

CAUSATIVE SENTENCES IN HINDI REVISITED

by

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1.0 The causative sentences in Hindi have been discussed in a number of recent linguistic works and some very interesting facts have come to light as a result of these.¹ Most descriptions agree that causative sentences involve the process of embedding, but in one of the works, it has been claimed that '... causative sentences in Hindi do not have embeddings and have the structure of a simplex sentence' (Balachandran op. cit. 64). Since some very powerful arguments have been given to support various claims made in the works mentioned above, it may not be entirely useless to reexamine the whole topic of causative sentences in Hindi and see what could be an explanatory account of the phenomenon so widely discussed. Also, the causative sentences in Hindi are of theoretical interest in so far as they support a particular hypothesis about the nature of lexical insertions in a transformational grammar: they provide evidence for McCawley's claim that '... the complex of semantic material which a lexical item corresponds to need not be a constituent which arises through a transformation ...' (McCawley 1968:72). The causative sentences in Hindi, however, question McCawley's suggestion with regard to '... requiring all lexical insertions to take place after the cycle but before the postcyclic rules' as a 'way of constraining lexical insertions so that their ordering would not be a way in which languages could differ'. (McCawley 1968:78). In this respect, it is interesting to compare the properties of the causative sentences with those of the ko-sentences in Hindi.² By ko-sentences, I mean sentences such as the following:

1. ram ko bhūkh lagī
'Ram' 'to' 'hunger' 'felt'
Ram felt hungry.
2. mujhko lagta hē ki bariš hogī
'me' 'to' 'feels' 'that' 'rain' 'will happen'
'It seems to me that it will rain.'

Notice that in these sentences, the logical subjects ('Ram' and 'I' respectively) appear with a dative postposition (ko), and the complements ('hunger' and 'that S' respectively) function as grammatical subjects. I shall discuss the nature of ko-sentences as it relates to the hypothesis of lexical insertion towards the end of this paper.

1.1 Three of the works mentioned above list verbal subclasses relevant to a discussion of causativization in Hindi (Bahl 1967, Kachru 1966, Balchandran 1970). I shall not summarize their findings here. The questions which are most interesting to review are the following: (i) do the causative sentences involve embeddings, and if so, is the causative rule a postlexical transformational rule?³ (ii) which grammaticosemantic features of verbs are relevant for causativization and for case assignment to the various Noun Phrases that occur in a causative sentence? These will be taken up in the following discussion.

2.0 The main arguments that Balchandran presents in support of her claim that causative sentences do not have embeddings are the following: first, the noncausal verb can occur with a number of manner adverbials, but when embedded under a causative node, the noncausative or innermost verb can not be modified by such

adverbials, e.g., munna rote - rote so gaya 'The child fell asleep crying' is a good sentence of Hindi, but in jī jī ne munne ko rote - rote sulaya 'The elder sister put the child to sleep crying' the adverbial rote - rote refers back to jī jī and not to munna. There is no natural way the grammar could impose a restriction that embedded verbs under causative could not be modified by manner adverbials. Second, some restrictions have to be specified with regard to the occurrence of reflexive pronouns in causative sentences, e.g., in ram ne apne kapre pahne 'Ram wore his clothes' the reflexive pronoun apna refers back to Ram, but in mohan ne ram ko apne kapre pahnae 'Mohan caused Ram to wear his clothes', the reflexive pronoun apna unambiguously refers back to Mohan and not to Ram. Since both reflexive and causative rules are cyclic, it would be impossible to constrain the reflexive rule in a way that would ensure its application only after the causative rule. Third, semantically, it is not true that the causative sentence implies the noncausative sentence, e.g. the following sentence is grammatical mā ne bacce ko sulaya par vah nahī soya 'Mother put the child to sleep but he didn't sleep' although the negative sentence with the noncausal verb denies what the positive sentence with the causal verb asserts. Finally, the deep structure case marking of Agent or Experiencer remains the same in the causative sentences also, so that although mā ne lərke ko d. rava 'I made the boy run' is a grammatical causative sentence and lərka in this sentence is superficially marked as object (with the ob-

jective marker ko), the adjectivization rule does not apply to this sentence and yield a phrase *mera d:raya hus larka 'the boy made to run by me' because larka retains its Agent function in the causative sentence, too.

I argue below that the first argument presented by Balchandran is only partially correct, the third is wrong, and there are well-argued answers for the second and the fourth (cf. 3.0 and 2.3 respectively).

2.1 It is not correct that the manner adverbials that occur in the innermost sentences could not occur with the same reference in the complex (causative) sentences. Consider the following sentences:

3. nars ne rogī ko lete - lete deva pila dī

'The nurse caused the patient to drink the medicine lying.'

