Licensing of Instrumental Case in Hindi/Urdu Causatives

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1. Introduction

There is a long tradition in the generative literature of interpreting the presence of the *by*-phrase adjunct in the English passive as the signal of a 'demoted argument', in this case, the AGENT of the corresponding active (Jaeggli 1986, Grimshaw 1990, Baker et al. 1989) or a AGENT feature in the syntax (Embick 2004).[1] In the case of Hindi/Urdu causative constructions, an instrumental *se*-marked adjunct is licensed with an 'intermediate agent/causee' interpretation in the indirect morphological causative using the suffix *-vaa* (Masica 1991, Saksena 1982b, Kachru 1980, Hook 1979), inviting comparisons with the demoted agent analysis of English *by*-phrases. In this paper, I revisit the licensing and interpretation of instrumental case-marked nominals in Hindi/Urdu causative constructions to argue against the hypothesis that the *se*-marked phrase corresponds to a demoted agent. Rather, I will argue that a more unified analysis of *se*- phrases can be achieved through an event-structural analysis, in line with the standard interpretation of other adverbials in the syntax (cf. Ernst 2002). Since the 'intermediate agent' interpretation is only possible with indirect causatives in Hindi/Urdu, the event structural analysis proposed here also has implications for the direct vs. indirect causation distinction in the syntax.

The paper is organised as follows. In the first section, I lay out the basic facts about direct and indirect causation in Hindi/Urdu with respect to distribution and interpretation. I argue here, following Saksena (1982b) that the indirect causative is not derived from, and cannot be seen as the 'second causative' of the direct causative. In section 3, I present new facts about the licensing and interpretation of *se*-marked phrases in these different

[1] More recently, there are those who have argued that the *by*-phrase is itself in the Spec, vP position of an agentive little v, and is thus a syntactically represented argument (Goodall 1997, Collins 2005). Since I will end up arguing against the correlation with thematic role in any case for the Hindi/Urdu instrumental case, I do not consider this class of theories further.

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causatives, arguing that the intermediate agent interpretation is not correlated with a demoted Agent in the base verb's argument structure, or even with the so-called 'indirect' causative suffix. Section 4 presents an analysis in terms of a concrete verbal event structure decomposition in the syntax, and discusses the implications of the analysis for theories of syntax-semantics interface, and the event structural properties of indirect causation. Section 5 is the conclusion.

2. Direct and Indirect Causatives in Hindi/Urdu

Nearly every verb in Hindi/Urdu can undergo morphological causativization (Kachru 1976, Hook 1979, Masica 1991, Saksena 1982b). In Hindi/Urdu there are two distinct suffixes that attach directly to verbal stems to create causative secondary stems: *-aa*, traditionally seen as a transitivizer, or 'direct causative'; and *-vaa*, the 'indirect causative' . The following triple shows an intransitive stem (a), a causative in *-aa* (b) and a causative in *-vaa*, all based on the same root.[2][3]

(1) a. Makaan ban-aa
house make-PERF.M.SG
'The house was built.'

b. Anjum-ne makaan ban-**aa**-yaa
Anjum-ERG house make-*aa*-PERF.M.SG
'Anjum built a house.'

c. Anjum-ne (mazdurõ-se) makaan ban-**vaa**-yaa
Anjum-ERG labourers-INSTR house make-*vaa*-PERF.M.SG
'Anjum had the labourers build a house.'

(from Butt 2003)

[2] In the data, the following conventions are used in the romanised transcription: vowel length is represented by doubling, Ṽ represents a nasalised vowel; Ç is a retroflex consonant; the Ch digraph represents an aspirated consonant. In the glosses the abbreviations used are: PROG = progressive, PERF = perfective, PASS= passive, F= feminine agreement, M= masculine agreement, SG= singular agreement, PL= plural agreement, PRES= present tense, PAST = past tense, NF= non-finite, ERG= ergative case, NOM= nominative case, INSTR= instrumental case, ACC= accusative case, DAT= dative case

[3] The simple past tense in Hindi/Urdu is formed from a perfective participle which agrees with the structurally highest nominative argument in gender and number, with no overt copula or auxiliary. The perfective participle is the simple verb stem and the *-aa/yaa* vowel seen in these examples is the masculine singular agreement ending, which, unfortunately is homophonous with the direct causative marker *-aa*. No confusion should arise though, since the agreement complex is always the most peripheral morpheme in the word.

It is important to note that although it is necessary to use the English passive construction to gloss the (a) example above, the verb in (1a) is a simple underived verb stem and is intransitive/unaccusative. It denotes the event of a house undergoing development by building; it cannot take a 'by-phrase' or an instrumental; there is no implicit agent available for control. Unlike English (but like, for example Stat'imcets (Davis and Demirdache 2000)) most transitive verbs are *derived* from bare unaccusative stems such as these. In fact, there are extremely few verbs in Hindi/Urdu which only exist in transitive form with no intransitive counterpart in the above sense. In a language like English where a verb like *build* is transitive in its basic form, a passive construction must be used to approximate the Hindi/Urdu meaning.

The *-vaa* causative is traditionally considered to be the 'indirect' causation marker, interpreted by Kachru 1980 as a 'second' causative, and by Shibatani 1973 as a 'syntactic' causative alongside a more 'lexical', 'first causative' *-aa*. Thus, there are two main questions that arise for this pattern. Firstly, what is the structural and/or semantic difference between 'direct' and 'indirect' causation? Should it be analysed in terms of 'lexical' vs. 'syntactic' processes (cf. Shibatani 1973), or some syntactic version of this idea in terms of 'inner' and 'outer' causativization involving recursion? Secondly, what licenses the presence of the *-se* marked adjunct as intermediate agent?

While the examples above, given in sequence as they are, give the impression that the *-vaa* causative is the causative of the *-aa* causative, it is important to point out that the *-vaa* suffix does not attach to the *-aa* suffixed stem, but attaches *instead* of the *-aa* suffix. In fact, the *aa* and *-vaa* suffixes never occur simultaneously on the same root in Hindi/Urdu. Thus, the morphology does not support causative embedding by *-vaa* causatives of *-aa* causatives. From a semantic point of view also, there are cases which do not support an embedding analysis. For example, as pointed out by Saksena 1982b, the *-vaa* causative form in the (a) examples below does not entail the truth of the *-aa* causative in the (b) examples.

(2) (a) mai-nee laṛke-ko do baje khil-**vaa**-yaa
I-ERG boy-DAT two o'clock eat-vaa-PERF.M
'I had the boy eat at two o'clock.'

(b) kisii-nee laṛke-ko do baje khil-**aa**-yaa
someone boy-DAT two o'clock eat-aa-PERF.M
'Someone fed the boy at two o'clock.'

(3) a. mãĩ-ne laṛke-ko paṛh-**vaa**-yaa
I-ERG boy-DAT study-vaa-PERF.M
'I had the boy study.'
b. mãĩ-ne laṛke-ko paṛh-**aa**-yaa
I-ERG boy-DAT study-aa-PERF.M
'I taught the boy.'
(from Saksena 1982)

One important aspect of the description of these two suffixes concerns their distribution. We can make concrete proposals about their role in the verbal argument structure if we understand what classes of verb they attach to and with what effects. According to the literature on causativization crosslinguistically, 'direct' causative or simple transitivizing morphology is often restricted to intransitives, and sometimes more specifically, unaccusatives (Nedjalkov and Silnitsky 1973, Rice 2000, Shibatani 2002). Periphrastic causatives tend to show no restrictions according to verb type, and also tend to have the 'indirect' causative interpretation (Shibatani and Pardeshi 2002). Given that the two causative morphemes *-aa* and *-vaa* in Hindi/Urdu have the meanings of direct and indirect causation respectively, one might expect a difference in their distribution, with the 'indirect' causative being more productive than the the 'direct' causative.

2.1. 'Causativization' of Intransitives

In what follows, I will show that with respect to different types of verbal root, there is no clear evidence that the *-vaa* suffix attaches to anything different or 'bigger' than the forms that the *-aa* suffix attaches to. Firstly, we can consider the intransitive roots in Hindi/Urdu which pass the tests for unaccusativity.[4]

[4]This list is taken from Bhatt (2003). Bhatt's diagnostics for unaccusativity are the following:
(i) The past participle of unaccusatives can be used in a reduced relative, unergatives not.
(ii) Unaccusatives can never form impersonal passives, while unergatives can.
(iii) Only unaccusatives form an inabilitative construction, unergatives (and transitives) require passive morphology to do so. According to Ahmed (2007), verbal roots actually perform differently on these tests depending on whether an animate or an inanimate subject is used. As far as I can tell, this latter point does not substantially affect the arguments made in this section of the paper.

