

## Counterfactuality in Indo-Aryan

### 1 Generalizations and exceptions to them

- (1) Generalization 1: The *imperfective* participle is an ingredient of the counterfactual morphology.

The term ‘imperfective’ is italicized in (1) because only on quasi-historical grounds can the participle in question be termed imperfective if we take standard definitions of the term imperfective such as the following:

Imperfective is the verbal form that occurs in the following frame:

When I walked into the room, he V-Imperfective.

The quasi-historical grounds are that for most Indo-Aryan languages it can be argued that the participle referred to as ‘imperfective’ did at some point in time contribute a true imperfective interpretation. The other historical characterization we can give for this participle is that it is derived from the Present Active Participle of Old Indo-Aryan (OIA).<sup>1</sup>

Synchronically, a commonality in the interpretation of this participle in all the Indo-Aryan languages (with two exceptions, Assamese and Oriya) is that it can contribute (with tense and agreement markers) generic interpretations.

The languages that fall under generalization (1) are: Awadhi, Bengali, Bhojpuri, Braj, Bundeli, Chattisgarhi, East Rajasthani, Garhwali, Gujarati, Hindi-Urdu, Kannauji, Konkani, Kumaoni, Lahnda, Magadhi, Maithili, Marathi, Riwai, and West Rajasthani.<sup>2</sup>

Exceptions to this generalization are: Assamese, Oriya, Kashmiri (and possibly Sinhalese and Nepalese)

- (2) Generalization 2.1: There is no periphrastic tense marking in the counterfactual.  
Generalization 2.2: If a language uses periphrastic tense markers with the imperfective participle to form the present/past habitual, it does not use them to form the counterfactual. Instead it uses the imperfective participle alone (augmented with agreement suffixes in some cases).
- (3) Generalization 3: In counterfactuals, the same morphology occurs in both the antecedent and the consequent.  
if [..... V-CF] then [..... V-CF]  
This generalization holds even for the languages that do not use the imperfective participle for counterfactuality.
- (4) Generalization 4.1: The perfective, which in matrix contexts contributes pastness, gives a future interpretation in the antecedent of a conditional.  
if [..... V-Pfv] then [..... V-Fut]  
Unlike CFs, the same morphology does not occur in both the antecedent and the consequent.

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<sup>1</sup>Masica, pgs 272, 273: As far as NIA is concerned, the two (Imperfective and Contrafactive) have always been linked. (Languages now lacking this form of Contrafactive, which goes back at least to MIA (Cf. Chatterji 1926: 959, Prakash 1975: 286, Tripathi 1962: 193), have in most cases had it in the past, and replaced it with various circumlocutions.)

<sup>2</sup>I have not been able to check the facts directly for Bundeli, Chattisgarhi, Konkani, and Lahnda but have included them in this list based on Masica’s claim that these languages do not constitute a counterexample to (1).

Generalization 4.2: Some languages also have another conditional of the form

if [..... V-Fut] then [..... V-Fut]

The meaning differences between these two conditionals are quite subtle.

Possibility: The ‘if [... V-Pfv] then [... V-Fut]’ form corresponds to the FLV (Future Less Vivid) conditional, while the ‘[... V-Fut] then [... V-Fut]’ corresponds to the FNV (Future Normally Vivid) Conditional.

- (5) Generalization 5: In a counterfactual environment, in the absence of periphrastic tense marking, the *imperfective* participle does not contribute its usual set of interpretations (i.e. generic/habitual and for some languages also progressive/continuous). This can be seen by its compatibility with point adverbials.

Having presented these generalizations, I will now go on to discuss Hindi counterfactual conditionals in some detail. This discussion will help in furthering the reader’s understanding of the generalizations sketched above.

## 2 Counterfactuals in Hindi

The paradigm for various kind of counterfactuals and related habitual sentences is given below in (6).

- (6) a. agar Ram phal khaa-taa (\*hai/\*thaa)  
if Ram fruit ate-hab PRS/PST  
'If Ram ate the fruit (CF), ..' (Unspecified Contrafactive, PRCF?)
- b. Ram phal khaa-taa \*(hai/thaa)  
Ram fruit ate-hab PRS/PST  
'Ram eats/used to eat fruit.' (Present/Past Habitual)  
NOT 'Ram is/was eating a fruit.' not (Present/Past Progressive)
- c. agar Ram-ne phal khaa-yaa ho-taa  
if Ram-Erg fruit ate-Pfv be-hab  
'If Ram had eaten the fruit (CF), ..' (Perfective Contrafactive, PSTCF?)
- d. \*Ram-ne phal khaa-yaa ho-taa (hai/thaa)  
Ram-Erg fruit ate-Pfv be-hab PRS/PST
- e. agar Ram phal khaa-taa ho-taa (\*hai/\*thaa)  
if Ram fruit ate-hab be-hab PRS/PST  
'If Ram had been eating fruit habitually, ..' (Habitual Contrafactive)
- f. \*Ram phal khaa-taa ho-taa (hai/thaa)  
Ram fruit ate-hab be-hab PRS/PST
- g. agar Ram phal khaa rahaa ho-taa (\*hai/\*thaa)  
if Ram fruit ate PROG be-hab PRS/PST  
'If Ram had been eating the fruit, ..' (Progressive Contrafactive)
- h. \*Ram phal khaa rahaa ho-taa (hai/thaa)  
Ram fruit ate PROG be-hab PRS/PST

- i. Ram phal khaa rahaa \*(hai/thaa)  
 Ram fruit eat PROG PRS/PST  
 ‘Ram is/was eating a fruit.’ (Present/Past Progressive)

The paradigm in (6) illustrates Generalization 1 in (1). The form used for marking generic meanings (the *imperfective* participle) is used in counterfactuals also. Another point made by this paradigm is that the *imperfective* participle need not have any continuous/progressive interpretation. Cf. (6b).

Generalization 2.1 and 2.2 in (2) is also illustrated by the paradigm in (6). While it is necessary to have (periphrastic) tense marking to form a present/past habitual (in general), (periphrastic) tense marking is impossible in a counterfactual. Cf. (6a).

The requirement stated in Generalization 3 (in (3) that counterfactual morphology appear in both the antecedent and the consequent can be seen in (7). It can also be seen that this requirement is limited to counterfactuals.

- (7) a. agar [mĒ jaan-taa [ki is laghu chhatra ke-baare-mē aap itne serious hĒ]] to  
 if I know-Hab that this small umbrella about you so serious be.PRS then  
 mĒ ise haath bhii nahiN lagaa-taa  
 I this-dat hand only Neg contact-Hab  
 ‘If I had known that you were so serious about this small umbrella, I wouldn’t even have touched it.’
- b. agar [Ram-ne mehnat kar-ii] to [vo paas ho jaa-ye-gaa]  
 if Ram-Erg hardwork.f do-Pfv.f then he pass be GO-Fut  
 ‘If Ram works hard, he will pass.’
- c. agar [Ram Sita-ko jaan-taa hai] to [use us-se baat kar-nii chahiye]  
 if Ram Sita-Acc know-Hab PRS then Dem.Dat Dem-with talk do-Ger.f should  
 ‘If Ram knows Sita, he should talk to her.’

Perfective morphology, which otherwise gives simple past interpretations in isolation, (8a) can occur in the antecedent of a conditional and refer to the future (8b). Future morphology can also appear in the antecedent of a conditional. (8c,d) (see Generalization 4.1 and 4.2 in (4)).