4. mā in bedtāmiz larkō ko khare - khare nikalva.dūnge

'I shall have these ill-mannered boys thrown out (while (I am) still) standing.' (they are)

5. pulis ne garī ko celte - celte rukva liya

'The police made the vehicle stop (while) moving.'

6. mā ne n.kar se savdhanī se bistere lagvee

'Mother made the servant make the beds carefully.'

Notice that sentences 3-6 are ambiguous. The adverbials lete - lete, khare - khare, celte - celte, and savdhanī se do not refer back unambiguously either to nars, mā, pulis and mā or to rogī, larka, garī and n.kar respectively. For at least some speakers of Hindi, an unambiguous reference will be signalled by a change of order in

the surface-structure, e.g.:

7. mā ne lete - lete ram ko kōhanī sunsī

'Mother told Ram a story lying.'

8. sikṣak ne khare - khare šararētī lərke ko nikalve diya

'The teacher had the mischievous boy thrown out (while) standing.'

9. pulis ne celte - celte garī rukva lī

'The police made the vehicle stop (while) leaving.'

The above seems to be true of all manner adverbials derived from intransitive verbs; the only exceptions seem to be verbs of expression such as hōsna, rona, etc. It may be the case that verbs such as hōsna, rona etc. are verbs of volition just as the majority of transitive verbs in Hindi are and therefore there is a 'preference' to interpret adverbials derived from these verbs as referring to that Agent of the sentence who 'controls' the action, event or process rather than the Agent who merely performs the action, or experiences the experience, or is affected by the event.⁴ This is not an entirely unmotivated suggestion, but, other considerations point to a more acceptable solution of the problem which is briefly discussed in 3.2.

2.2 Balchandran's argument that sentences such as 10 are well formed is incorrect:

10. *mā ne bōcce ko khilaya, phir bhī usne nōhi khaya

*'The mother made the child eat but he did not eat.'

Notice that the English sentence is ungrammatical as the adversative conjunction conjoining a negation of what is asserted by the first conjunct produces a contradiction. In general, a causative, especially

with a perfective, implies the completion of the action/process/event instigated, hence, all the following sentences are ungrammatical:

11. *mẽ ne panĩ ubala, pər panĩ nəhi ubla
'I boiled the water, but it didn't boil.'
12. *nəkər ne bəcce ko kəpre pəhnae, phir bhĩ usne nəhi pəhne
'The servant dressed the child but the child didn't get dressed.'
13. *rəm ne mohən se upənyas xərĩdvaya, pər mohən ne nəhi xərĩda
'Ram made Mohan buy a novel but he didn't buy (it).'

A higher performative verb, however, will result in grammatical sentences:

14. mẽ ne panĩ ubalne kĩ košiš kĩ, pər panĩ nəhi ubla
'I tried to boil the water but it didn't boil.'
15. rəm ne mohən se upənyas xərĩdvane ka prəyətñ kiya pər mohən ne nəhi xərĩda
'Ram tried to make Mohan buy a novel, but Mohan did not buy it.'

2.3 The implication of the reflexive rule will be discussed after a reply to Balchandran's fourth argument is outlined. It is not correct that *mərə d rəya hūe lərka is ungrammatical only because of the deep structure case (Agent, in this instance) of lərka. In the following examples, all noun phrases that contain a past participial modifier modifying an animate noun are ungrammatical;

16. m̄ ne lərke ko pukara
'I called the boy.'
- 16a. *lərka mera pukara hua h̄
16b. *mera pukara hua lərka
17. m̄ ne kutte ko səhlaya
'I patted the dog.'
- 17a. *kutta mera səhlaya hua h̄
17b. *mera səhlaya hua kutta
18. pulis ne cor ko pəkra
'The police arrested the thief.'
- 18a. *cor pulis ka pəkra hua h̄
18b. *pulis ka pəkra hua cor

Notice that all the verbs above, i.e., pukarna, səhlana, pəkar̄na are inherently transitive, hence, the deep structure case of the nouns lərka, kutte and cor are not responsible for the ungrammaticality of 16-18.⁷ The adjectivization rule of Hindi is constrained in such a way that transitive verbs with animate objects do not yield past participial modifiers that modify the animate object.⁸

2.4 It is clear from the foregoing discussion that the arguments presented to support the claim that causative sentences do not involve embedding are not overwhelmingly convincing. Even Balchandran notices the regularity with which the 'Non-Causative, Direct Causative and Indirect Causative stems of the verbs are related' to each other (Balchandran op. cit.: '90). She also argues against listing the three stems of a verb separately in the lexicon and proposes 'we can enter for each verb an underlying stem from which