(4)

Intransitive	**Gloss**
ban-naa	'be made'
ḍuub-naa	'drown'
gal-naa	'melt'
gir-naa	'fall'
jaag-naa	'wake up'
so-naa	'sleep'
suukh-naa	'dry'
uṭh-naa	'rise'

Both the *-aa* suffix and the *-vaa* suffix can attach to these verbal roots to give transitive forms, where the subject of the intransitive becomes the direct object argument.[5]

(5) a. garam havaa uṭhii
hot air rise.PERF.F
'The hot air rose.'

b. Anjum-ne ṭebil uṭh-aa-yii
Anjum-ERG table rise-aa-PERF.F
'Anjum raised/lifted the table.'

c. Anjum-ne ṭebil uṭh-vaa-yii
Anjum-ERG table rise-vaa-PERF.F
'Anjum raised/lifted the table.'

When this verb is used with an animate subject in its intransitive form, it has the meaning 'to wake up'. In this meaning too, the *-aa* and *-vaa* suffixes can be applied to give forms that mean that somebody woke someone up.

(6) Mary uṭhii
Mary rise.PERF.F
'Mary woke up.'

b. Anjum-ne Mary-ko uṭh-aa-yaa
Anjum-ERG Mary-ACC rise-aa-PERF.M
'Anjum woke Mary up.'

c. Anjum-ne Mary-ko uṭh-vaa-yaa
Anjum-ERG Mary-ACC rise-vaa-PERF.M
'Anjum woke Mary up.'

[5]Thanks to Tafseer Khan Ahmed for judgements in this section and for providing clear minimal pairs.

In both of these cases, the only difference between the (b) sentences and the (c) sentences is that in the former, the subject must have lifted or done the waking herself, whereas in (c) she could have simply ordered it, or brought it about that it was done.

The class of unergative intransitives is much smaller, but according to the diagnostics given by Bhatt 2003 the following verbs (with animate subjects) are unergatives.

(7)

Unergative	**Gloss**
chal-naa	'move, walk'
dauṛ-naa	'run'
hãs-naa	'laugh'
naach-naa	'dance'
uṛ-naa	'fly'

These verbal roots also 'transitivize' both with *-aa* and *-vaa*, but the direct object of these forms seems to need to be inanimate, or at least 'controllable' to get a felicitous result. For example, if the bird has been released from a cage, or has been frightened off a branch by the subject, then the 'bird' is fine as a direct object in (9) and (10). Note that this fact is the same regardless of whether *-aa* or *-vaa* is used as a causativizer.

(8) patang/chiṛiyaa uṛ rahii hai
kite/bird fly PROG.F be-PRES.SG
'The kite/the bird is flying.'

(9) Anjali patang/?chiṛiyaa uṛaa rahii hai
Anjali kite/bird fly PROG.F be-PRES.SG
'Anjali is flying a kite/?a bird.'

(10) Anjali patang/?chiṛiyaa uṛvaa rahii hai
Anjali kite/bird fly PROG.F be-PRES.SG
'Anjali is flying a kite/?a bird.'

If we take an unergative verb like 'laugh', an animate object is allowed, and causativization with both *-aa* and *-vaa* is once again possible. The difference in meaning is that in the (b) sentence, Anjum must have tickled the child or told some joke to make the child laugh, while in the (c) sentence Anjum could have got someone else to actively amuse the child.

(11) a. bacca hãs-aa
child laugh-PERF.M
'The child laughed.'
b. Anjum-ne bacce-ko hãs-aa-yaa
Anjum-ERG child-ACC laugh-aa-PERF.M
'Anjum made the child laugh (with his tickling, or funny stories).'
c. Anjum-ne bacce-ko hãs-vaa-yaa
Anjum-ERG child-ACC laugh-vaa-PERF.M
'Anjum made the child laugh (by taking him to an amusement park).'

So far, we have seen that both the *-aa* suffix and the *-vaa* suffix attach to intransitive roots, albeit with slightly different semantics. If we were to assume that the *-vaa* suffix attaches to an already transitivized form, we would have to argue for a rule of allomorphy that spells out single causativization as *-aa* and double causativization as *-vaa*. [6]

2.2. Causativisation of 'Basic' Transitives

We have looked intransitive roots so far, of both the unaccusative and unergative variety. These intransitive roots constitute the majority of the root types in Hindi/Urdu. However, there is another class of roots that come in transitive/intransitive pairs, where the intransitive version looks like it is related to the transitive version by vowel shortening in the stem. This was a systematic alternation in a much earlier stage of the language, but is no longer productive (Saksena 1982b,Masica 1991). The following table is a subset of the relevant forms, adapted from Bhatt (2003). According to Bhatt (2003), the intransitive members of this class always pass the tests for unaccusativity.

[6] Masica (1991) points out that there are some Indo-Aryan languages where a single causative morpheme is found, which can be 'doubled' to get the effects of 'indirect' causation (e.g. Marathi). He further asserts that the languages in which there are two distinct morphemes which do not stack, as in Hindi/Urdu, the 'indirect' causative is historically derived from a doubled 'direct' causative. However, Butt (2003) evaluates this claim with respect to Hindi/Urdu and finds no evidence for such a derivation. Rather, both allomorphs of the causative seem to be attested at an equally early stage. I therefore conclude that there is no historical evidence for the indirect causative in *-vaa* being the double causative of *-aa*. Of course, even if there were such evidence, it would not necessarily carry over to the synchronic state of the language.

(12)

Intransitive	**Transitive**	**Gloss**
bãṭ-naa	bããṭ-naa	'be divided/divide'
bandh-naa	baandh-naa	'connect'
chhid-naa	chhed-naa	'be pierced/pierce'
dhul-naa	dho-naa	'be washed/wash'
gir-naa	ger-naa	'fall/cause to fall'
ghir-naa	gher-naa	'be surrounded/surround'
kaṭ-naa	kaaṭ-naa	'be cut/cut'
khul-naa	khol-naa	'open'
lad-naa	laad-naa	'be loaded/load'
mar-naa	maar-naa	'die/kill'
nikal-naa	nikaal-naa	'come out/ bring out'
pal-naa	paal-naa	'be brought up/ bring up'
sudhar-naa	sudhaar-naa	'improve'
ubal-naa	ubaal-naa	'boil'
ujar-naa	ujaar-naa	'be destroyed/destroy'
utar-naa	utaar-naa	'get down/bring down'

An interesting question to ask about this alternation is whether both forms need to be stored or whether one can be systematically derived from the other. If the forms are synchronically derivationally related at all, the question is whether the transitive is derived from the intransitive by vowel lengthening, or whether the intransitive is derived from the transitive by vowel shortening. Bhatt (2003) argues that since the vowel shortening correspondence reduces the number of distinctions found in the long forms, it is better to derive the intransitive from the transitive (see Bhatt 2003 for data and discussion). Thus, the forms are either both basic in the modern language, *or* the intransitive is derived from the transitive. In either case, we have a plausible set of candidates for base (underived) transitive roots. In fact, they are the only base transitives in Hindi/Urdu once the ingestives and perception verbs are put aside (see next subsection).

The initial expectation, if *-vaa* is indeed an 'indirect' or 'second' causative, is that it should attach to transitive roots, and that *-aa* should not (since by hypothesis, transitive verbs already contain a 'causer', or even an agent). However, testing these roots with *-aa* and *-vaa* augmentation involves a further fatal complication: both of these suffixes induce vowel shortening on the root— the very same vowel shortening relation that reflects the transitive-intransitive alternation. This means that in principle, it is very difficult to tell whether the suffix(es) in question are attaching to the transitive stem with vowel shortening, or to the intransitive stem directly. Bhatt (2003)

considers this question with respect to a handful of alternations where the final consonant changes in addition to vowel shortening (13).

(13)

Intransitive	**Transitive**	**Gloss**
chhuuṭ.-naa	chhoṛ-naa	be free/free
phaṭ-naa	phaaṛ-naa	be torn/tear
phuuṭ-naa	phoṛ-naa	be burst/burst
tuuṭ-naa	toṛ-naa	break

According to Bhatt, *-vaa* causatives for these verbs preserve the consonant in the transitive stem, not the intransitive stem (14).

(14)

Intransitive	**Transitive**	**-vaa form**
chhuuṭ-naa	chhor.-naa	chhuṛ-vaa-naa
phaṭ-naa	phaaṛ-naa	phaṛ-vaa-naa
phuuṭ-naa	phoṛ-naa	phuṛ-vaa-naa
tuuṭ-naa	toṛ-naa	tuṛ-vaa-naa

However, Bhatt also points out two additional verbs, where the morphophonology suggests the opposite, i.e. where it looks like the *-vaa* form is built on the basis of the intransitive stem.

