PC-S vs. PC-O

– We found considerable variation in preference for passivisation on the embedded subject (PC-S) vs. the embedded object (PC-O). Table 2 shows variation in the preference of 513 tokens from finite passive and *ta*-participle forms of 11 roots.

– The general preference for PC-S is more pronounced with the *ta*-participles, and the past participles are much more common than finite verbs, accounting for 70% of the forms shown in Table 2, which corresponds to the widespread use of theta-participles in Sanskrit.

ROOT	Finite			<i>ta</i> -participle			Total Passive		
	PC-O	PC-S	PC-S Proportion	PC-O	PC-S	PC-S Proportion	PC-O	PC-S	PC-S Proportion
√ <i>paṭh</i> ‘read’	0	1	1	0	3	1	0	4	1
√ <i>bhuj</i> ‘eat’	2	1	.33	2	19	.90	4	20	.83
√ <i>jñā</i> ‘know’	14	9	.39	4	66	.94	18	75	.80
√ <i>vah</i> ‘carry’	12	5	.29	0	36	1	12	41	.74
√ <i>grah</i> ‘seize’	2	1	.33	4	12	.75	6	13	.68
√ <i>śru</i> ‘hear’	1	1	.5	17	34	.66	18	35	.66
√ <i>dā</i> ‘give’	3	4	.57	7	6	.46	10	10	.5
√ <i>kr</i> ‘do’	13	8	.38	73	38	.34	86	46	.34
√ <i>hr</i> ‘carry’	3	2	.4	28	1	.03	31	3	.08
√ <i>han</i> ‘strike’	1	0	0	73	0	0	74	0	0
√ <i>pac</i> ‘cook’	1	0	0	6	0	0	7	0	0
TOTAL	52	32	.38	214	215	.50	266	247	.48

Table 2: Passivisation on Subjects (PC-S) and Objects (PC-O)

Possible interpretations:

1) **Prior scholarship saw passivisation on the embedded object (PC-O) as rare:** Table 2 shows that passivisation on the embedded object is more common for those 11 roots than passivisation on the embedded subject (52 vs. 32).

2) But the figures in Table 2 also show considerable variation between the different roots in the preference for passivisation on the embedded subject (PC-S) vs. passivisation on the embedded object (PC-O).

i) \sqrt{han} entirely PC-O: again ‘is caused to be killed’ omission of both agent and subject possible, focussing just on the (soon to be) dead person.

- (9) *sthāpitā* *buddha-mudrāḥ* *sam-ud-ghātītāḥ* *sarva-mārāḥ*
stand.CAUS.PASS.PTC.NOM.PL.MASC Buddha.seal.nom.pl.masc kill.CAUS.PASS.PTC.NOM.PL.MASC all-
Māra.NOM.PL.MASC
‘The seals of the Buddha (were) established, all Māras (were) caused to be killed.’
(*Śikṣasamuccaya* 19)

ii) \sqrt{hr} ‘to carry’ mostly PC-O: similar to \sqrt{han}

iii) \sqrt{kr} ‘to do’ part PC-O, part PC-S: semantically fairly empty, can be used for all sorts of expressions: (10) shows passivisation on the embedded object of \sqrt{kr} ‘to do’, (11) passivisation on the embedded subject.

- (10) *vivāhaḥ* *kārito* *mayā*
marriage.NOM.SG do.CAUS.PASS.PTCL.NOM I.INS.SG
‘I had the marriage carried out (lit. ‘the marriage was caused to be done by me’).’
(*Bṛhatkathāślokaśaṃgraha* 14.118)

PC-O

- (11) *candrāsannair* *hi* *nakṣatrain* *lokaḥ* *kāryāṇi* *kāryate*
moon-conjunction.INS.PL indeed star.INS.PL world.NOM.SG duty.ACC.PL do.3.SG.CAUS.PASS
‘The world is caused to do the things that need to be done by/according to the
constellations in conjunction with the moon’ (*Bṛhatkathāślokaśaṃgraha* 15.6) PC-
S

iv) $\sqrt{jñā}$ ‘to know’ and $\sqrt{śru}$ ‘to hear’ (12) and some other verbs: PC-S with people (make someone hear/know/etc), PC-O with things (make something heard/known/etc).

- (12) (a) *śrāvitaḥ* *amātya-sandēśaṃ* *stanakalaśaḥ*
hear.CAUS.PASS.PTC.NOM.SG.MASC minister-message.acc.sg S.NOM.SG.MASC
‘Stanakalaśa was caused to hear the minister’s message.’ (*Mudrārākṣasam*)
(b) *kena* *punar* *idānīm* *sa* *lekhaḥ* *śrāvitaḥ*
who.INS.SG again now this.NOM.SG.MASC letter.NOM.SG.MASC hear.CAUS.PASS.PTC.NOM.SG.MASC
‘by whom was this letter caused to be heard (i.e. read out) again?’ (*Priyadarśikā*)

3) **Animacy**: tendency for PC-S with +animate/+human, PC-O with -animate/-human. But note: animal PC-S in (13a), women PC-O in (13b).