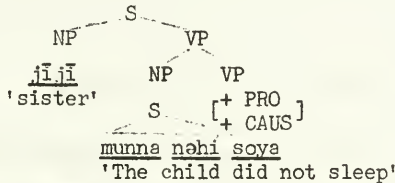
the variant stems can be derived by some general morphophonemic rules ... For each verb we can specify the Basic Case Frame in the lexicon. The Basic Case Frame is the array of cases in which the verb in question appears when it is Non-Causative ... The case-frame that is required for a verb when it gets marked for Causative features can be derived from the basic case frame by way of some general Redundancy Rules (Balchendran op. cit. 93).

3.0 A grammatical description of the process of causativization in Hindi has to account for the following facts. The noncausative and causative sentences are related, both syntactically and semantically, in regular ways. The most satisfactory account of this regularity is achieved if we propose that the causative rule is a recursive rule and that causative sentences involve embedding. The fact that the causative rule does not interact with rules such as reflexivization and adverbialization suggests that causative rule is not a post-lexical transformational rule. If it were a postlexical transformational rule which was cyclic, it would have to interact with reflexivization and adverbialization rules, but such interaction produces ungrammatical sentences in Hindi. The only reasonable explanation, then, is that the causativization rule is a prelexical transformational rule, as Kleiman has suggested.⁹ If we accept her suggestion, all the above and some additional facts get a natural explanation. The fact that in ram ne mohən ko ərne kəre pəhne, the reflexive ərna does not refer to mohən is explained in the following way. The underlying representation of the sentence,

roughly, is: [X[Y WEAR[Z's clothes]]CAUSE]. The semantic material (X(Y WEAR)CAUSE) is incorporated by a causativization rule and thus, the agent of (WEAR(CAUSE)) now is X. In case X and Z are identical, reflexivization takes place, otherwise it is blocked. The additional facts that get an explanation are as follows:

3.1 Notice that the innermost sentence of a causative sentence in Hindi can not be negative. That is, the following underlying structure does not result in a grammatical causative sentence in Hindi.¹⁰

A



If it is accepted that the causative rule is a prelexical rule and that the lexical verb sulena substitutes the underlying semantic material (X(Y(SLEEP)CAUSE), it is obvious why A does not yield a grammatical sentence; there is no lexical verb in Hindi to replace (X(Y NOT SLEEP) CAUSE).

3.2 Consider the following sentences:

19. bācca khana kha kār soya.

'Having eaten, the child went to sleep.'

20. mā ne bācce ko khana kha kār sulaya.

a. 'Having eaten, the mother put the child to sleep.'

b. *'The child having eaten, the mother put him to sleep.'

Notice that 20 is not ambiguous, khana kha kār in this sentence refers only to mother, and not to the child as in 19. If the causative rule

were a postlexical rule, 20 should have been ambiguous, i.e., it should have been grammatical in the interpretation 20b as well. But, it is not. This again supports the proposal that the causative rule is a prelexical rule. The V-kār phrases in Hindi are probably derived from an embedded sentence, the embedding takes place only if the subjects of both the matrix and the embedded S-Verbs are identical.¹¹ Sentence 20 could not be interpreted as 20b, i.e., in a way which would identify the subject of kha as being bacca, because in that case, the hypothetical underlying representation, leaving irrelevant details out, would be as follows:

$$S_0 [X S_1 [Y VP [Adv [S_2 [Y \underline{kha}] S_2] Adv SLEEP] S_1 CAUSE] S_0$$

The prelexical causative rule will apply to (X(Y SLEEP)CAUSE). Subsequently, the adverbialization rule that yields V-kār phrases could only apply if the subject of kha is identical to the subject of the causative verb. In this case, the identity condition is not met, hence, the rule is blocked. On the other hand, 20 is grammatical in the interpretation 20a, because the underlying representation of the sentence, roughly, is as follows,¹²

$$S_0 [X Adv [S_1 [X \underline{kha}] S_1] Adv NP [S_2 [Y SLEEP] S_2] NP CAUSE] S_0$$

The prelexical rule of causativization applies to (X(Y SLEEP)CAUSE). Next, the adverbialization rule that yields V-kār phrases applies as the subjects of the causative verb and the verb kha are identical.¹³

4.0 The process of causative embedding thus involves the following rules: a prelexical causativization transformation that via

predicate raising creates a constituent of the type $(X(Y(Z\text{ VB})\text{CAUSE})\text{CAUSE})$ where X, Y and Z are participants and VB is the noncausative form of any V which is marked [+ causative], a subject raising rule that raises the NP corresponding to Z, and in subsequent cycle, the NP corresponding to Y to the next higher S, and case marking rules which assign proper case markings to NP's corresponding to X, Y and Z.¹⁴