(15)

Intransitive	**Transitive**	**-vaa form**
bik-naa	bech-naa	bik-vaa-naa (be sold/sell)
simaṭ-naa	sameṭ-naa	simaṭ-vaa-naa (be collected/collect)

Thus, it is very difficult to see any difference in distribution between the *-aa* causative and the *-vaa* causative in this class. Even if it were systematically true that the *-vaa* causative attaches to transitive stems and the *-aa* causative to intransitive stems, it would be impossible to tell because of vowel shortening. There are also unsystematic gaps where not all forms have both *-aa* and *-vaa* causatives, together with a lot of speaker and dialect variation. In particular, testing the morphologically irregular forms with *-aa* causative and *-vaa* causative minimal pairs proves impossible, and it is unclear whether this is accidental or not.

However, at least one thing is clear. There are many stems/roots in this class which occur with both *-aa* and *-vaa* causatives, even within the same dialect. When they do so, speakers find it very difficult to say what the semantic difference is between the two morphological causatives (16) (data adapted from Saksena 1982b).

(16) (a) Paoda kaṭ-aa
plant cut-PERF.M.SG
'The plant got cut.'
(b) Anjum-ne paoda kaaṭ-a
Anjum-ERG plant cut-PERF.M.SG
'Anjum cut a/the plant.'
(c) mãĩ-ne peṛ kaṭ-aa-yaa
I-ERG tree cut-*aa*-PERF
'I had the tree cut.'
(d) mãĩ-ne peṛ kaṭ-vaa-yaa
I-ERG tree cut-*vaa*-PERF
'I had the tree cut.'

Note that in these cases, both the *-aa* causative and the *-vaa* causative have the same valency as the transitive form. In neither case do we have the addition of an obligatory argument. In terms of the meaning difference between the simple transitive sentence in (b) above and the causatives in (c) and (d), *both* causatives have more of a flavour of indirect causation and are very difficult to distinguish from each other.

2.3. Causativization of 'Ingestives'

With one small class of transitive verbs, causativization is possible with the *addition* of a required argument, to create a derived 'ditransitive' (Bhatt 2003). These verbs form a coherent class that one might characterize abstractly as 'ingestive' (whether physical or experiential), and show distinctive argument structure properties across Indo-Aryan (see Masica 1976). According to Shibatani (2002), this class of verbs is also significant in a crosslinguistic perspective, isolated as early as Nedjalkov and Silnitsky (1973) as a special class of transitives which is more likely to take a causative morpheme than other transitives. Indeed, these verbs are the only clear case of a transitive verb being causativized in Hindi/Urdu, and we get the clear addition of a causer argument to the original argument structure of the ingestive verb.

(17)

Ingestive	**Ditransitive**	**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'
pakaṛ-naa	pakṛ-aa-naa	'hold, catch/hand, cause to hold'
paṛh-naa	paṛh-aa-naa	'read/teach'
pii-naa	pil-aa-naa	'drink/cause to drink'
samajh-naa	samjh-aa-naa	'understand/explain'
siikh-naa	sikh-aa-naa	'learn/teach'
sun-aa	sun-aa-naa	'hear/tell'

In the table, the ditransitives are given in their *-aa* form, but in fact, these verbs form ditransitives with *-vaa* as well, with more of an 'indirect' causation flavour, as shown in examples (18) below.

(18) a. rita-ne angur khaa-e
rita-ERG grape eat-PERF.M.PL
'Rita ate some grapes'

b. rita-ne sima-ko angur khil-aa-e
rita-ERG sima-DAT grape eat-*aa*-PERF.M.PL
Rita fed Sima some grapes.'

c. kala-ne sima-ko angur khil-vaa-e
Kala-ERG sita-DAT grape eat--*vaa*-PERF.M.PL
'Kala made Sima eat some grapes. '

(from Butt 2003)

Thus, the ingestive class is clearly special, but in terms of distribution does not distinguish between the *-aa* suffix and the *-vaa* suffix.

2.4. Summary

In general, then, *-vaa* and *-aa* attach to what appear to be the very same root/stems, with base transitives and intransitives of both kinds combining with both suffixes. There is no difference in the number of obligatory arguments found with *-aa* or *-vaa*, and no apparent difference in the classes of verb stem that they can apply to.

(19)				
	Base unaccusative	*ban*	*ban-aa*	*ban-vaa*
		'get made'	'make'	'have s.t. made'
	Base unergative	*hãs*	*hãs-aa*	*hãs-vaa*
		'laugh'	'make laugh'	'have (s.o.) laugh'
	Base 'ingestive'	*paṛh*	*paṛh-aa*	*paṛh-vaa*
		'read'	'teach'	'have s.o. study'
	Base transitive	*kaaṭ*	*kaaṭ-aa*	*kaaṭ-vaa*
		'cut s.t.'	'have (s.o.) cut s.t.'	'have (s.o.) cut s.t.'

As Saksena (1982) points out as well, there appears to be no difference in either degree of productivity (both are extremely productive) or in the tendency to have idiomatic conventionalized meanings. This table repeated from Saksena (1982b) shows a few cases of idiomatic transitives for both *-aa* and *-vaa* forms.

(20)	**Root (intr)**		**Idiomatic Transitive**	
	bul-naa	'speak'	*bul-aa-naa*	'call someone'
	pak-naa	'ripen'	*pak-aa-naa*	'cook'
	paṭ-naa	'get along'	*paṭ-vaa-naa*	'lay a floor/roof'
	le-naa	'take'	*li-vaa-naa*	'buy s.t. for s.o.'

There seems to be no evidence that one of these suffixes is more 'lexical' than the other in terms of productivity or semantic transparency. Regardless of how one wants to interpret these notions, whether in terms of a difference in module or a difference in morphological or syntactic cycle, the point is that both suffixes seem to behave in very similar ways with respect to these criteria.

Thus, we have no evidence from morphology, semantic entailments, or distribution that the *-vaa* causative embeds the *-aa* causative, and we have no evidence that one of the suffixes is more 'in the lexicon' than the other.

Shibatani (2002) claims that across languages, there is a general correlation (or implicational hierarchy) between morphological transparency of the causativization strategy and the verbal hierarchy below:
inactive/unaccusative intransitives > active/unergative intransitives > ingestive transitives > transitives
The claim is that lexical causatives and unproductive or idiosyncratic morphological causativization usually represent simpler or 'easier' causativizations (i.e. the top part of the verbal hierarchy above), while productive morphological or periphrastic devices are employed when the causativization is more unusual or difficult to conceptualize. The interesting thing

about Hindi/Urdu in this regard is that we are dealing neither with completely opaque lexical causativization or completely analytic periphrastic constructions—- there are two morphological suffixes here, and they both appear to be equally 'productive'. If Shibatani (2002) is right about his correlation between morphological transparency and productivity with respect to verb type, then both the *-aa* and the *-vaa* suffixes might be seen to satisfy that expectation unproblematically.

However, there is one important fly in the ointment. The usual assumption is that the intuitive difference between 'direct' and 'indirect' causation also correlates with morphological transparency and distribution with respect to verb type. However, this is precisely the difference between the meanings of *-aa* causativization and *-vaa* causativization in Hindi/Urdu, where we have seen no clear difference in productivity or distribution. Of course, this generalization or tendency stated in terms of an implicational hierarchy crosslinguistically is not actually contradicted by the Hindi/Urdu morphemes, but it does mean that in any synchronic analytic account of these facts, the 'direct' vs. 'indirect' causational semantics must be logically independent of internal morphemic structure. In fact, Hindi/Urdu is in some sense the perfect language for which to formulate a theory about direct vs. indirect causation since we have already controlled for differences in morphological expression.

The intuition of 'indirect' causation appealed to in some of the meaning descriptions given so far in this paper is notoriously hard to express formally (Nedjalkov and Silnitsky 1973, Masica 1976, Kachru 1976, Rice 2000, Dixon 2000, Shibatani 2002). In the literature on Hindi/Urdu, it is often indistinguishable from the judgement that the *-se*-marked adjunct can be interpreted as an 'intermediate agent'. The intermediate agent interpretation is an important diagnostic, but to my knowledge the data for all the different verb types have not been systematically presented in the literature. In the next section, I provide the results of my own informant work on the interpretation of *-se* marked adjuncts with all the different verbal forms and suffixation possibilities discussed above. Assuming that the interpretation of the *-se* adjunct as an intermediate agent is diagnostic of something, the important thing to establish is *what* it is diagnostic of. I will show that the traditional idea that it is sensitive to the existence of a 'demoted agent' in the argument structure of the root does not work.