- (8) a. Ram-ne picchle saal/ \*agle saal khoob mehnat kar-ii  
 Ram-Erg last year next year lot hardwork.f do-Pfv.f  
 ‘Ram worked very hard last year/\*Ram worked very hard next year.’
- b. agar [Ram-ne agle saal/ \*pichhle saal khoob mehnat kar-ii] to vo paas  
 Ram-Erg next year last year lot hardwork.f do-Pfv.f then he pass be  
 ho jaa-ye-gaa  
 GO-Fut  
 ‘If Ram works very hard next year, he will pass.’  
 ‘\*If Ram works very hard last year, he will pass.’
- c. agar [Ram-ne picchle saal/ \*agle saal khoob mehnat kar-ii hai/thii] to vo  
 if Ram-Erg last year next year lot hardwork.f do-Pfv.f PRS/PST then he  
 paas ho jaa-ye-gaa  
 pass be GO-Fut  
 ‘If Ram has worked hard last year/\*next year, he will pass.’

- d. Ram 5 bajē airport jaa-ye-gaa  
Ram 5 0'clock airport go-Fut  
'Ram will go to the airport at 5.'
- e. agar [Ram 5 bajē airport jaa-ye-gaa] to [vo traffic-jam me phas jaa-ye-gaa]  
if Ram 5 clock airport go-Fut then he traffic-jam in caught GO-Fut  
'If Ram goes to the airport at 5, he'll get caught in a traffic jam.'

The habitual morphology in the counterfactuals in (6) behaves differently from the way it behaves elsewhere (Generalization 5 in (5)). This can be seen clearly in (9).

- (9) a. \*Ram lambaa ho-taa hai/thaa  
Ram tall be-hab PRS/PST
- b. agar Ram lambaa ho-taa  
if Ram tall be-hab  
'If John was/had been tall,'
- c. #Ram aaj school jaa-taa hai  
Ram today school go-hab PRS  
'#Ram goes to school today (habitually).'
- d. agar Ram aaj school jaa-taa  
if Ram today school go-hab  
'If Ram had gone to school today,..'

Individual level predicates such as *lambaa* 'tall' cannot combine with habitual morphology and still take individuals as subjects, as the ungrammaticality of (9a) shows. However, combining an ILP and habitual morphology in the antecedent of a conditional does not lead to ungrammaticality. Instead, the result gets a counterfactual interpretation.

The contrast between (9c) and (9d) demonstrates a similar point. Habitual aspect is not compatible with point adverbial such as *aaj* (today) as the ungrammaticality of (9c) demonstrates. Put in the antecedent of a conditional, the illformedness vanishes. Both these cases, (9)c and d are instances where the habitual morphology behaves atypically. It behaves as if it were not there.

Two interesting points emerge if we combine the observations in (8) and (9):

- (10) Generalization 6.1: Aspectual morphology *mis*-behaves only in the absence of periphrastic tense marking.

Generalization 6.2: Only aspectual morphology has the option of *mis*-behaving. Periphrastic tense morphology (incl. future) never *mis*-behaves.

We can think of Generalization 6.1 as (partially) following from Generalization 6.2: periphrastic tense morphology never *mis*-behaves and its presence stops the aspectual morphology that occurs with it from *mis*-behaving.

In this section, the term 'periphrastic tense morphology' has come up several times. The question arises whether this is indeed the only kind of tense marking possible. This question will be the topic of the next section.

### 3 Covert and Overt Tense in Hindi

The basic facts are as follows: the perfective in isolation yields a simple past interpretation. With a present tense auxiliary, the perfective yields a present perfect while with a past tense auxiliary, it yields a past perfect.

The *imperfective* participle in isolation does not give any interpretation.<sup>3</sup> Combined with a present auxiliary, it gives a present habitual, while combined with a past auxiliary it gives a past habitual.

- (11) a. Ram-ne Sita-ko dekh-aa (aur kah-aa ‘tum bahut sundar ho’)  
Ram-Erg Sita-Acc see-Pfv and say-Pfv you very beautiful PRS  
‘Ram saw Sita and said ‘You are very beautiful’’. (Unspecified Perfective = Simple Past)
- b. Ram-ne Sita-ko saari pehn-e dekh-aa hai  
Ram-Erg Sita-Acc sari wearing see-Pfv PRS  
‘Ram has seen Sita wearing a sari.’ (Present Perfective = Present Perfect)
- c. Ram-ne Sita-ko saari pehn-e dekh-aa thaa  
Ram-Erg Sita-Acc sari wearing see-Pfv PST  
‘Ram had seen Sita wearing a sari.’ (Past Perfective = Past Perfect)
- d. Ram roj ghar jaa-taa \*(hai/thaa)  
Ram everyday home go-Hab PRS/PST  
‘Ram goes/used to go home everyday.’

It cannot be that the Unspecified Perfective is simply the present/past perfective with the tense auxiliary elided because the two forms are quite different in their meaning. If we postulate a covert tense in case of the Unspecified Perfective, then the covert tense will have to be given a semantics distinct from both the Present and the Past tense auxiliary.

Still, the perfective participle can function without an overt tense auxiliary, while it seems that the *imperfective* participle cannot. On closer examination, however, it turns out that the *imperfective* participle can occur without an overt tense auxiliary in certain non-counterfactual environments also. In these environments, it has a past habitual interpretation. In the next subsection, I will examine the environments which allow the *imperfective* participle to appear without an overt tense auxiliary and yet have a non-counterfactual interpretation.

#### 3.1 Past Habitual interpretation without an overt tense auxiliary

Our point of departure is the observation that in the absence of a rich context, a tense auxiliary less *imperfective* participle is basically uninterpretable/ ungrammatical.

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<sup>3</sup>The presence of negation has to be controlled for. The Hindi sentential negation is derived from a negative present tense auxiliary and it can substitute for the PRS tense auxiliary. Thus (1) is ok. However, it can only be construed as a present habitual.

- (1) Ram roj ghar nahii jaa-taa  
Ram everyday home Neg go-Hab  
‘Ram doesn’t go home everyday.’

It is possible for me to have the present tense auxiliary also. However, this is stylistically somewhat marked. To convey a negative past habitual, the overt past tense auxiliary has to be used.

- (12) \*/# Ram phal khaa-taa  
 Ram fruit eat-Hab

In the following environments, tense auxiliary-less *imperfective* participles are acceptable as past habituals. A partial list follows:

- As part of a sequence of sentences, where the first sentence in the sequence is a past habitual with an overt past tense auxiliary.

- (13) a. [fursat ke samay ve ḍaṇḍe-ko haath mē jhulaa-yaa kar-te the], [kabhi  
 leisure Gen time he stick-Acc hand in swing-Pfv do-Hab PST  
 use naak ke-paas rakh-te], [us-kii sugandh kaa majaa le-te]  
 sometimes it-Acc nose near keep-Hab it-Gen perfume Gen pleasure take-Hab  
 ‘In times of leisure, he would swing the stick in his hand. Sometimes, he would keep it  
 near his nose, and take pleasure in its smell.’
- b. \* [fursat ke samay ve ḍaṇḍe-ko haath mē jhulaa-yaa kar-te hai], [kabhi use  
 leisure Gen time he stick-Acc hand in swing-Pfv do-Hab PRS sometimes it-Acc  
 naak ke-paas rakh-te], [us-kii sugandh kaa majaa le-te]  
 nose near keep-Hab it-Gen perfume Gen pleasure take-Hab  
 ‘In times of leisure, he swings the stick in his hand. Sometimes, he keeps it near his nose,  
 and takes pleasure in its smell.’