Note that the prelexical rule of causativization in Hindi is obligatory, i.e., there are no grammatical paraphrases of causative sentences which keep the constituents of the semantic complex distinct on the surface. To ensure that an underlying representation such as $(X(Y(Z\text{ VB})\text{CAUSE})\text{CAUSE})$ ends up in a grammatical sentence, the rule of causativization must apply recursively and a single lexical item, viz., the causative form of VB, must replace the resulting complex of semantic material. Notice also that the lexical insertion of the causative verb must precede the application of such cyclic rules as reflexivization, adjectivization, adverbialization, etc. Another topic in Hindi syntax provides evidence to support such a claim, namely, that lexical insertion of verbs must precede postlexical cyclic rules in Hindi. The topic is that of ko-sentences in Hindi mentioned in 1.0. But, before I discuss the evidence provided by ko-sentences, I would like to discuss in some detail the subtopic relating to the case marking of the NP's in causative sentences in Hindi. Some of the properties of verbs that play a crucial role in case marking but have not been discussed clearly are the following.

4.1 In my earlier work, I had posited two grammaticosemantic features, [ātmāne] and [parasmai], to account for certain properties of compound verbs in Hindi (these will be referred to as [+ atmane] in the following discussion). I had also pointed out that transitive verbs which are marked [+ atmanē] and thus occur only with the operator lena have a first causal form which normally occurs with the operator dena (the operator dena does not occur with [+ atmane]) and, furthermore, that only those verbs which occur with dena have a (2nd) causal form. Note that all first causal (transitive) verbs derived from intransitive verbs share this property, i.e., they occur with dena and have a (2nd) causal form. The first causal forms of verbs are thus automatically [- atmane].¹⁵ The subjects of all verbs that are marked [- atmane] (they may also be marked [+ atmane], i.e., they may be marked for both the features, but, what is crucial here is that they may not be marked only [+ atmane]) are, after the causative embedding, assigned the role of mediary agent and marked with the postposition se.¹⁶ The animate subjects of [+ atmane] transitive verbs, however, are assigned the role of the recipient in the first causal (double transitive) and are marked with the dative postposition ko. The subjects of intransitive verbs function as direct objects of causative sentences, and if animate, are marked with the objective postposition ko. The subject of the highest verb is assigned the role of agent and is marked with the agentive postposition ne under appropriate contexts. The fact that only the subjects of [+ atmane] transitive verbs could function as recipients in causative

sentences is interesting. Note that the subject of a [+ atməne] verb combines the roles of agent and beneficiary both, hence, [+ atməne] verbs do not take a benefactive adverbial.¹⁷ The indifferently marked verbs i.e. those marked [+ atməne], may take a benefactive adverbial, as the subjects of these verbs do not combine the roles of agent and beneficiary. The subjects of these verbs assume the role of mediary agent in causative sentences as the subject of the higher verb is assigned the role of the controlling agent. The postpositions ko and se assigned to subjects of [+ atməne] or [+ atməne] verbs in causative sentences thus signal an important semantic distinction.

4.2 Notice that the case assignment rules that assign the objective ko, the dative ko and the instrumental se are all relevant for other areas of Hindi grammars also.¹⁸ The rule of subject raising is also independently motivated to account for certain constructions discussed under NP - Complementation.¹⁹ The rule that crucially distinguishes the causative sentences from other complex sentences then is the prelexical rule of causativization which involves predicate raising. The rule operates on semantic material and creates a constituent which is later replaced by a lexical item.²⁰

5.0 The ko-sentences of Hindi support the claim that the lexical insertion of the verb precedes other (postlexical) transformational rules. It has been argued that the animate NP's of sentences such as the following start out as the subject (not agent but victim or experiencer) but are later marked with the dative postposition ko as

receptients (Kachru 1970):

21. *sīta ko ghar yad aya*
'Sita remembered home.'
22. *Šer ko golī lagī*
'The bullet hit the lion.'
23. *k-ve ko behut pyas lagī thī*
'The crow was very thirsty.'

With regard to reflexivization, the ko-sentences behave exactly the opposite of causatives; e.g. the following are grammatical sentences:

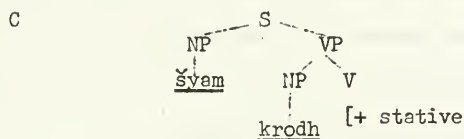
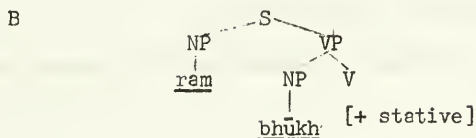
24. *mujhko apne bhai per bara krodh aya*
'I got very angry with my brother.'
25. *mohan ko apne per bharosa nahī h.*
'Mohan does not trust himself.'