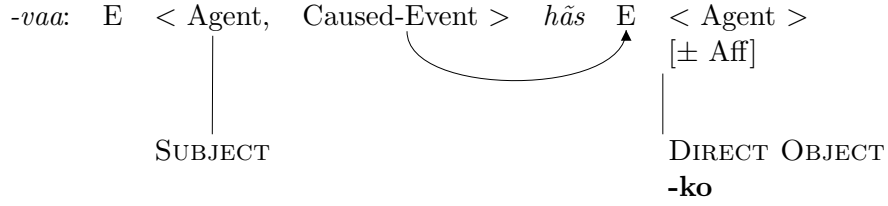
3. *-SE* and the 'Intermediate Agent'

In the traditional analysis, based on the idea of an argument structure grid with thematically specified participants, the story goes as follows. The base verb has either a transitive or intransitive argument structure frame, and the causative morpheme has a single causer argument and an event position.

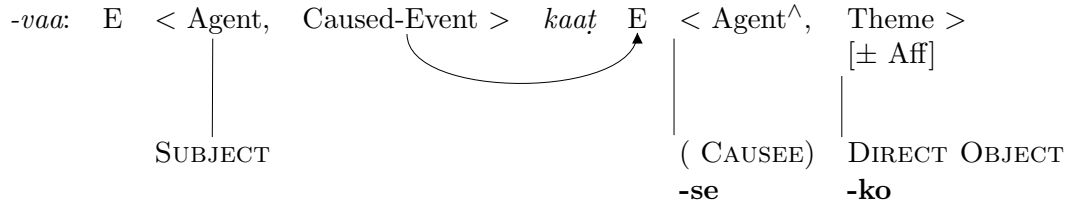
(21) (i) *-vaa*: E < Agent, Caused-Event >
(ii) *hãs-* 'laugh': E < Agent >
(iii) *ban-* 'be made': E < Theme >
(iv) *kaaṭ-* 'cut': E < Agent, Theme >

When the two combine (by assumption in these theories, in the Lexicon), the Caused-event internal argument of the causative morpheme identifies with the event position of the embedded verb. One argument of the embedded verb is interpreted as 'affected' and the linking rules will mark this with *-ko* in Hindi/Urdu and link it to the direct object position. The Agent/Causer argument introduced by the causative morpheme is linked to the subject, and any left over argument must be demoted (here, the agent of the embedded verb) and realised as a *-se* marked adjunct.[7]

(22) **Lexicon: Cause + Intransitive Verb**



(23) **Lexicon: Cause + Transitive Verb**



For this analysis to capture the difference between the *-vaa* causatives on the one hand, and *-aa* causatives on the other which do not seem to

[7]This analysis is loosely adapted from the one found in Alsina and Joshi 1993 for causativization in Marathi in a lexicalist (LFG) formalism.

consistently allow intermediate agent expression, we need to establish two things: (i) the *-vaa* causative morpheme must attach only to transitives (and possibly unergatives), while the *-aa* causative morpheme must attach to intransitives only. This means that we must argue that when *-vaa* attaches to an unaccusative like 'be made' , it is really attaching to the transitivized version even though the morphology does not show this. Conversely, we would need to argue that the *-aa* forms never attach to a transitive stem themselves, although no difference in form or interpretation is found when *-aa* or *-vaa* attach to a 'transitive' like *kaaṭ-*'cut'. As I have tried to show in detail in the previous section, there is in fact no independent evidence that *-aa* and *-vaa* attach to different verb types.

Instead, a different view of the matter emerges if we take the morphology and the distribution seriously, and start from the fact that both *-aa* and *vaa* are structure building morphemes that add external arguments, and that they can both attach to all kinds of roots. However, we still need to look more closely at the distribution of the *-se*-marked adjunct with all the different verb types in their different causative forms.[8]

In all of the transitive forms I consider in this section, a *-se* suffix on an inanimate DP can always be interpreted as a true *instrument*. The data I present here concerns specifically the intermediate agent reading of an animate DP marked with *-se*.

With base transitives (i.e. those not formed by causativization), a *-se*-marked adjunct can only be interpreted as an instrument and not as an intermediate agent. Thus, in (24) and (25) below, the sentences for the simple transitive and the transitive ingestive are ungrammatical/infelicitous with an animate marked with *-se*.

(24) *Base Transitive*
Anjum-ne (*Saddaf-se) peṛ kaaṭ-aa
Anjum-ERG tree cut-PERF.M.SG
'Anjum cut the tree.'

(25) *Ingestive Transitive*
rita-ne (*Saddaf-se) angur khaa-e
rita-ERG grape eat-PERF.M.PL
'Rita ate some grapes'

[8]I thank Miriam Butt, Tafseer Khan Ahmed and Rajesh Bhatt for being the patient informants for this section of the paper. All surviving misrepresentations and misunderstandings are self-created.

When we turn to causatives formed with *-aa*, we see the first difference from the standard pattern assumed in the lexical argument structure analysis. While unaccusatives transitivized using *-aa* systematically resist the intermediate agent interpretation for all speakers, as expected, the unergatives, ingestives and transitives all allow it consistently for some speakers, though not for others. In the transitive root, it is plausible that there is a demoted agent involved. However, the unergatives and ingestives do not have a suppressed agent— their external argument is expressed in direct object position in the *-aa* causative.

(26) *AA-Causative Based on Unaccusative Root*
Anjum-ne (*mazdurõ-se) makaan ban-aa-yaa
Anjum-ERG house make-*aa*-PERF.M.SG
'Anjum built a house.'

(27) *AA-Causative Based on Unergative Root*
Anjum-ne (% masxaraa-se) Saddaf-ko hãs-aa-yaa
Anjum-ERG (clown-INSTR) Saddaf-ACC laugh-*aa*-PERF.M.SG
'Anjum made Saddaf laugh (% by means of the clown).'

(28) *AA-Causative Based on Base Transitive Root*
Anjum-ne (% Saddaf-se) peṛ kaT-aa-yaa
Anjum-ERG (Saddaf-INSTR) tree cut-*aa*-PERF.M.SG
'Anjum cut the tree/ % had Saddaf cut the tree.'

(29) *AA-Causative Based on Ingestive Transitive Root*
Anjum-ne (% Saddaf-se) Ram-ko khaanaa khilaayaa
Anjum-ERG Saddaf-INSTR Ram-ACC food eat-*aa*-PERF.M.SG
'(%)Anjum had Saddaf feed Ram food.'

Turning now to the causatives formed with *-vaa*, all speakers accept an intermediate agent interpretation for all base stems, even for the unaccusatives causativized in *-vaa*. With unambiguously unaccusative roots such as *ban* which has no transitive version except through causativization itself, there is obviously no demoted agent in the base verb, by hypothesis, and yet the intermediate agent reading is available. With the unergatives and ingestives, the original external argument is not suppressed, but interpreted as 'affected' and realised in object position.[9] Only with transitives is there an actual 'demoted agent', i.e. an agent argument that should plausibly have

[9]A reviewer asks how it is that an unergative verb can be causativized at all (the same question could be asked of the transitives). The point is that the morphology in question

been in the argument structure of that base verb but which is not realised in the *-vaa* causativized form.

(30) *VAA-Causative Based on Unaccusative Root*
Anjum-ne (mazdurõ-se) makaan ban-vaa-yaa
Anjum-ERG (labourers-INSTR) house make-*vaa*-PERF.M.SG
'Anjum had a house built (by the labourers).'

(31) *VAA-Causative Based on Unergative Root*
Anjum-ne (masxaraa-se) Saddaf-ko hãs-vaa-yaa
Anjum-ERG (clown-INSTR) Saddaf-ACC laugh-*vaa*-PERF.M.SG
'Anjum made Saddaf laugh (by means of the clown).'

(32) *VAA-Causative Based on Base Transitive Root*
Anjum-ne (Saddaf-se) peṛ kaṭ-vaa-yaa
Anjum-ERG (Saddaf-INSTR) tree cut-*vaa*-PERF.M.SG
'Anjum had the tree cut by Saddaf.'

(33) *VAA-Causative Based on Ingestive Transitive Root*
Anjum-ne (Saddaf-se) Ram-ko khaanaa khil-vaa-yaa
Anjum-ERG (Saddaf-INSTR) Ram-ACC food eat-*vaa*-PERF.M.SG
'Anjum had Saddaf feed Ram food.'