The contrast between (13a) and (13b) shows that the tense auxiliary-less *imperfective* can only have a past habitual and never a present habitual interpretation.

- With an overt adverb of quantification

- (14) kai-baar apnii hatheli ko mantrii-ji anjaane-mē jakhmii kar  
 oftentimes self-Gen palm-Acc minister-Hon unknowingly wound do TAKE-Hab  
 le-te

‘Oftentimes, the minister would unknowingly wound his palm.’

NOT ‘Oftentimes, the minister unknowingly wounds his palm.’

Once again, the only interpretation available is the past habitual interpretation.

- With a *when* clause

- (15) jab [mantrii-ji Dilli jaa-te] tab [un-ke sab chamche bhii Dilli jaa-te]  
 when minister-Hon Delhi go-Hab then his all spoons also Delhi go-Hab  
 ‘When the minister would go to Delhi, all his flatterers would also go to Delhi.’  
 NOT ‘When the minister goes to Delhi, all his flatterers also go to Delhi.’

- With an *if* clause

- (16) a. ??(un dinō) agar [mantrii-ji Dilli jaa-te] to [un-ke sab chamche bhii Dilli jaa-te]  
 those days if minister-Hon Delhi go-Hab then his all spoons also Delhi go-Hab

‘In those days, if the minister would go to Delhi, all his flatterers would also go to Delhi.’

‘During that period, if the minister had gone to Delhi, all his flatterers would also have gone to Delhi.’

- b. #(agle saal) agar [mantrii-ji Dilli jaa-te] to [un-ke sab chamche bhii Dilli jaa-te]  
next year if minister-Hon Delhi go-Hab then his all spoons also Delhi go-Hab  
NOT ‘Next year, if the minister goes to Delhi, all his flatterers will also go to Delhi.’

No future + Counterfactual reading

- With a correlative clause

*when* and *if* clauses are also correlatives syntactically. The point is to give an example of a non *when/if* correlative.

- (17) [jis din mantrii-ji Dilli jaa-te] [us din un-ke sab chamche bhii Dilli  
which day minister-Hon Delhi go-Hab that day his all spoons also  
jaa-te]  
Delhi go-Hab

‘The day the minister would go to Delhi, all his flatterers would also go to Delhi.’

NOT ‘The day the minister goes to Delhi, all his flatterers also go to Delhi.’

- Observation 1: The tense auxiliary-less *imperfective* has a past habitual interpretation and a counterfactual interpretation.
- Observation 2: This tense auxiliary-less *imperfective* is only possible in certain environments: *if*-clauses, *when*-clauses, correlatives, with overt adverbs of quantification, or where Genericity has wide scope over a sequence of sentences. Cf. (13).

We know from the work of Kratzer a.o. that *if*-clauses restrict modals and adverbs of quantification and that *when*-clauses restrict adverbs of quantification. Assuming Kratzer’s analysis, we can then make the following hypothesis:

- (18) Tense auxiliary-less *imperfective* licensing hypothesis: Tense auxiliary-less *imperfective* is licensed by adverbs of quantification.

Alternatively, if we assume that there is a covert past tense here, we can state the above as a condition on the licensing of this covert past tense:

Covert Past Tense needs to be bound.

Assuming (18), we can now explain why both the antecedent and the consequent of a counterfactual have identical tense specification for e.g. both the antecedent and consequent in Hindi counterfactuals must have covert tense (no overt tense marking). Adverbs of quantification have to bind a variable both in the antecedent and the consequent or else the structure will be ruled out by vacuous quantification. In order to be licensed, a covert past tense has to be bound (in Hindi). Consequently, the adverb of quantification has to bind a covert past tense both in the antecedent and the consequent.

This concludes the discussion of the fact *per se*. I will now try to place this discussion in a broader context. Recent work, most prominently that of Iatridou (1996, in progress) has tried to relate the interpretation of conditionals to their tense and aspect morphology. I will first briefly summarize her proposal and then look at the Indo-Aryan facts in the context of this proposal.

## 4 Iatridou (1996, in progress) on Counterfactuality

### 4.1 Iatridou's Observations

- Tense/aspect morphology in conditionals can behave atypically.
- When Tense/Aspect morphology behaves atypically, it does so in unison.
- Whether a conditional with simple past tense morphology in the antecedent is interpreted as a counterfactual or an FLV conditional depends upon its situation aspect. This can be seen in the following set of sentences:

- (19)
- a. If you crossed the river right now, you'd find a pot of gold at the end. (accomplishment (telic), FLV)
  - b. If you won the race, you'd get a medal. (achievement (telic), FLV)
  - c. If you walked in the park yesterday, you would have muddy shoes. (activity (atelic), CF)
  - d. If you walked in the park with me later today, you'd realize that its fun. (activity (atelic), FLV)
  - e. If John was drunk, he wouldn't be able to walk properly. ( SLP (state), CF)
  - f. If John was drunk at the board meeting tomorrow, he would get fired (?? SLP (state), FLV)
  - g. If John was tall, he would be hired by the FBI. (ILP (state), CF)
  - h. \*If John was tall tomorrow, he would be hired by the FBI. (ILP (state), \*FLV)

### 4.2 Iatridou's Analysis

- Past tense morphology can be either interpreted as varying over the temporal domain or over the domain of worlds. When it varies over the domain of time, we get temporal precedence<sup>4</sup> and when it varies over the domain of worlds, it excludes a set of worlds. Iatridou assumes Klein's definition of the Past - according to which Past(Q) means that the Topic Time of Q precedes (excludes) NOW. In a similar vein, when Past(Q) is interpreted along the domain of worlds, it means that the Topic Worlds of Q (a certain contextually relevant set of worlds where Q is true) exclude the NOW world (the current world).

- In counterfactuals/FLVs, the first layer of pastness is interpreted along the domain of worlds - as excluding a certain set of worlds. This explains why the past tense morphology in counterfactuals behaves atypically.

- The worlds excluded by the past morphology depend upon the situation aspect of the antecedent of the conditional. Once the past tense morphology has been stripped off, the remaining proposition is evaluated.<sup>5</sup>

Depending upon their situation aspect, different propositions in the antecedent of a conditional can be evaluated at either the present or the future or both. If they can only be interpreted at the present,

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<sup>4</sup>Glossing over details of exclusion vs. precedence

<sup>5</sup>I understand the spirit of proposal here but not the implementation. What does it mean to evaluate a tense-less proposal? If we utter the tenseless 'John cross the street', why does its evaluation have to be in the future? Why can the event not have taken place in the past? In particular, in (20b), why does stripping the past tense from 'John went to the party' give us the still interpretable 'John goes to the party' and not 'John go to the party'.



we get counterfactuality since the Topic Worlds of the proposition exclude the current world. This is the case with ILPs.

- (20) a. If John was tall, he would be rich (counterfactual)  
 The Past tense in 'John was tall' gets used up giving us 'John is tall'  
 'If [John is tall] can be evaluated at the speech-time
- b. If John went to the party, he would have fun (FLV)  
 The Past tense in 'John went to the party' gets used up giving us 'John goes too the party'  
 'If [John goes to the party]' has to be evaluated w.r.t. a future point in time

If the proposition can only be interpreted with respect to the future, as is the case with telic predicates (Cf. (20b)), we do not get counterfactuality. Iatridou assumes a branching model of the future. In this model, while there is one past and one present world, there are many possible future world. Since the current 'real' world is only one of these many possible future world, it is not, necessarily, excluded in all the possible extensions. Consequently, (20b) lacks a counterfactual reading. We only get an implicature that the Q-worlds (the worlds where the antecedent Q is true) are less likely than the  $\neg$ Q worlds and not full-fledged counterfactuality.