Notice that there are active sentences corresponding to 24 and 25 in which the NP's m and mohan are grammatical subjects (agents):

- 24a. *m ne apne bhai per bara krodh kiya*
- 25a. *mohan apne per bharosa nahī karta*

The reflexive apna in 24a and 25a is straightforward, 24 and 25 raise some questions. It is clear that the reflexivization rule applies before the animate subjects are assigned the role of receptients, otherwise, the identity condition will not be met and hence the reflexive rule will be blocked.²¹ There is some evidence to support the claim that the lexical insertion of items such as ana, lagna, hona as verbs in ko-sentences is conditioned by the verbal feature [+stative] and also by features of abstract nouns such as bhūkh 'hunger', gussa

'anger', šerm 'shame', etc.²² That is to say, the following underlying representations result in ko-sentences with stative verbs lagna and ana respectively:



Notice that if the feature [+ stative] is replaced by the opposite feature [- stative] in C, the result will still be a grammatical sentence (viz. švam ne krodh kiya as opposed to stative švam ko krodh aya). In B, however, the feature [+ stative] is obligatory, there is no nonstative sentence *ram ne bhukh kiya parallel to ram ko bhukh legi 'Ram felt hungry'. This difference in the properties of ko-sentences with lagna vs. ana (also hona) is determined by the features of abstract nominal complements (such as bhukh vs. krodh) of these verbs. The lexical insertion of lagna, ana, karna, etc. precedes the postlexical transformational rules such as the psych-movement rule and the dative rule which mark the NP of S in B and C as recipient and attach to it the postposition ko. These rules operate on the above underlying representations only if they contain [+ stative] verbs, if they contain [- stative] verb karna, the rules do not operate.²³ The marking rule and the dative rule follow the reflexive rule, therefore, sentences such as the following are grammatical:

26. *sīta ko əpnā ghər yəd əya*
'Sita remembered her home.'

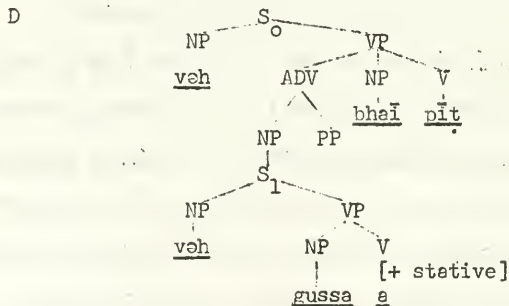
27. *tumko əpnī həkətō pər šərm ənī cəhiye*
'You should be ashamed of your actions.'

This analysis of ko-sentences in Hindi explains why 28 is grammatical but 29 is not:

28. *mujhko uskī batē sun kər gusse ə goya*
'Having heard his statements, I became angry.'

29. **(usko) gusse ə kər usne bhāī ko pīta*
'Having become angry, he hit (his) brother'

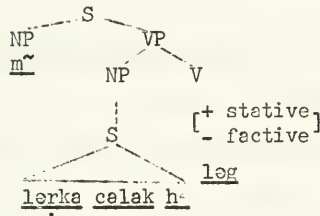
The hypothetical underlying representation of 29 is as follows:



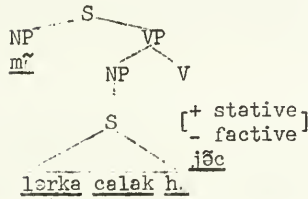
The lexical insertion of ə is followed by the marking rule and the dative rule and as a result of these, the subjects of S_0 and S_1 are no longer identical, hence, the rule that embeds V-kər is blocked.²⁴

5.1 The evidence to support the claim that the lexical insertion of stative verbs such as ana, lagna, etc. precedes other syntactic rules is as follows. Both jāna and lagna take a sentential complement, i.e. the following underlying representations result in grammatical sentences:

E



F



The operation of complement-embedding, psych-movement and dative rules on E results in two grammatical sentences: mujhko ləgta h ki lərka cəlak h. and mujhko lərka cəlak ləgta h., whereas the operation of the above rules on F results in one grammatical sentence only: mujhko lərka cəlak jəcta h. That is, although the semantic properties of ləgna and jəcna are identical, lexically, ləgna provides a choice between a ki-S complement and a complement that results from the application of the subject raising rule, jəcna only allows the operation of the subject raising rule.