- (13) (a) *na* *vyāpāra-śatena* *api* *śukavat* *pāṭhyate* *bakaḥ*
no actions-hundred.INS.SG even like-a-parrot recite.CAUS.PASS.3PL heron.NOM.SG
‘The heron cannot be taught to speak like a parrot, even by a hundred repetitions.’ (*Hitopadeśa* 0.42)
(b) *gandhārva-vivāhena* *sā* *vivāhitā*
gandharva-marriage.INS.SG she.NOM.SG lead-away.CAUS.PTC.NOM.SG.FEM
‘She was married (lit. ‘caused to be led’) by/in a gandharva-marriage.’ (*Pañcatantra*
1.225)

4) **Compounds:** Past passive participles can also present the relevant patterns in compound formation: PC-O in (14a) and PC-S in (14b).

(14) (a) *sarvaṃ* *tan* *manyu-kāritam*
 all-NOM.SG.NTR this-NOM.SG.NTR rage-done-CAUS.PTCL.NOM.SG.NTR
 ‘All this is caused to be done by your rage.’ (*Mahābhārata* 5,73.11)

(b) *māṭali-vāhito* *rathaḥ*
 M.-carried-CAUS.PTCL.NOM.SG chariot-NOM.SG
 ‘The chariot that was caused to move by Māṭali.’ (*Abhiṣekanāṭakam* 6)

6.3 Relationship between Active and Passive Causatives

– One assumption that has been suggested, but not investigated, in prior work is the relationship between the active and the passive patterns: if passivisation of the embedded subject (PC-S) represents the passive of the ACC-ACC active causative; while the passivisation of the embedded object (PC-O) represents the passive of the OBL-ACC active causative.

– Looking back at Table 1, roots that only show 0/ACC-ACC constructions (and not OBL-ACC), such as *paṭh* ‘recite’ (5 vs. 0), *jñā* ‘know’ (24 vs. 1), have a tendency towards passivisation of the embedded subject: 4 vs. 0 and 75 vs. 18, respectively. But the distribution of other roots is not as clear.

– Comparing the patterns in the passive causatives with those in the active causatives presents its challenges:

- i) First, the data from the active causatives is more restricted: not all causatives forms were genuine causatives, some maintain a simple transitive meaning, i.e. nasal presents; other were used as idioms; and others were ambiguous between the transitive or intransitive base.
- ii) Second, the embedded subject is often not explicit in the active causative data, leaving the construction ambiguous between ACC-ACC and OBL-ACC causatives.

– **Correlation matrix:** the ‘correlation’ is a measure of the dependence between two variables. It is expressed in the form of a correlation coefficient, which is measured on a scale from -1 to +1. The closer the value is to +1 or -1, the more closely the two variables are related. A positive correlation coefficient means they both move together in the same direction. An increase in one is accompanied by an increase in the other and a reduction in one is accompanied by a reduction in the other. A correlation coefficient of -1 represents a negative correlation. This means when one increases, the other decreases and vice-versa. A value of 0, however, means that there is no correlation between the two and they are not related to each other at all.

	PASS.PC-S	PASS.PC-O	ACT.0	ACT.0-ACC	ACT.ACC-0	ACT.ACC-ACC	ACT.OBL-ACC
PASS.PC-S		0.16	0.28	0	0.81	0.53	-0.08
PASS.PC-O	0.16		0.08	0.95	-0.22	-0.04	0.09
ACT.0	0.28	0.08		0.03	0.24	0.58	-0.06
ACT.0-ACC	0	0.95**	0.03		-0.41	-0.04	0.09
ACT.ACC-0	0.81*	-0.22	0.24	-0.41		0.24	0.04
ACT.ACC-ACC	0.53	-0.04	0.58	-0.04	0.24		0.16
ACT.OBL-ACC	-0.08	0.09	-0.06	0.09	0.04	0.16	

* Significant p-value of 0.0049 (≤ 0.05) ** Significant p-value of 0 (≤ 0.05)

Table 3: Correlation Matrix

- The matrix in table 3 shows a high correlation between the occurrence of passive PC-O and active 0-ACC. This correlation is statistically significant.
- There is also a high correlation between passive PC-S and active ACC-0. This correlation is also statistically significant.
- Note there is a negative correlation between passive PC-O and active ACC-0, but this is also non-significant (p-value of 0.541). In these lines, there is no correlation (zero) between passive PC-S and active 0-ACC.
- These results partly support our claim that there is a correlation between the patterns found in the active causative and those in the passive causatives.

7 Conclusions

- Causatives and their passives in Sanskrit are of interest because the two cross-linguistically common patterns of causativisation are found together in the same language, and even with the same verb forms.
- The variation between ACC-ACC and OBL-ACC, as well as PC-O and PC-S is more complex than described in prior work. This is evident with a larger sample data.
- Many causatives, and passive causatives, appear more like transitive verbs than true causatives; seems especially common beside transitive nasal presents.
- There is great variation among roots that can be explained using the pragmatic notions of focus and animacy. Also reformulating the function of causatives in Sanskrit.
- Partial correlation between active and passive patterns.

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