Question 2: What about the Aspectual Morphology - why does it misbehave in counterfactuals/ FLVs? If it is also used up in some sense, how are MG counterfactuals interpreted?

## 5 An analysis of Indo-Aryan Counterfactuals

Of the three observations about counterfactuals made by Iatridou and noted in §4.1, we find that the first two can be made for Indo-Aryan counterfactuals as well.

- Tense/Aspect morphology behaves atypically in conditionals:  
 Individual level predicates combine with Habitual morphology and individual level subjects in counterfactuals, which they do not do otherwise.
- Tense/Aspect morphology behaves atypically in unison:  
 Imperfective/Habitual morphology behaves atypically only in the absence of an overt tense auxiliary.  
 The third observation in §4.1 can not be made for Indo-Aryan.
- The interpretation of counterfactuals in Indo-Aryan does not seem to depend upon the situation aspect of the underlying predicate in the way it does in the languages Iatridou discusses. In particular, in none of the Indo-Aryan languages does there seem to be a FLV form which uses counterfactual morphology.<sup>6</sup>

This divergence from the paradigm proposed by Iatridou is quite surprising given the fact that in other ways (Observation 1 and 2), the Indo-Aryan languages confirm to the general picture. Therefore, in §6, I explore the role of aspect in Hindi counterfactuals. Before that I will discuss differences between languages with respect to the licensing of 'fake' past tense.

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<sup>6</sup>FLV is not a category that one finds often in grammars of Indo-Aryan languages. Some of the languages have an optionality between having 'if [ V-Pfv][ V-Fut]' and 'if [ V-Fut] [ V-Fut]' - the Fut-Fut form is perceived to be more likely than the Pfv-Fut one. So in that sense, the Fut-Fut is the FNV and the Pfv-Fut the FLV.

## 5.1 Licensing *fake* Past Tense

Languages seem to basically agree in the environments where past tense morphology can be interpreted as excluding worlds, rather than times. Across language, we find the following environments permitting interpretation of past tense as excluding worlds: conditionals, exceptives (p-CF but q) and complements of *wish*.

However, it turns out that not all morphology that contributes pastness can be interpreted modally. At least in Hindi and Punjabi, periphrastic tense morphology is incapable of being interpreted modally. Only the covert past tense has this possibility.

## 6 Aspect in Hindi Counterfactuals

### 6.1 The role of habitual aspect

We have seen that Hindi counterfactuals consist of the *imperfective* participle and a covert past tense. Iatridou's analysis tells us why we have a past tense and we can adopt her explanation for Hindi counterfactuals also. To explain the presence of the imperfective in MG counterfactuals, Iatridou's analysis appeals to the fact that in MG the imperfective is unmarked. So, what we see in the antecedent of the verb is just the verb in its unmarked state. With this assumption, nothing more has to be said for MG. However, this explanation is problematic on two grounds:

(i) Crosslinguistically, the imperfective occurs in counterfactuals in many languages for which it cannot be plausibly claimed that the imperfective is any more unmarked than the perfective for e.g. Kashmiri, Marathi, and plausibly Italian and Spanish among others.

(ii) MG internally, Iatridou notes that imperfective morphology in the antecedents of counterfactual conditionals misbehaves. If the imperfective were really default/unmarked, we would not expect it to behave differently in indicative and in counterfactual conditional environments. If the imperfective predicate in the antecedent of a counterfactual conditional can be interpreted perfectly, why is this not possible for an indicative imperfective clause.

I do not adopt Iatridou's analysis of the role of Imperfective aspect in counterfactuals. Instead I relate the presence of imperfective aspect in counterfactuals to the fact that in all the Indo-Aryan languages that use imperfective morphology in counterfactuals, the imperfective aspect can also contribute a generic interpretation. It is in fact striking that in no language is a specialized progressive that lacks a generic interpretation ever used to build a counterfactual meaning. On the other hand, we have languages (Hindi, Punjabi) that use habitual morphology (and not progressive morphology).

I propose the following role for imperfective morphology in counterfactuals: imperfective morphology contributes a generic meaning/generic operator. This generic operator converts whatever it applies on into an individual level predicate (or higher, if applied to ILPs, it yields a Kind Level Predicate).

This is illustrated in the following paradigm:

- (21) a. Ram lambaa hE vs. (yeh) laRke lambe hĒ  
Ram tall PRS these boys tall.Pl PRS.Pl  
'Ram is tall/The(se) boys are tall.'
- b. (\*yeh) laRke lambe ho-te hĒ vs. \*Ram lambaa ho-taa hE  
these boys tall.Pl be-Hab.Pl PRS.Pl Ram tall be-Hab PRS

- ‘Boys are (generically) tall/\*These boys are (generically) tall/\*Ram is (generically) tall.’
- c. Ram biimaar hE vs. (yeh) laRke biimaar hĒ  
 Ram sick PRS these boys sick PRS.Pl  
 ‘Ram is sick/The(se) boys are sick.’
- d. laRke aksar biimaar ho-te hĒ vs. Ram aksar biimaar ho-taa hE  
 boys often sick be-Hab.Pl PRS.Pl Ram often tall be-Hab PRS  
 ‘Boys are often sick/Ram is often sick.’

When the ILP *lambda* ‘tall’ is applied to a bare plural as in (21a), we see that it does not have the generic reading seen in ‘Boys are tall’ - in other words, the bare plural is interpreted existentially. In order to get the ‘Boys are tall’ reading, we need an extra layer of habitual aspect (21b). This raises the type of the ILP ‘tall’ one step and makes it a Kind-Level-Predicate. Not surprisingly, when applied to an individual, we get the ungrammatical sentence in (21b).

- As in Iatridou’s analysis, past tense + ILP gives counterfactuality. Since the *imperfective* aspect makes all propositions irrespective of their situation aspect into ILPs, counterfactual morphology never yields FLV readings. We now have an understanding of why situation aspect does not seem to be relevant for Indo-Aryan counterfactuals.

## 6.2 Situation Aspect and the Unspecified Counterfactual

We have seen so far that in Hindi, situation aspect does not play a role in determining the difference between FLV conditionals and counterfactual conditionals. It may, however, still play a role in determining the temporal interpretation of a counterfactual i.e. present counterfactual vs. past counterfactual.

In (6), we see that Hindi counterfactuals can have various kinds of aspectual morphology, in addition to the counterfactual morphology. There can be perfective counterfactuals (6c), habitual counterfactuals (6e), and progressive counterfactuals (6g). If only counterfactual morphology is present, we get the unspecified counterfactual (6a).

Of these counterfactuals, perfective counterfactuals are interpreted as past counterfactuals. Perfective aspect provides another layer of pastness in the same fashion as the pluperfect does in English.

Habitual counterfactuals and Progressive counterfactuals allow both past and present counterfactual interpretations, depending on the context. So, in the cases where there is an extra layer of viewpoint aspect available, it determines whether the counterfactual gets interpreted as a past or a present counterfactual.

We now come to the unspecified counterfactual, where there is no more viewpoint aspect morphology to be had. In (22), I test whether it is possible to get both present and past counterfactual readings with all kinds of situation aspects.