To reiterate, the lexical argument demotion analysis predicts a one to one correlation between having an implicit agent left over in the base verb and allowing an intermediate agent reading of the instrumental adjunct. As the table below shows, this correlation fails for the cells of the table that fall outside the two most common patterns of base unaccusative plus *-aa*, and base transitive plus *-vaa*. Note that the table below does *not* adopt the hypothesis that the *-vaa* causative is attaching to covertly transitivized forms in B(i) of the table, neither does it assume that the *-aa* suffix is really attaching to an intransitive version in A(iii). I have argued that there is no independent reason for these assumptions, but even if they were made, it would not help us with the mismatches in B(ii) and B(iv), or for the *-se* permissive dialect in A(iii).

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does attach to these forms, and the valency increases by one. The concept of 'laughing' in the unergative example does not change, but what is emphasized in the morphologically derived form is the fact that somebody external triggered the internally caused event of 'laughing' in the 'laugher', by directly affecting the 'laugher'. This is a perfectly coherent interpretation, and it underlines the fact that certain entailments over event participants depend on the syntactic context and not just on the lexical root.

(34)

Verb Type	Intermediate Agent *-se*	Demoted Agent in Root
Base Trans	NO	NO
A. *aa*-Causative		
(i) **of unacc.**	NO	NO
(ii) **of unerg.**	%	NO
(iii) **of trans**	%	YES
(iv) **of ingestive**	%	NO
B. *vaa* -Causative		
(i)**of unacc.**	YES	NO
(ii)**of unerg**	YES	NO
(iii)**of trans**	YES	YES
(iv)**of ingestive**	YES	NO

The important thing to realise about this pattern is that it seems to be always possible to get the intermediate agent reading once the *-vaa* suffix is used, *regardless of verb type*. In other words, it does not seem to matter what the original 'argument structure' of the uncausativized stem was, or whether there was an original agent or not, the intermediate agent interpretation is uniformly available once that form is augmented with *-vaa*. On the other hand, the *-aa* forms allow this reading for some speakers only with a subset of verbs—- the ones that have original underlying external arguments. For these speakers, the readings available for causatives in *-aa* and *-vaa* are hard to distinguish for base transitives like 'cut' and 'eat'.

3.1. *-SE* in Passives

There is independent evidence that a demoted agent does not correlate with the presence of a *-se*-marked adjunct. In the passive of a simple transitive verb, a *-se* adjunct with the intended reading is not possible.[10]

(35) *Passive of a Transitive Verb*[11]

peṛ	(*anjum-se)	kaaṭ-aa	gay-aa
tree		cut(trans)-PASS	go-PERF.M.SG

'The tree was cut.'

[10]The *-se*-marked argument here can be interpreted as the holder of an ability. I will not explicitly address the abilitative reading of *-se* here. But see the conclusion of this paper for some speculations.

[11]The passive in Hindi/Urdu is formed by using the light verb *ja*-'go' shown here together with the perfective participial form of the root (formed with a zero suffix). See Bhatt 2003 for a general descriptive overview.

Similarly, if one passivizes the *-aa* causativized version of a base intransitive, the implicit agent cannot be expressed with the *-se* adjunct.

(36) *Passive of AA-Causative of Unaccusative Verb*
makaan (*anjum-se) ban-aa-yaa ga-yaa
house build-*aa*-PASS go-PERF.M.SG
'The house was built.'

Speakers prefer to use a different postposition *dwaaraa* in expressing the agent usually translated by a *by*-phrase in English. The *dwaaraa* postpositional phrase is possible for those speakers in sentences (36 and (35) above. Thus, the *dwaaraa* phrase is the best candidate for a translation of the *by*-phrase in English as found in passives.

(37) *Passive of a Transitive Verb with Agent Adjunct*
peṛ anjum-ke dwaaraa kaaṭ-aa gay-aa
tree anjum-OBL BY cut(trans)-PASS go-PERF.M.SG
'The tree was cut by Anjum.'

What then is the *se*-phrase, and why does it not work to express the demoted agent in a passive? The pattern seen in the last section indicates that the *se*-adjunct expresses an intermediate agent in the presence of *-vaa* morphology. Thus, the presence of a *-se*-marked adjunct in sentences such as (38) below is due to the presence of *-vaa* and not of passive morphology.

(38) *Passive of VAA-Causative of Transitive Verb*
Ram-se peṛ kaṭ-vaa-yaa ga-yaa
Ram-INSTR tree cut-*vaa*-PASS go-PERF.M.SG
'The tree was cut through Ram's actions.'

The *-ke dwaaraa* adjunct can even be added to the passivized *-vaa* causative in (37), in addition to the *-se*-marked adjunct (39).

(39) Ram-ke -dwara Anjum-se peṛ kaṭ-vaa-yaa ga-yaa
Ram-OBL BY Anjum-INSTR tree cut-*vaa*-PASS go-PERF.M.SG
'The tree was caused to be cut by Ram, by Anjum.'

The conclusion I draw from this is that the presence of an intermediate agent reading for the *-se*-marked adjunct is independent of passivization, further supporting the idea that it is not correlated with the existence of an implicit agent in the structure. The group of readings covered by the

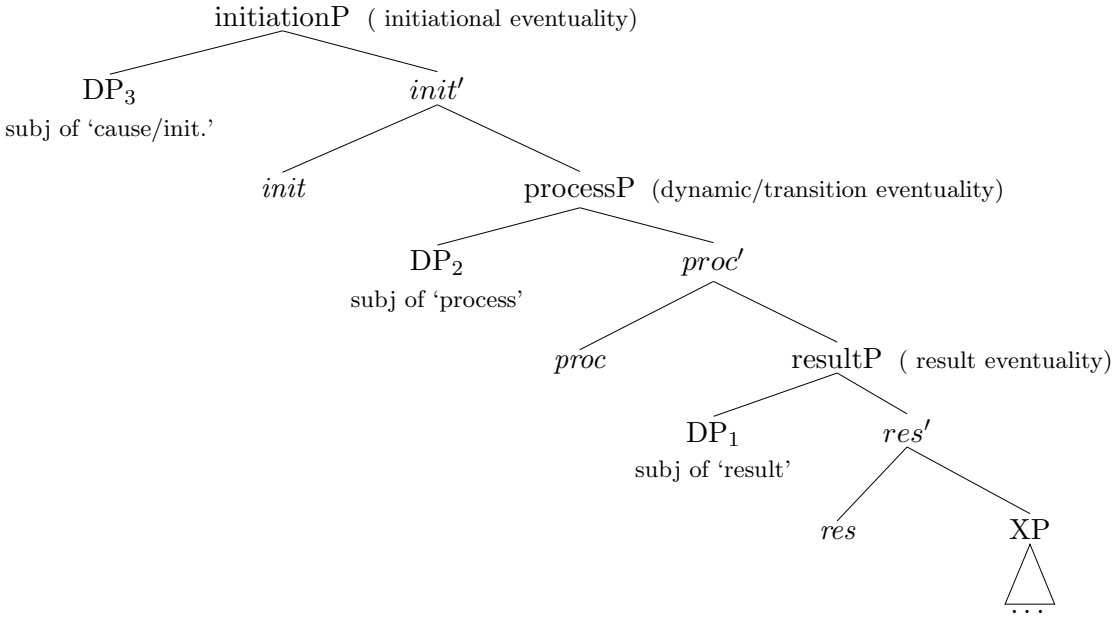
-se-marked phrase is as follows: instrumental; modal subject of an inability passive (see Bhatt 2003 for details; intermediate agent of certain causatives. I conclude that marking by *-se* is at least constrained to contexts where the participant in question is *not in volitional control* of the event, but is somehow facilitating. In the next section, I argue more specifically that this kind of participant is licensed in a particular event structure configuration.

4. Indirect Causation and Subevental Decomposition

Given the generalizations of meaning and distribution established above, we are left with two central analytical questions: firstly, what is responsible for the meaning difference of 'indirect' vs. 'direct' causation as expressed by the *-vaa* and *-aa* forms respectively; and secondly, the related question of what licenses the adjunct in *-se*. Any successful analysis must account for the direct vs. indirect contrast (and the fact that it occurs only with certain verbal stems) without invoking a biclausal causative structure. Further, the demotion of an external argument cannot be the source of the felicity of the *-se*-marked adjunct in the intermediate agent reading.

To tackle this problem, I will be assuming the system of verbal decomposition found in Ramchand (2008), where the functional sequence corresponding to V is put together from a recursive embedding of eventuality descriptors, whose specifiers are systematically interpreted locally as the 'thematic' element of each sub-description. The aspect of this system that will play an important role in the analysis is that one single natural and minimal relation between subevents ('cause/leads to') accounts for the internal event complexity.

(40)



This means, intuitively, that causation is the semantic relational 'glue' that relates the initiational subevent to the processual one, *as well as* the processual subevent to the resulting subevent. There are thus two locuses of causation in a maximally complex event.