6.0 To sum up the entire discussion, causative sentences in Hindi involve a prelexical rule of predicate raising, which is recursive. The lexical insertion of causative verbs, unlike in English, precedes other postlexical transformational rules in Hindi. The same is true of stative verbs that occur in ko-sentences. Grammaticosemantic features of verbs such as [+atmne] play a significant role not only in surface marking of NP's in causative sentences but also in assigning correct semantic interpretations to such sentences.²⁵

NOTES

¹Note, among others, the following: Bahl 1967, Balchandran 1971, Kachru 1965, 1966 and Sinha 1970.

²For a detailed discussion of some aspects of the syntax of ko-sentences in Hindi, see Kachru 1970.

³I shall use the term postlexical rule to designate any transformational rule that operates on a P-marker after lexical insertions have taken place.

⁴Krishnamurti 1971. The distinction Krishnamurti makes between the Performer/Experiencer agent and the agent who 'controls' the action, process, or event is important. Notice, however, that the specific arguments he presents against Balchandran's argument can not be justified. There is no natural way to block ji.ji ne munne ko rote - rote sulava 'The elder sister put the child to sleep while he was crying' if causative sentences are accounted for by a postlexical causative transformation. It is interesting that Krishnamurti suggests that the embedding of rote - rote in the above sentences in its usual meaning follows the lexicalization of sona and caus. to sulana.

⁵Both Kleiman 1971 and Krishnamurti 1971 suggest that such sentences in nonperfective tenses are grammatical. This, however, is not quite true. The following, although in imperfective, is still ungrammatical:

a. *mẽ dhobī se kapre dhulvatā hū, p̄er veh nahī dhota

'I get (my) clothes washed by the dhobi, but he does not wash them.'

Sentences such as the following require special interpretation;

b. m[~] rotiyā̃ b[~]natī hū, p[~]er ve b[~]atī n[~]ohī

'I make Rotis, but they do not get made well.'

Notice the ordering of noncausal form of the verb with respect to the negative particle n[~]ohī. In durative and future, such sentences are grammatical, as they involve action in progress and prediction respectively:

c. m[~] bocce ko sula r[~]aha hū, p[~]er v[~]eh so n[~]ohī r[~]aha h[~]ē.

'I am putting the child to sleep but he is not asleep yet.'

⁶cf. Krishnamurti, op. cit. 27, 'The intended reading depends on the choice of other elements like the tense and aspect, quantifiers, punctual and durative adverbs, performatives, etc. and the presuppositions that flow from them'.

⁷According to Belchendran, pukarna basically has the case-frame A + D (op. cit. 103); hence lerka in 16 is marked Dative.

⁸Both Kachru (1965 and 1966) and Verma (1966) fail to mention this in their discussion of the edjectivization rule in Hindi. Notice that there are some cases where a past participial modifier cooccurs with an animate noun, e.g.:

(i) gh[~]er se bh[~]ogāī huī p[~]rotē

'The women made to run away from home.'

(ii) m[~]ā kī dekhī huī l[~]erkiyā̃

'The girls seen by mother.'

In some sense, both bh[~]ogana (causative of bhagna) and dekhna (transitive V) have 'special' meanings in the above phrases. bh[~]ogana has

an extended meaning 'to elope with' and dekhna has an extended meaning 'to interview a boy/girl to determine his/her suitability for a matrimonial alliance.' In addition, the objects of bhagana and dekhna (in such special senses) are indefinite, and though animate, are not followed by the postposition ko. This may indicate a $\left[\begin{smallmatrix} - & \text{definite} \\ & \text{animate} \end{smallmatrix} \right]$ feature assignment to nouns such as prot, larka, larkī, becca, etc. in the context of some verbs. Notice that (b) would be preferable to (a) where larkī is marked $\left[\begin{smallmatrix} + & \text{definite} \\ + & \text{animate} \end{smallmatrix} \right]$

(a) ? m̃ ne ram kī larkī dekhi

(b) m̃ ne ram kī larkī ko dekha

⁹Kleiman 1971. I shall not go into the details of her proposal here; I shall, however, build my arguments on the basis of her proposal.