- (22) a. ILP:Past

agar mĒ jaan-taa [ki is laghu chhatra ke-baare-mē aap itne serious hĒ] to  
 if I knew-Hab that this small umbrella about you so serious be.PRS then  
 mĒ ise haath bhii nahiN lagaa-taa  
 I this-dat hand only Neg contact-Hab

'If I had known that you were so serious about this small umbrella, I wouldn't even have touched it.'

b. ILP:Present

agar mĒ is savaal kaa uttar jaan-taa to mĒ tumhē bataa de-taa  
if I this question Gen answer know-Hab then I you-Dat tell GIVE-hab

'If I knew the answer to this question, I would have told you.'

c. SLP:Present/Past

agar mĒ aap kii jagah ho-taa to agle hafte jaa-taa  
if I you Gen place be-Hab then next week go-Hab

'If I were/had been in your place, I would go/have gone next week.'

d. telic predicate: Past

agar tum prem shabd kaa prayog kar-tii to voh tumhaarii baat nahī  
if you love word Gen use do-Hab then he your thing-said Neg  
maan-taa  
accept-Hab

'If you would have used the word 'love', he wouldn't have accepted the thing you said.'

e. telic predicate: Present - not available

f. atelic: Past

agar tum Mira-se kal angrezi-me baat kar-te to vo bahut khush ho-tii  
if you Mira-with yesterday English-in talk did-Hab then she very happy be-Hab

'If you had talked to Mira in English yesterday, she would have been very happy.'

g. atelic predicate: Present - cannot construct - I want to either use the Progressive Counterfactual or interpret the predicate generically.

It turns out that present counterfactual readings are indeed absent with eventive predicates while they are available for stative predicates.

Note that in English, it is only possible to get FLV readings with simple past tense telic predicates (in the antecedent of a conditional), possible to get both FLV and CF readings with simple past tense atelics and SLPs and only possible to get a CF reading with an ILP.

Since unspecified counterfactuals do not have any tense/aspect specification, it is plausible that they can be freely interpreted as either present or past, as long as the interpretation is counterfactual. Telic predicates have to be interpreted with respect to the future as we can see in the English 'If John crosses the street'. If the counterfactual were located at the Speech point, the earliest possible evaluation time would be in the future. But this would lead to a non-counterfactual reading and so would not be possible. If however, we interpret the counterfactual as a past counterfactual, it is possible to construe the earliest possible evaluation time as still being in the past.

This leaves us with the job of explaining why atelic predicates also seem to lack a present counterfactual reading. Consider (23).

- (23) a. If John walked in the park tomorrow, he would be imprisoned.(FLV)  
 b. If John walked in the park regularly, he wouldn't have fallen ill (CF with generic antecedent)

(23b) is a present counterfactual. Note that the antecedent of (23b) is interpreted generically. A present counterfactual reading does not seem to be available if the predicate is interpreted episodically.

Now, we can see why an unspecified counterfactual cannot be constructed with an atelic eventive predicate in Hindi. Unlike English, Hindi lacks the option of interpreting the antecedent generically. The other option yields a FLV in English (23a) but this option is also not available because of the imperfective/habitual morphology which forces the antecedent to be interpreted counterfactually.

### Data from various Indo-Aryan languages

7

## 7 Effect of situation aspect on interpretation in Counterfactuals

Consider the difference in the interpretation of the following sentences all of which have a past tense antecedent:

- (24) a. If you crossed the river right now, you'd find a pot of gold at the end. (accomplishment (telic), FLV)  
 b. If you won the race, you'd get a medal. (achievement (telic), FLV)  
 c. If you walked in the park yesterday, you would have muddy shoes. (activity (atelic), CF)

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<sup>7</sup>Some naturally occurring counterfactuals

The foll. are from Poon Singh Dabaas's short story 'Bhaavbhiini Shraddhaanjali'

- (1) a. agar mē jān-taa [ki is laghu chhatra ke-baare-mē aap itne serious hē] to mē ise haath  
 if I knew-Hab that this small umbrella about you so serious be.PRS then I this-dat hand  
 bhii nahiN lagaa-taa  
 only Neg contact-Hab  
 'If I knew (?had known) that you were so serious about this small umbrella, I wouldn't even have touched it.'
- b. agar (mujhe) us zamaane ke ye log mil jaa-te to puuchh-taa  
 if me.dat that period Gen these people find GO-Hab then ask-Hab  
 'If I could have met these people from those times, I would have asked them.'
- c. yadi vo bechaaraa parlok-vaasi sun sak-taa to jindaa ho jaa-ne ke-liye machal uṭh-taa  
 if that poor heaven-resident hear can-Hab then living be GO-Ger for rise-Hab  
 'If that poor heaven-resident could hear this, then he would become desirous of being alive.'
- d. (bechaaraa mar ga-yaa, koi baat nahIn), (agar vo) jindaa rah-taa to bhii koi khaas baat nahIn  
 poor die GO-Pfv. some thing Neg if he alive stay-Hab then also some special thing Neg  
 thii  
 be.Pst  
 '(Poor guy is dead, doesn't matter), Even if he was alive, it wouldn't have been something special.'
- e. kaash! yeh shubh ghariii bahut pahle aa ga-yii ho-tii  
 Wish this auspicious moment.f very before come GO-Pfv.f be-Hab  
 'I wish that this auspicious moment had come much earlier.'

- d. If you walked in the park with me later today, you'd realize that its fun. (activity (atelic), FLV)
- e. If John was drunk, he wouldn't be able to walk properly. ( SLP (state), CF)
- f. If John was drunk at the board meeting tomorrow, he would get fired (?? SLP (state), FLV)
- g. If John was tall, he would be hired by the FBI. (ILP (state), CF)
- h. \*If John was tall tomorrow, he would be hired by the FBI. (ILP (state), \*FLV)

Clearly, situation aspect is what decides between whether we get a counterfactual interpretation or a Future Less Vivid interpretation. The question arises then whether situation aspect has any influence on the interpretation of Hindi conditionals with the CF morphology.

## 8 The Morphological marking of the Subjunctive and the Contrafactive in Indo-Aryan languages

The following table shows the morphological form of the verb *be* in the subjunctive and the contrafactive mood respectively.

(25)

Language	Subjunctive	Contrafactive	Tensed <sub>morphologically</sub>	Pst/Prs/Fut	CF-Morph	Gen-Morph
Kashmiri	?āsi	āsihē/-hē	Yes <sub>masica</sub> /?	?Fut	?Fut+ <i>he</i>	Impfv
Punjabi	(hove)	hundā	No	No	Hab	Hab+TNS
Kumauni	NA	NA	Data NA	Data NA	Data NA	Impfv
Nepali	bhane	bhae	Yes <sub>masica</sub> /?	Yes, Past	Prox./Impfv+Pst	Impfv+TNS
Lahnda	hove	hā#	Data NA	Data NA	Data NA	Data NA
Hindi	ho/-ye	hotā/-tā	No	No	Hab	Hab+TNS
Assamese	hoy	he~ ten#	Yes <sub>masica</sub> /?	No	Pfv+ <i>heten</i>	Unsp
Sindhi	hujē	hā#	Yes <sub>masica</sub> /?	CFut	CFut+ <i>hā</i>	Hab
E. Rajasthani	vhai	vhaito	Data NA	Data NA	Data NA	Data NA
Braj	(hōya)	hōtō, hōe	Data NA	Data NA	Data NA	Data NA
Maithili	hōth <sup>i</sup>	rahaita	Data NA	Data NA	Data NA	Data NA
W. Rajasthani	vhe	vheto	Data NA	Data NA	Data NA	Data NA
Awadhi	NA	hōti	Data NA	Data NA	Data NA	Data NA
Bhojpuri	hokhu	hot	Data NA	Data NA	Data NA	Data NA
Gujarati	hoy	hot	No	Past?	Impfv	Unsp/Impfv
Bundeli	hō	hōtō	Data NA	Data NA	Data NA	Data NA
Bengali	-thāke	-(thāktō)	No	Past	Impfv	Unsp/Impfv
Chhattisgarhi	hōai	hōtis	Data NA	Data NA	Data NA	Data NA
Marathi	asāvā, aslā	astā	No	Present?	Impfv	Unsp/Impfv
Oriya	NA	-thāntā	Yes <sub>masica</sub> /?	No	-thāntā	Unsp
Konkani	NA	NA	Data NA	Data NA	Data NA	Data NA
Sinhalese	-tot/-vi?	-ot	Yes	No	?	Impfv