As far as the specifier positions in this structure are concerned, they are interpreted according to the following structural natural classes of entailment. INITIATORS are the individuated entities who possess the property denoted by the initiational subeventuality, which leads to the process coming into being. UNDERGOERS are individuated entities whose position/state or motion/change is oriented with respect to some GROUND/PATH. UNDERGOERS are 'subject' of process, while PATHS are complements of process. RESULTEES (or 'subjects' of result) are the individuated entities whose state is described with respect to the resultative PROPERTY/GROUND. GROUNDS of Result express an inherent non-gradable property which describes the result state.

Given the correlations between structure and interpretation given above, the following composite roles can also be constructed, if a single DP moves (or is remerged) in more than one of the relevant structural positions. The UNDERGOER-INITIATOR is a composite role which arises when the same argument is the holder of initiational state *and* holder of a changing property homomorphic with the event trace of the *proc* event. The RESULTEE-

UNDERGOER is a composite role which arises when the same argument is the holder of a changing property homomorphic with the event trace of the *proc* event, *and* the holder of the result state.

In describing the Hindi/Urdu patterns of morphological causativization, I will be assuming that the morphology of the alternation in Hindi/Urdu indicates a structure building analysis where the causative/transitive version is structurally larger than the intransitive version. Both the additive nature of the morphology, and the addition of subevents (when it occurs) support the structure building account in this case. There is of course an ongoing debate on this topic for the causative-inchoative alternation in English and Romance, and there is much recent work claiming that, at least for those languages, the causative alternation is due to productive detransitivization processes in the 'lexicon', prior to lexical insertion (Levin and Rappaport Hovav 1995 Reinhart 2002). While the morphological evidence is lacking in English, it seems to favour detransitivization in Romance for some verb types at least, but the evidence in Hindi/Urdu unambiguously indicates a causativizing derivation. Although I am employing a constructivist framework here, I do not assume that all causative alternations in all languages should be analysed the same way, the claims I will make in what follows will be directed to the Hindi/Urdu situation. (See Haspelmath 1993 for a typological study of the variability in this regard with respect to morphology and causativization/decausativization).

With regard to the lexicalist vs. constructivist debate, I will implement the analysis in the constructivist framework of Ramchand 2008 which is in some sense a hybrid between the two systems in that all relations and derivations are syntactically expressed, but the lexical item does possess some syntactic information in the form of category features. This makes the system employed here different from the acategorial roots of Distributed Morphology (Harley and Noyer 2000, Marantz 2001), but stops short of encoding argument structure or argument structure manipulations in a lexical module. The fact that the different verb classes in Hindi/Urdu behave differently with respect to the causativization phenomena being investigated here, is a clear indication that roots have different classificatory properties. In a bare roots view of the lexicon, these properties would have to be captured by encoding selectional properties (e.g. as a memorized contextual context for insertion (see Harley and Noyer 2000)), whereas in this system they are directly encoded in terms of the category features that the lexical root is associated with, and whose encyclopedic content they can 'identify'. I summarize the view of the relation between the root's syntactic features and the syntactic structure it occurs in in (41) below.

(41) **Assumptions Concerning Lexical Attachment/Insertion**
(i)There is no argument structure module in the lexicon; the only syntactic information stored with lexical roots is a multi-set of category features (i.e. *init, proc, res* in this case).
(ii) Structure must be licensed by lexical content in order to satisfy full interpretation.
(iii) Lexical category features may, in certain circumstances remain 'unattached', or, 'underassociated'.

Assumption (iii) above needs further comment. While (ii) says that structure *must* be connected to a particular lexical item to be licensed/built at all (ii), (iii) says that the lexical item is not forced to 'use' all of its features when lexicalizing syntactic structure. This claim is not equivalent to 'optionality' of all category features, since in Ramchand (2008) there are constraints on underassociation that are assumed to play a role when a syntactic structure is lexicalized. The first important constraint is that a lexical item may not lexicalize a discontinuous set of heads in the functional sequence, simply because it would be non-linearizable.[12] The other constraint on underassociation proposed in Ramchand (2008) is that an underassociated feature in a lexical entry must AGREE with a licensed feature of the same time in the phrase structure, and that the encyclopedic content of the underassociated feature is still accessible to the semantics and must conceptually unify with the other encyclopedic content of the clause.

While some of this technology might seem somewhat exotic, it is not the purpose of this paper to argue for the details of a particular implementation. Rather, I use this system to concretize an underlying intuition, which is that the interpretation of the *-se*-marked adjunct is sensitive to the subevents represented in the syntactic structure, and to whether there are implicit subevents (corresponding to underassociated category features) present or not. Implicit subevental structure will thus be argued to give a better representation of the patterns in the data than the idea of an implicit or demoted agent in a verb's argument structure.

To make the argument, I first make explicit what I take to be the lexical representations of the different types of root found in Hindi/Urdu. To understand how these verbs behave we need to note in the lexicon which

[12]I am assuming in what follows that lexical items do not necessarily lexicalize terminal nodes but 'span' a number of heads in the structure, in the sense of Williams (2007)), or lexicalize constituent chunks in the sense of Caha (2007). However, for the data I discuss here, this is equivalent to head to head movement under adjacency, or REMERGE of heads. The reader is invited to think of the implementation in whichever way she finds most intuitive.

subevental features they can lexically identify, and also whether the specifiers of the projections so built are filled by MERGE or MOVE (in other words, are the subevental heads 'raising' heads or not). In the lexical representations given below, a 'raising' head is annotated with an asterisk.

(42) **Verb Classes in Hindi/Urdu**:
Unergatives- [*init**, *proc*]
(1 argument: INITIATOR-UNDERGOER)
Unaccusatives- [*proc**, *res*]
(1 argument :UNDERGOER-RESULTEE)
Transitives-[*init, proc*]
(2 arguments :INITIATOR and UNDERGOER)
Ingestives- [*init**, *proc, N*]
(2 arguments: INITIATOR-UNDERGOER and PATH/RHEME)

An unaccusative verb does not contain an outer causing subevent, it is lexicalized as describing a process which leads to a resulting state; the single argument of an unaccusative verb is the UNDERGOER of the change and the holder of the result state (RESULTEE). An unergative verb contains an outer causing subevent, but it has only a single argument which is the UNDERGOER of the change as well as the INITIATOR of it. A normal transitive verb also has both a causing outer event and a process, but the arguments of each subevent are distinct. The ingestive verbs are intermediate in the sense that they are like the unergatives in having a single argument filling the INITIATOR and UNDERGOER positions, but are transitive because they also have a nominal complement to the *proc* head which co-describes the path of change. (See Ramchand 2008 for a more detailed exposition of different verb types in English and the diagnostics used to classify them.)

With respect to some facts, base verb type is irrelevant for the behaviour of the derived causative forms: all verb types combine productively with both suffixes; all forms in *-vaa* allow the *-se*-marked adjunct to be interpreted as an intermediate agent regardless of base verb type. With respect to other facts, verb class makes a difference: for *-aa* causativization, a *-se* marked adjunct can be interpreted as an intermediate agent with base transitives, unergatives and ingestives for a subset of speakers, but never with base unaccusatives; causativization (with either suffix) augments the argument structure of base verbs with a causer in the case of unaccusatives, unergatives and ingestives, but does not add an argument with base transitives, which remain transitive after suffixation.

4.1. Direct vs. Indirect Causation Without Embedding

The next piece of the puzzle involves the capturing direct vs. indirect causation without actual clausal embedding, and in particular, giving a proposal for the lexical entries of the *-aa* suffix and *-vaa* suffixes themselves. The guiding intuition in this section will be the strategy of representing the distinction between indirect and direct causation in terms of the different relations between subevents that they express, rather than directly in terms of thematic role differences. Since participant relations are linked to subevental predications, argument structure and event structure go hand in hand in this system. Thus, it is possible to characterize indirect causation primarily in terms of the participants, as the following quote from Masica (1976) shows, cited in Shibatani (2002).

> "A causative verb denotes an action that calls forth a particular action or condition in another person or object. This causation may be principally of two kinds, "distant" and "contactive". In the latter, the agent does something to the object, bringing about its new condition by direct contact; in the former he makes use of an intermediary agent and serves only as the "instigator" of the act." (Masica 1976 pg 55)

However, one can also express the difference in terms of the closeness of the causal chain linking the different subevents, as Nedjalkov and Silnitsky (1973) do in the next quotation (also cited in Shibatani 2002).