¹⁰Sinha claims that the causative sentence in Hindi is an instance of NP - Complementation (op. cit. 32). If it were so, the structure A should yield a grammatical causative sentence in Hindi. But, it does not. Notice that in other cases involving NP - Complementation, the embedded S may be negative, as in m̃ ne ram ko vohē ne jane ko kōhe 'I told Ram not to go there.' Sinha views the causative construction as involving two rules, a zero-complementizer rule which is sensitive to the features [+ causative one] or [+ causative two] of Verb, and the causative rule which is sensitive to these features and replaces them with -a and -va respectively. The incorporation of V -a -va is achieved by a morphophonemic rule. (Sinha, op. cit. 32-36). The zero-complementizer transformation accomplishes the following: it attaches a zero to the embedded S to the left of all its constituents

and deletes its Aux. It is hard to see what motivates the zero-complementizer transformation. All the instances for which a zero-complementizer transformation has been proposed could be accounted for by the subject-raising rule. (Sinha's ye-replacement). Other rules such as the imperfective participle rule (Sinha p. 119) could accomplish the task of replacing one exponent of Aux. with another, under his framework, without much complication the causative rule as proposed by Sinha is of trivial nature and offers no explanation of the syntactic facts discussed in this paper.

¹¹This is true of all sentences that contain a V-kər phrase. The only exceptions are expressions such as car bəj kər dəs minət hue h̄c̄ 'It is ten minutes past four.'

¹²Whether the adverbial precedes the object or the object precedes the adverbial is not crucial to this discussion. The following is a paraphrase of 20 in the interpretation of 20a:

a. mā̄ ne khana kha kər bəc̄ce ko sulaya.

I shall not discuss the basic order of constituents such as verbs, adverbials, objects, etc. in this paper.

¹³The counter-examples I have cited earlier to point out that Balchandran is not absolutely correct (sentences 3-6 in this paper) raise some interesting questions. Notice that the embedding of V-ta hua and V-a hue and also of the reduplicated present and past participials as adverbials does not depend upon subject identity. In this respect, the participials behave differently as compared with the V-kər phrases. As a consequence, at least for some speakers of

Hindi, īī ne munne ko rote - rote sulaya is ambiguous. For those who do not have two interpretations of this sentence, probably the verbs of expression such as hōsna, rona etc. are marked for subject-identity for the purposes of the rules that yield participial adverbials. Verbs such as hōsna, rona, etc. are different from other intransitive verbs in various ways. Note that whereas there is a semantic distinction between cāl kār and cālte hue, let kār and lette hue etc. ro kār and rote hue (also hōs kār and hōste hue) are usually interpreted identically, i.e., as manner adverbials only.

¹⁴It is not clear if an optional rule of 'agent creation' is needed to account for the causative sentences in Hindi (cf. J. Geis's proposal for English on the basis of data such as the following: John liquified the paraffin by heating it. Her proposal is that the subject of the inchoative verb is the sentence John heated the paraffin, after the operation of the 'agent creation' rule, the rest of the embedded sentence is extraposed as a by-phrase and John becomes the subject of the causative sentence). Kleiman (1971) suggests that this is plausible for Hindi on the basis of data such as the following:

(a) rem ke ag jolane se panī ubla

'The water boiled because of Rem's lighting the fire.'

(b) rem ne ag jolā kār panī ubala

'Rem boiled the water by lighting the fire.'

It is true that every causative sentence may contain a V-kār phrase which semantically states the cause that results in the effect described by the causative verb. It is also true that for every causative sen-

tence such as (b), there is a paraphrase sentence such as (a) which is noncausative and which contains a NP -se phrase such that the NP is a nominalization of the S underlying the VP -ker of the (b) sentence. The relationship of NP -se and noncausative V in the (a) sentence is identical to the relationship of V -ker and causative V of the (b) sentence. This, however, is not enough evidence to assert that the subject of a causative verb is an embedded S. Notice that even non-causative verbs in Hindi may cooccur with similar V-ker phrases:

(c) mē ne exbar parh ker jana ki ram cunav mē jīt gaya

'I gained the information that Ram won by reading the newspaper.'

janna 'to know' is an inherently transitive verb in Hindi and it can not be causativized. It may be the case that janna itself is composed of complex semantic material and is inserted after the causativization rule has applied. I am, however, aware of no syntactic evidence to support such a claim at present. This question is still open for further research.

¹⁵This is not to deny that the first causal forms occur with lena. All I am claiming is that normally, the noncausative V + lena turns up as V + dena in the first causal, e.g. ram ne angrezī sīkh lī. mē ne ram ko angrezī sikha dī. Most transitive verbs are marked, indifferently, as [+ atmane] e.g. bcna lena, bcna dena, dho lena, dho dena, etc.

¹⁶Sinha wrongly claims that the subject of first causal is marked as dative in the second causal (op. cit. 35).