## (26) A reduced table

Language	Subjunctive	Contrafactive	Prog?	Pst/Prs/Fut	CF-Morph	Gen-Morph
Kashmiri	?āsi	āsihē/-hē	N	Fut?	Fut+ <i>he</i>	Impfv
Punjabi	(hove)	hundā	Y	No	Hab	Hab+TNS
Kumauni	NA	NA	Y	Data NA	Data NA	Hab+TNS
Nepali	bhane	bhae	Y	Past	Prox./Impfv+Pst	Hab+TNS
Hindi	ho/-ye	hotā/-tā	Y	No	Hab	Hab+TNS
Assamese	hoy	hẽ ten#	Y	No	Pfv+ <i>heten</i>	Unsp/Hab+PST
Sindhi	hujē	hā#	Y	CFut	CFut+ <i>hā</i>	Unsp/Hab-Impfv+TNS
Bhojpuri	hokhu	hot	N	No	Impfv	Impfv+TNS
Gujarati	hoy	hot	Y	Past	Impfv	Unsp/Impfv+(PRS)
Bengali	-thāke	-(thākto)	Y	Past	Hab	Unsp/Hab
Marathi	asāvā, aslā	astā	Y?	Present?	Impfv	Unsp/Impfv
Oriya	NA	-thāntā	Y	No?	-thāntā	Unsp
Sinhalese	-tot/-vi?	-ot	N	No	?	Impfv

## 9 Notes about the table

### 9.1 Notational Conventions

About the table: the forms followed by a # are indeclinable i.e. they do not agree. Other forms shows agreement. Forms enclosed in parentheses show that the contrast is optional. This table is taken from page 286 of Masica (1992).

The term ‘Impfv’ is used to mean an aspectual form that is ambiguous between a progressive and a habitual interpretation. To refer to the aspectual form that gives only habitual interpretations, the term ‘Hab’ is used. The term ‘Prog’ is used for aspectual forms that only contribute the progressive interpretation.

### 9.2 A red herring

In some cases, for e.g. Hindi, looking at the forms of *ho* ‘be’ in the subjunctive *ho*, and the contrafactive *hotaa*, one might conclude that the subjunctive is either unmarked or a part of the contrafactive. Looking at wider range of verbs shows that this is an idiosyncrasy of the verb *ho* ‘be’ in Hindi. For verbs other than *ho* ‘be’, the subjunctive is marked the morpheme *-ye*. Indeed, the form *hoye* is marginally acceptable.

### 9.3 Unspecified Habituals

Table (25) shows the existence, in several languages, of aspectually unspecified forms getting habitual interpretation for e.g. Marathi, Gujarati, Bengali, Oriya, and Assamese. However, these aspectually unspecified habitual interpretations seem to be restricted to particular tenses in all these languages. In Gujarati, there is an aspectually unspecified form with a present tense auxiliary that receives both a present habitual and progressive interpretation. There is no corresponding past form. To get the past imperfective interpretation, a verb with imperfective aspect needs to be used with a past tense

auxiliary. In Marathi, on the other hand, the aspectually unspecified form is also unspecified for tense and receives a past habitual interpretation. The present habitual interpretation results from imperfective aspect and unspecified tense, while a second past habitual interpretation results from past tense and imperfective aspect.

Bengali, Assamese, and Oriya all have a form unspecified for aspect and tense which receives a past habitual interpretation. Bengali does past habituals with the imperfective but without an overt tense auxiliary. Assamese and Oriya both formally lack past habituals. Assamese has evolved a new form to fill the lack of past habituals in the language.

#### 9.4 Unclear Facts

The facts from Sinhalese are controversial. The *-ot* morphology is merely the conditional morphology and is in opposition to the subjunctive morphology. It is not necessarily counterfactual.

The Assamese/Oriya facts seem incomplete. We would expect to see more kinds of counterfactual conditionals than are shown in the paradigm. The exact morphological makeup of *heten* in Assamese and *thāntā* in Oriya is not clear. My speculation is that they consist of a be-like element and imperfective morphology.

## 10 Counterfactuals in Hindi

The paradigm for various kind of counterfactuals and related habitual sentences is given below in (27).

- (27) a. agar Ram phal khaa-taa  
       if Ram fruit ate-hab  
       'If Ram ate the fruit (CF), ..' (Unspecified Contrafactive, PRCF?)
- b. Ram phal khaa-taa \*(hai/thaa)  
    Ram fruit ate-hab PRS/PST  
    'Ram eats/used to eat fruit.'
- c. agar Ram-ne phal khaa-yaa ho-taa  
    if Ram-Erg fruit ate-Pfv be-hab  
    'If Ram had eaten the fruit (CF), ..' (Perfective Contrafactive, PSTCF?)
- d. \*Ram-ne phal khaa-yaa ho-taa (hai/thaa)  
    Ram-Erg fruit ate-Pfv be-hab PRS/PST
- e. agar Ram phal khaa-taa ho-taa  
    if Ram fruit ate-hab be-hab  
    'If Ram had been eating fruit habitually, ..' (Habitual Contrafactive)
- f. \*Ram phal khaa-taa ho-taa (hai/thaa)  
    Ram fruit ate-hab be-hab PRS/PST
- g. agar Ram phal khaa rahaa ho-taa  
    if Ram fruit ate PROG be-hab  
    'If Ram had been eating the fruit, ..' (Progressive Contrafactive)



- h. \*Ram phal khaa rahaa ho-taa (hai/thaa)  
 Ram fruit ate PROG be-hab PRS/PST

The habitual morphology in the counterfactuals in (27) behaves as if it were *fake*. This can be seen clearly in (28).

- (28) a. \*Ram lambaa ho-taa hai/thaa  
 Ram tall be-hab PRS/PST
- b. agar Ram lambaa ho-taa  
 if Ram tall be-hab  
 'If John had been tall,'
- c. #Ram aaj school jaa-taa hai  
 Ram today school go-hab PRS  
 '#Ram goes to school today (habitually).'
- d. agar Ram aaj school jaa-taa  
 if Ram today school go-hab  
 'If Rah had gone to school today,..'

Individual level predicates such as *lamba* (tall) cannot combine with habitual morphology, as the ungrammaticality of (28a) shows. However, combining an ILP and habitual morphology in the antecedent of a conditional does not lead to ungrammaticality. Instead, the result gets a counterfactual interpretation.

The contrast between (28c) and (28d) demonstrates a similar point. Habitual aspect is not compatible with point adverbial such as *aaj* (today) as the ungrammaticality of (28c) demonstrates. Put in the antecedent of a conditional, the illformedness vanishes. Both these cases, (28)c and d are instances where the habitual morphology behaves atypically. It behaves as if it were no there.