> "In the case of distant causation there is a mediated relation between the causing subject and the caused state in which a greater or lesser independence of the cause subject is actualized in its initiation (or failure to make an initiation) of the states s_j. This mediation often appears in an actualization of a certain time interval between the causing s_i and caused (s_j) states." (Nedjalkov and Silnitsky 1973, pg 10)

The claim I make in this paper is that the subevental characterization is the fundamental one, from which the argument structure properties derive, not vice versa. The quotation from Nedyalkov and Silnitsky above is in fact strikingly similar to a proposal by Levin and Rappaport-Hovav (1999) concerning the difference between direct and indirect resultatives. Specifically, Levin and Rappaport-Hovav (1999) correlate the idea of 'direct-ness'

with a kind of temporal dependence between the two relevant subevents, although they use the term 'causational' only for the 'indirect' or temporally independent subevents.

- *Indirect*
  A causative event structure consisting of two subevents formed from the conflation of temporally-independent events

- *Direct*
  A simple event structure formed from the conflation of two temporally-dependent "coidentified" events.

(Levin and Rappaport-Hovav 1999 pp 63)

It is relatively easy to translate how the intuitions expressed above would play out in the formalism used in this paper. In the verbal decomposition proposed here, there is a causal relation between the initiational subevent and the process, and also between the process subevent and the result. The question is how the temporal dependence/independence of those causal relations is established. The idea would be that an independent temporal relationship between the process event and the 'result' is equivalent to indirect, or (potentially) mediated causation. Whereas a dependent, or overlapping temporal relationship corresponds to direct causation.

Levin and Rappaport-Hovav (1999) note that direct resultatives tend to arise when the verb itself is also telic as in (43), and indirect resultatives arise when the result is more clearly added and the internal argument is 'unselected', by the original verb (as in (44)).

(43) **Direct Resultatives**
  (a) The lake froze solid.
  (b) John bottle broke open.
  (c) The mirror shattered to pieces.
  (d) John broke the bottle open.
  (e) The police shot the robber dead.

(44) **Indirect Resultatives**
  (a) John sang himself hoarse.
  (b) Mary sneezed the napkin off the table.

Shibatani and Pardeshi (2002) claim that morphologically opaque forms like lexical causatives tend to represent 'direct' causatives, while transparent

morphological forms (whether within the word or phrasal) tend to represent 'indirect' causation crosslinguistically. While I argued that the difference between direct and indirect causation is logically independent of particular morphological instantiation, the implicational hierarchy within and across languages is interesting and suggests that lexicalization of structure has an influence on how tightly subevents are temporally related. In my analysis of the distinction, I will build on the idea that lexicalization has an influence on the temporal dependence or independence of the resulting predication.

(45) *Temporal Dependence Hypothesis*:
For a result subevent to be temporally dependent on a process, the same root must identify the two subevents.

Causativization in *-vaa* always gives rise to an indirectly caused result state. I will therefore assume that *-vaa* lexicalizes the outer two subevents, inserting to lexicalize both the *init* and *proc* heads, leaving the root verb to just identify *res*. Also potentially relevant to this analysis, is the observation in Bhatt 2003 that the only base verbs that do *not* take *-vaa* in Hindi/Urdu are those that cannot occur in perfect participial form in combination with the 'light verb' *ja-* -'go', the so-called analytic passive.[13] I will further assume that the *res* specification on the root is not inherent, but comes from the fact that it occurs in stem form of the perfective participle. This is simply an assumption since the morphology here is null and thus the stem form for the perfective participle is indistinguishable in principle from the root. I assume it nevertheless because the semantics of the causative forms all include some realised result, that of the event described by the root actually happening. This is true regardless of the aktionsart of the root. I have nothing to say about how the morphology decomposes here, or how the result state reading is derived semantically from the semantics of the root verb. Depending on the verb, it seems as if it can either have a target state (telics) or a resultant state reading (atelics) in the sense of Kratzer 2000, Embick 2004.

(46) **'Indirect' Causativization in** *-vaa*
•The *-vaa* suffix bears both *init* and *proc* features. It can form a structure together with roots of various different types.

[13]Bhatt (2003) actually uses this fact to motivate an analysis of *-vaa* causativization which explicitly embeds passive substructure. My claim here is different, though related, namely that the root identifies only the result subevent *res* in *-vaa* causativization, a fact that it has in *common* with the construction involving the 'passive' light verb 'go'. The reason I reject the idea of explicit passive substructure in *-vaa* causatives is that unaccusative intransitive roots do causativize in *-vaa* although they do not passivize.

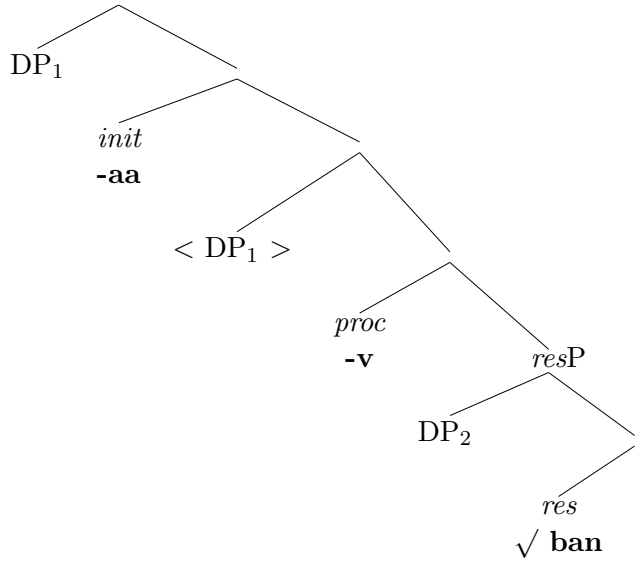
•*-vaa* always forces underattachment of the root's own category features. The root itself always identifies only *res*.
•Since *proc* and *res* are always identified by different lexical items, the complex causative structure will be interpreted as 'indirect', or 'temporally independent'.

As desired, regardless of the type of the base verb, causation in *-vaa* will always be indirect because of the fact that *-vaa* is specified as identifying both *init* and *proc* and therefore the content of the root verb will never identify both process and result. Also, since *-vaa* lexicalizes *init*, it will always introduce an extra argument in relation to a verb that either has no *init* feature itself, or whose *init* feature was a 'raising' subevent. Thus, in the case of unergatives and ingestives, the INITIATOR-UNDERGOER of these verbs survives in UNDERGOER-RESULTEE position and is interpreted only as 'affected' by the process but not as an INITIATOR any more. In the case of transitives, the *init* feature of the root will underassociate, and therefore even though an argument gets added, one gets lost as well, leaving the argument structure transitive as it was before.

An example of the decomposition of a causative in *-vaa* for the unaccusative *ban-* 'build' is shown in the phrase structure below.

(47) anjum-ne (mazdurõ-se) makaan ban-vaa-yaa
anjum-ERG labourers-INSTR house be made-*vaa*-PERF.M.SG
'Anjum had a house built by the labourers.'

(48) **Unaccusatives plus** *-vaa*



'make-vaa' : DP_1 initiates and undergoes some process so that DP_2 ends up getting made.

It is often noted in the literature that causativization in *-vaa* seems to involve a high degree of volitionality on the part of the external argument. I have argued elsewhere (Ramchand 2008) that psychological involvement in the event can allow a participant to be expressed as an UNDERGOER. This is the most speculative part of the analysis offered here, but I represent DP_1 in UNDERGOER position for this reason.

Turning now to the causative suffix *-aa*, it too can attach to all verb types, but with a meaning of direct causation. I will assume that this means that the root verb lexicalizes not only *res* as in *-vaa* causativization, but *proc* as well. This means, by hypothesis, that the process and result subevents will be temporally dependent and lexically encyclopedically identified by the same item.[14]

(49) **Direct Causativization in** *-aa*
•The *-aa* suffix bears an *init* feature. It can form a structure together with roots of various different types.

[14]Here I make use of the fact that the stem form of the root in the perfective participial form and the bare root are systematically homophonous in this language, and same form can be inserted under *res*, as under *proc* and *res* in forming a full verb.