¹⁷Verbs such as khane, pīna, sīkhna, perhna, janna, pehanna, orhna, kamena, pana, soona, samajhna, etc. are marked [+ atmane]. janna, pana, kamena, soona are marked [- causative]. Others, in

their causal form are marked [- atməne], and cooccur with dəne. Notice that pərhna and likhna require two dictionary entries each, one marked [+ atməne] and the other both [+ atməne]. The evidence for this is in the following sentences:

(i) ram ne ciṭṭhī pərh lī

'Rām read the letter (for himself).'

(ii) ram ne ciṭṭhī pərh dī

'Rām read the letter out loud.'

(iii) *mē ne ram ko ciṭṭhī pərhāī

(iv) mē ne ram se ciṭṭhī pərhvāī

'I made Rām read the letter.'

(v) ram ne mujhse hindi pərhī (*pərh dī)

'Rām learnt Hindi from me.'

(vi) mē ne ram ko hindi pərhā dī

'I taught Rām Hindi.'

Note that pərh [+ atməne] is equivalent to English 'read' and pərh [+ atməne] is equivalent to English 'to learn, to study.'

¹⁸Independent of causative sentences, the objects of inherently transitive verbs may occur with the objective postposition ko. All animate objects of transitive verbs (pukarna 'to call,' bulana 'to invite,' etc.) and all inanimate objects marked [+ definite] take the marker ko. The same rule will assign ko to subjects of intransitive verbs that turn up as objects of first causal (transitive) verbs as it is sensitive to features such as [+ animate], [+ definite], etc. It could be argued that the same rule that assigns ko to animate

NP's in the ko-sentences of Hindi assigns the dative ko to subjects of [+ atmane] transitive verbs that turn up as recipients in the causative sentences. More on ko-sentences is said in section 5.0 of this paper. It may also be argued that the same rule that assigns instrumental se to the passive agent assigns se to the mediary agents in causative sentences. This will not be further discussed in this paper.

¹⁹For instance, sentences such as the following are derived by rules that include the subject-raising rule:

(i) mē ne ram ko xuš dekha

'I saw Ram happy.'

(ii) larkō ne cor ko sēdh katte hue dekha

'The boys saw the thief breaking in.'

²⁰Unfortunately, Hindi does not provide clear cut data to support the claims made by the hypothesis that causativization involves a prelexical transformational rule of the kind mentioned above. Even so, the indirect evidence provided by other rules such as reflexivization, etc. the apparatus suggested by Balchendran for the dictionary entry of causative verbs and the remarks made by Krishnamurti all point to some such hypothesis. A non-Indo-European language, such as Telugu, may provide better data to support the hypothesis. (cf. Krishnamurti's examples 20 a, b and c where he claims '... here, the reading of transitive verb is limited to "Agent Orientation" represented by what an Agent "does" to bring about an event, short of bringing it about.' (p. 28). Also, the paraphrase relation of

21a and b (p. 29) corroborate the claim that causative forms represent complex semantic material.) No matter which languages provide the most satisfactory data, even Indo-European languages such as English and Hindi have syntactic properties which point to the same explanation of the causative phenomenon.

²¹The identity condition for reflexivization specifies that the item to be reflexivized must be identical to the subject of the S at the point at which the reflexive rule applies, (cf. Subbareo 1967).

²²Compare the following sentences.

(i) ram ko bhūkh lagī

'Ram became hungry.'

(ii) šyam ko gussa aya

'Shyam became angry.'

(iii) sītā ko šarm aī

'Sita felt ashamed.'

(iv) tumko dəya kyō aī?

'Why did you feel pity?'

It seems that abstract nouns denoting physical sensations of hunger, thirst, etc. contextually determine the occurrence of the stative lagna whereas the abstract nouns denoting emotional reactions such as anger, shame, pity, etc. determine the occurrence of the stative verb ana. There are no nonstative sentences parallel to (i) but there are nonstative sentences with karna parallel to (ii)-(iv), e.g.

(v) šyam ne (X pər) gussa kiya

'Shyam was angry with X.'

(vi) kuch to šarm kero

'Feel a little ashamed.' (a grammatical imperative)

(vii) Īšvər sōb pər dōya kērē

'May God take pity on all.'

²³The rule that assigns the role of recipient to NP of S in underlying representations B and C does not involve any movement, unlike English where psych-movement involves moving the affected NP: nevertheless, there are two rules involved in Hindi, too, one that marks the appropriate NP as recipient, and the other that attaches the proper postposition to the NP thus marked. The same is true of the passive in Hindi as opposed to English. English passive involves moving the NP's, Hindi simply marks the agent as passive agent with se.

²⁴The hypothesis that features such as [+ stative] determine the occurrence of verbs such as ana, lagna, etc. and thus at least some ko-sentences are stative versions of parallel nonstative sentences with karna does not account for total data of ko-sentences in Hindi.

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