## 11 Tenselessness and Counterfactuality

Are counterfactual clauses in all NIA languages tenseless? No.

Are counterfactual clauses in most NIA languages tenseless? Yes.

'Tenseless' is to be interpreted as not marked by a form that is interpreted as either Past, Present, or Future on its own. The languages marked 'DATA NA' are unlikely to constitute counterexamples because each of these languages is closely related to a language with a tenseless counterfactual. Still they should be investigated if possible. Nepali, a counterexample, is fairly closely related to Hindi.

### 11.1 Exceptions One and Two: Kashmiri and Sindhi

The exceptions that exist are Nepali, Sindhi, and Kashmiri. The case of Kashmiri and Sindhi is discussed below. In Kashmiri, to get counterfactuality, we need the morpheme *he* in combination with either the presumptive auxiliary *āsi* or the verb in the future tense.

### 11.1.1 Kashmiri facts

Kashmiri is one of the few Indo-Aryan languages with a perfect and it uses the perfect in counterfactuals. However, unlike English it can use other aspectual forms in counterfactuals also. The exact morphology is given below in (29). The forms of the presumptive and the future have also been given because they interact with the marking of counterfactuality.

- (29) a.      Contrafactive Perfect  
           TM:Cfv (*āsihē*) + PC-I + V + Asp:Perfect (-mut) + AC  
           1sg. *āsihē āmut* (Had I come)
- b.      Contrafactive Imperfective  
           TM:Cfv (*āsihē*) + PC-I + V + Asp:Imperfective(-*ān-*) + (X)  
           1sg. *āsihē yivān* (Had I been coming)
- c.      Contrafactive Unspecified  
           V + Asp:Unspecified (ZERO) + PC-(I) + TM:Cfv (*hē*) + PC-I  
           1sg. *yimihē* ((if) I had come)
- d.      Presumptive Imperfective  
           TM:Presumptive (*āsi*) + PC-I + V + Asp:Imperfective (-*ān-*) + (X)  
           *āsi yivān* (I probably, may come, I will be coming)
- e.      Presumptive Perfect  
           TM:Presumptive (*āsi*) + PC-I + V + Asp:Perfect (-mut) + AC  
           1sg. *āsihē āmut* (I may/shall/must have come)
- f.      Future, ?Future Conditional  
           V + Asp:Unsp (ZERO) + PC-I + TM:Unsp (ZERO)  
           1sg. *yimi* (I'll come; (if) I come)

It seems to be the case that the marker of counterfactuality is the morpheme *-he*. This is strongly suggested by the unspecified contrafactive (Cf. (29c)). *āsi* is, presumably, the equivalent of Hindi *ho* which is selected by the presumptive and also the contrafactive. Masica treats Kashmiri counterfactuals as if they were morphologically marked for tense. Note that in (29c), he puts *he* under TM (TenseMood). An examination of the paradigm reveals that *he* is neither the marker for the present, nor the past tense. It is interesting though that the Contrafactive Unspecified, (Cf. (29c)), contains the future. It is possible that to express counterfactuality in Kashmiri, one needs, in addition to *he*, either a verb marked for the future, or the auxiliary *āsi*, which is also used in the presumptive.

### 11.1.2 Sindhi facts

The Sindhi facts closely resemble the Kashmiri facts. Unlike the rest of NIA, the unspecified contrafactual is built on the contingent future rather than the imperfective participle. The actual forms can be seen in (30) below.

- (30) a.      Contrafactive Unspecified

V + Asp:Unsp (ZERO) + PC-I + TM:Cfv (*hā*) + (X)

1sg. *acā̃ hā* (Had I come)

b. Contingent Future

V + Asp:Unsp (ZERO) + PC-I + TM:Unsp (ZERO)

1sg. *acā̃* ((if,that) I come)

### 11.1.3 What is the Presumptive?

The term ‘Presumptive’ is used to refer to the following cases (Cf. (31a,b, and c). The subjunctive and the future are also shown in ((31)d, and e) to show that the future is morphologically complex and consists of the presumptive and the subjunctive.

- (31) a. Ram school *jaa-taa ho-gaa*  
 Ram school *go-hab be-GAA*  
 ‘Ram probably goes/must<sub>epistemic</sub> go to school.’ (Presumptive Habitual)
- b. Ram school *jaa rahaa ho-gaa*  
 Ram school *go PROG be-GAA*  
 ‘Ram probably goes/must<sub>epistemic</sub> go to school.’ (Presumptive Progressive)
- c. Ram school *ga-yaa ho-gaa*  
 Ram school *go-Pfv be-GAA*  
 ‘Ram must<sub>epistemic</sub> have gone to school.’ (Presumptive Perfective)
- d. *shaayad* Ram school *jaa-ye*  
*may-be/possibly* Ram school *go-sbjv*  
 ‘Maybe, Ram will go to school.’ (Subjunctive)
- e. Ram school *jaa-ye-gaa*  
*may-be/possibly* Ram school *go-sbjv-GAA*  
 ‘Ram will go to school.’ (Future)
- f. Ram *khush ho-gaa*  
 Ram *happy be-Pfv*  
 ‘Ram will be happy.’ (Future/?Presumptive)

Speculation: I have noted earlier that *be.subjunctive* in Hindi has the same form as bare *be ho*. Hence it is possible that the presumptive and the future are identical in Hindi. I will look at those dialects of Hindi that maintain the distinction to check this. The agreement paradigm of the presumptive and the simple future support this contention. (Cf. Table 2).

(32)

Num	1P.M	1P.F	2P.M	2P.F	3P.M	3P.F
SG	<i>hōō-gaa/jaa-yōō-gaa</i>	<i>hōō-gii/jaa-yōō-gii</i>	<i>ho-gaa/jaa-ye-gaa</i>	<i>ho-gii/jaa-ye-gii</i>	<i>ho-gaa/jaa-ye-gaa</i>	<i>ho-gii/jaa-ye-gii</i>
PL	<i>hō-ge/jaa-yē-ge</i>	<i>hō-gii/jaa-yē-gii</i>	<i>ho-ge/jaa-yo-ge</i>	<i>ho-gii/jaa-yo-gii</i>	<i>hō-ge/jaa-yē-ge</i>	<i>hō-gii/jaa-yē-gii</i>

The *-ye* form, which is the marker of the subjunctive, inflects exactly as it would do in isolation. Even though the *-ye-* form cannot be seen in the presumptive, its effects can still be seen on the preceding

*ho*, in the form of vowel lengthening and nasalization. The *-ye* form inflects for person and number, while *-gaa* only inflects for number and gender. Since participial (= V+Asp) forms of verbs only inflect for number and gender, this fact about *-gaa* can be taken as evidence for its origin from a participial form of the verb. Masica notes that it derives from MIA *gaa*, OIA *gata*, past participle of ‘go’.

If the presumptive and future turn out to be instances of the same form, it would give language-internal evidence for the future being a modal.

With respect to the Kashmiri future, Masica writes:

“It does not distinguish Definite from Contingent Future (a matter which affects the T/M auxiliary we are *still* calling “Presumptive” in this paradigm).” (Pg. 297, italics mine).

Thus, it is likely that the forms under the labels ‘Presumptive’ and ‘Future’ should be treated alike.