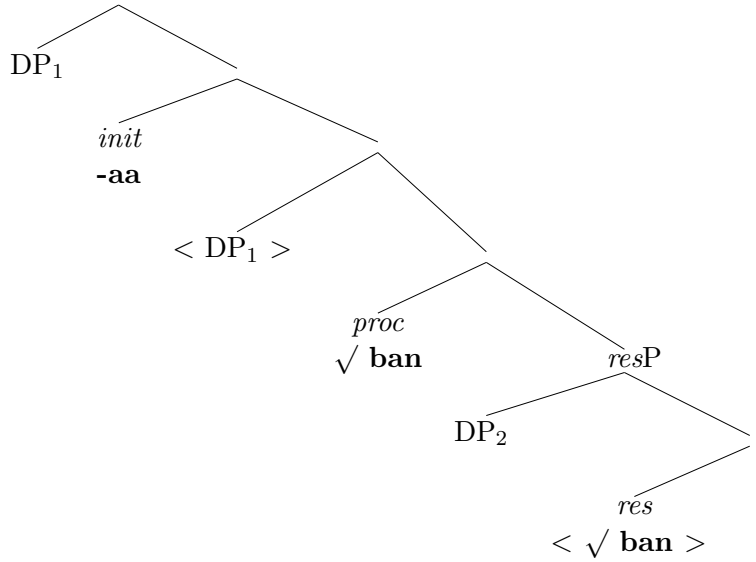
•If the root in question also has an *init* feature, it will remain unattached (implicit).
•Since *proc* and *res* are identified by the same lexical root, the complex causative structure will be interpreted as 'direct', or 'temporally dependent'.

Like *-vaa*, since *-aa* lexicalizes *init*, it will also always introduce an extra argument in relation to a verb that either has no *init* feature itself, or whose *init* feature was a 'raising' subevent. However for the *-aa* suffix, the relation between process and result will always be direct, regardless of verb type. Note that this analysis has the *-aa* suffix being smaller in functional terms than *-vaa*, lexicalizing only the higher of the two heads that *-vaa* lexicalizes. The analysis is consistent with the mirror principle if we assume that *-vaa* can be decomposed into *-aa* plus an extra *proc* morpheme *-v*. However, I will not pursue a further decomposition here.

An example of the decomposition of a causative in *-aa* for the unaccusative *ban-* 'build' is shown in the phrase structure below (51).

(50) a.Makaan ban-aa
house make-PERF.M.SG
'The house was built.'
b. Anjum-ne makaan ban-aa-yaa
Anjum-ERG house make-*aa*-PERF.M.SG
'Anjum built a house.'

(51) **Unaccusative plus** *-aa*



'make-aa' : DP_1 initiates (vaguely), leading to DP_2 undergoing a change and getting made (DP1 makes DP2)

The different causational status of the subject of *-aa* causatives as compared to *-vaa* causatives is represented in the structure here: the external argument of an *-aa* causative is a pure initiator. In my fieldwork on causers, I found that inanimate and stative causers were quite often possible with *-aa* causatives (given the right verb and context), but that this was systematically impossible with *-vaa* causatives. The verb pairs that I elicited for the translations of the following English sentences shown below were grammatical for the *-aa* causative and ungrammatical for the *-vaa* causative.

(52) (a) ban-aa-naa/*ban-vaa-naa Johns money built that house.
(b) pak-aa-naa/*pak-vaa-naa The sun ripened the fruit.
(c) suljh-aa-naa/*suljh-vaa-naa The new arrangements simplied the problem
(d) ubalaa-naa/*ubal-vaa-naa The kettle boiled the water very fast.
(e) dhul-aa-naa/*dhul-vaa-naa The rain washed the clothes

While this pattern needs to be investigated further, I will assume here simply that the fact that the subject is a pure INITIATOR and not an UN-

DERGOER in any psychological sense is what makes this possible.[15]

4.2. *-se* as a Subevent Modifier

Under this view of things, the base verb root is free to underassociate its category information (which corresponds to information about subevents). In the case of *-vaa* suffixation, the root becomes a derived participle under *res* and all of the root's category information is unassociated to structure. In the case of *-aa* suffixation, only a root with an *init* feature will have an unassociated feature. I will further assume that like implicit or demoted arguments in the classical theory of argument structure derivations in the lexicon, an unassociated category feature is still 'present semantically'[16], and can be modified or specified by adjuncts.

We are now in a position to see the pattern in the distribution of *-se*-marked adjuncts in Hindi/Urdu causative constructions. Given the proposal for representing direct vs. indirect causation above, we see that certain event descriptions contain unassociated, or implicit subevent category information, while others do not. The table below shows the different combinations of verb stem and suffix, together with an indication of which if any subevent category feature remains unassociated in the root.

(53)

Verb Type	**Intermediate Agent** *-se*	**Implicit Subevent**
Base Trans	NO	NO
AA-Causative		
of unacc.	NO	NO
of unerg.	%	*init*
of trans	%	*init*
of ingestive	%	*init*
VAA-Causative		
of unacc.	YES	*proc*
of unerg	YES	*init, proc*
of trans	YES	*init, proc*
of ingestive	YES	*init, proc*

[15] One could think of other interpretations using the separation between Voice and Cause as argued by Pylkkänen (1999), for example, but I do not pursue the separation between event cause and Agent here.

[16] The way I would implement this formally would be to say that the lexical encyclopedic content linked to that unassociated feature must get unified with the structural semantic and other lexical encyclopedic ingredients of the linguistic representation.

All speakers allow an intermediate agent interpretation when there is an unassociated *proc* feature in the root, and a subset of speakers also allow it when there is an unassociated *init* feature in the root. Thus, we can profitably analyse the *-se* adjunct as a predicate over events which attaches at the level of *proc*P and further specifies the event description that it modifies. *-Se* phrases essentially introduce in their specifier a (non-volitional) facilitator/direct cause as part of the lexical encyclopedic specification of *-se*. Both instruments and intermediate agents are non-volitional direct causes.[17] However, the *kind* of direct cause that is felicitous depends on event being modified. The *-se* phrase appears to modify both present and implicit (underassociated) subevental information: if it modifies the identified *proc* it is interpreted as 'instrument'; if it modifies an *implicit proc*, it can introduce an animate DP which directly causes the implicit subevent, thus interpreted as an intermediate actor. Essentially, what I am claiming here is that the *-se* adjunct is linguistically always a subevent modifier which introduces a direct, non-volitive cause, the different interpretations it gets is a matter of semantics: implicit encyclopedic content from a root verb provides conceptual information that makes an intermediate agent interpretation possible/felicitous. For most speakers, this is very salient when there is an implicit *proc* event since it can have an agent/direct cause that is distinct from the expressed agent of the explicit *proc* event. For some speakers, the intermediate agent interpretation is possible even if there is only an implicit *init* subevent. Further work is clearly needed to see whether there are subtle differences between the interpretation of a *-se*-marked animate with implicit *init* events and the interpretation one gets with implicit *proc* events. I have attempted to unify the instrument and intermediate agent readings of these adjuncts, but there are other readings for *-se* adjuncts in Hindi/Urdu such as manner and means modifiers that are probably related uses, possibly event modifiers at slightly higher levels of structure.

[17] It is also a property of the *-se* marked arguments of the abilitative construction, in both its 'accidental' and 'inabilitative' guises (see Bhatt 2003), although I will not extend the proposal to those arguments here since there are some independent issues that arise for this construction such as modality and subjecthood properties.

5. Conclusion

To conclude, I have tried to argue in this paper that the intermediate agent of an indirect causative should not be seen as some kind of demoted thematic role. Rather, a careful investigation of direct vs. indirect causation in Hindi/Urdu reveals that it is an event modifier, like other adjuncts/adverbials, whose interpretation is sensitive to the causational substructure of the phrase that it modifies, and to general conceptual factors. I have tried to show that at least in this language, direct vs. indirect causation does not correspond to lexical vs. syntactic, or monoclausal vs. biclausal predications. Rather, it corresponds to temporal independence of events that are in a causative relation. Specifically, in my implementation indirect causation is implied when *process* to *result* are not co-lexicalized.

While the analysis is not couched within a theory that contains a lexical module, these data patterns nevertheless required a way of dividing verbs up into natural classes depending on their subevental structure. The differences in interpretation of the *-se* marked phrases were found to be sensitive to the subevental structure of the verbal stems before causative affixation. I implemented this in terms of implicit subevents in a theory which allows items to underassociate some of their category features in certain syntactic contexts.

This analysis of direct vs. indirect causation in Hindi/Urdu is rather different from the standard lexical account, even though Hindi/Urdu was a very important early source of data on the distinction (Masica 1976, Kachru 1980, Saksena 1982a, Dixon 2000). One important point that emerges from this analysis is that the indirect/direct distinction per se is not an indication that there is full clausal embedding in one case and not the other, or even that the indirect causative formally embeds the direct causative. While there are probably many languages where structures are indeed built up in that way, (e.g. English "I made Bill make Sue draw a picture of a goat."), it is unsafe to assume that the semantics of indirect causation always correlates with this kind of periphrastic recursion. The evidence from Hindi/Urdu in fact seems to be, paradoxically, that the direct causative marker properly includes the indirect causative marker, and that the latter morpheme reaches down even lower into the subevental structure disrupting a direct relationship between initiation and result. I leave it for further research whether there are other languages with direct and indirect causative markers that should also be analysed along these lines.

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