Unlike Hindi, where the future/presumptive consists of the subjunctive along with *-gaa*, in Kashmiri the ‘subjunctive’ functions as future. Masica writes:

As noted earlier, the unspecified “Old Present”, on being crowded out of its old role by newer formations, was left with a range of vaguely future residual meanings, which are retained in most NIA languages as the Contingent Future (“Simple Subjunctive”). In Kashmiri and certain other Northwestern languages it came to function as Future per se; (Pg. 288)

In contrast, Sindhi, which uses essentially the same system for counterfactuality as Kashmiri, does have a ‘definite’ future distinct from the ‘contingent’ future used in the counterfactual. The ‘definite’ future in Sindhi is built upon the imperfective participle.

## 11.2 Exception Two: Nepali

Nepali constitutes the other exception. The relevant cases, along with some related cases, are given below in (33).

- (33) a. Proximate Contrafactual  
 V + Asp:Prox (*-ne*) + TM:P1 (*thiyo*) + PC-IIb  
 1sg. āu-ne thie~ (I would have come)
- b. Proximate Future  
 V + Asp:Prox (*-ne*) + TM:Pr (*cha*) + PC-IIa  
 1sg. āu-ne-chu (I shall come)
- c. Past Continuous 1-A  
 V + Asp:Impfv-1a (-~ *dai*) + (X) + TM:P1 (*thiyo*) + PC-IIb  
 1sg. āu-~ dai thie~ (I was coming)
- d. Past habitual (and Contrafactual)  
 V + Asp:Impfv-1 (-(*n*)-) + (X) + TM:P2 (*-thyo*) + PC-IIb  
 1sg. āu-~ -the~ (I used to/would come)

(33b) is shown to give another illustration of Proximate Aspect. I return, shortly, to the question of what Proximate Aspect is. (33c) shows that the counterfactual in (33a) does indeed have a past tense. About Proximate aspect, Masica writes:

The term *Proximate* for the Aspect forms in nos. 3 and 4 ((33) b, and a above) is borrowed from Verma and Sharma (1979b). Matthews (1984) calls the forms in question the *Infinitival Future* and *Infinitival Conditional*. Korol'ev calls no. 3 ((33)a) the *Indefinite Future* which is something of a misnomer since this is the most definite of the Nepali futures (Matthews 1984:226). (from Pg. 315)

Both the counterfactuals use past tense. They differ in aspect, (33a) uses Proximate aspect while (33d) uses imperfective aspect.

The information in Masica is not enough to say more. I should consult a grammar/ native speakers.

## 12 Punjabi

Punjabi uses the present 'imperfective' participle to mark both habitual meanings and counterfactuality.

Reference: Tej K. Bhatia: Punjabi - Cognitive-Descriptive Grammar. Routledge Descriptive Grammar Series, Routledge, London, 1993.

It is unclear to me why the present participle is named as it is - it does not independently have a present interpretation and in the one case where it occurs without the tense auxiliaries, it contributes a counterfactual interpretation. However, since other terms are also problematic - imperfective is not good because the form lacks a progressive interpretation, habitual is not good because that is not the meaning in the counterfactual - I will continue to use the term present participle.

### 12.1 Present/Past Habitual

Present Habitual = Present Participle + Present Tense Auxiliary

Past Habitual = Present Participle + Past Tense Auxiliary

(34) Present 'Imperfective' Participle

	Singular	Plural
Masculine	-daa	-de
Masculine	-dii	-diãã

(35) Present Tense Copula *hoṇaa* 'to be'

	Singular	Plural
1st Person	(h)ãã	(h)ãã
2nd Person	(h)ãĩ	(h)o
3rd Person	(h)ai	ne/han

- (36) a. m̄ai aan-daa (h)ãã  
 I come-PrsPart.m.sg be.Prs.1  
 ‘I come.’
- b. ó sakuul jaan-daa ai  
 He school go-PrsPart.m.sg be.Prs.3sg  
 ‘He (habitually) goes to school.’

(37) Past Tense Copula *hoṇaa* ‘to be’

	Singular	Plural
1st Person	sii/sãã	sii/sãã
2nd Person	sii/sãi	sii/so
3rd Person	sii	sii/san

- (38) ó sakuul jaan-daa sii  
 He school go-PrsPart.m.sg be.Pst.3sg  
 ‘He used to go to school.’

## 12.2 Progressive

The present ‘imperfective’ participle can not be interpreted as a progressive, hence the quotes around ‘imperfective’.

The progressive is done periphrastically by the use of the auxiliary *rái* which is homophonous with the verb *rái* ‘to stay/live’.

Progressive = Verb-stem + Past Participle of *rái* + Tense Auxiliary

- (39) m̄ai so ríaa ãã/sãã  
 I sleep Prog.m.s be.Prs.1/be.Pst.1  
 ‘I am/was sleeping.’

## 12.3 Counterfactual and other Conditionals

The present participle without any tense auxiliary gives a counterfactual interpretation. The counterfactual can be of the following kinds:

1. Simple counterfactual = Present Participle of the Verb
2. Imperfective counterfactual = Present Participle of the Verb + Present Participle of *be*
3. Perfective counterfactual = Past Participle of the Verb + Present Participle of *be*
4. Progressive counterfactual = Progressive Participle of the Verb + Present Participle of *be*

Counterfactual morphology appears in both the antecedent and consequent.

- (40) agar ó aan-daa, te m̄ai jaan-daa  
 if he come-PrsPrt then I go-PrsPrt  
 ‘If he would have come, I would have left.’

Other conditionals:

- (41) a. agar ó aavegaa/aan-daa ai, te m̄i náĩ páṛāāgaa  
 if he come-fut.3ms/come-PrsPrt.ms be.Prs.3 then I neg. read-fut.1ms  
 ‘If he comes, I will not read.’
- b. agar ó aaiaa, te m̄i páṛāāgaa  
 if he come-Pfv.ms then I read-fut.1ms  
 ‘If he comes, I will read.’

Note that (41) is an example where morphology that is otherwise interpreted as past, gives a future interpretation.

Conclusion: Punjabi is like Hindi w.r.t the counterfactuality facts

## 13 Marathi

The Marathi aspectual system differs considerably from the Hindi one. Still, the following commonality surfaces:

both the antecedent and the consequent clause receive counterfactual morphology.

References:

1. I.M.P. Raeside and B. V. Nemade, Marathi Reading Course, SOAS, University of London, 1991.
2. Ganpatrao R. Navalkar, The Student’s Marathi Grammar, Education Society’s Press, Byculla, Bombay, India, 1880.
3. Alfred Master, A Grammar of Old Marathi, Oxford, Clarendon Press, 1964.

### 13.1 Simple Present (SP)

Simple Present Morphology basically consists of the present participle (imperfective) plus person/number/gender endings.

	Singular.m	Singular.f	Singular.n	Plural
1st Person	-tō	-tē		-tō
2nd Person	-tos	-tes		-tāā
3rd Person	-to	-te	-tē	-taat

The simple present has two possible meanings:

- (42) a. mii jaatō  
 I go-SP.1ms  
 ‘I’m off/I’m just going.’ (Immediate Future)
- b. mii nehmi/roj jaatō  
 I always/every-day go-SP.1ms  
 ‘I go always/every day.’ (Habitual Present)

Note the absence of the progressive reading.

### 13.1.1 Immediate Present - Progressive Interpretation

The present progressive is conveyed by the Simple Present plus the present tense of the verb *be*.

The verb *be* has a defective paradigm. It's present tense forms are given below.'

	Singular	Plural
1st Person	aahē	aahō
2nd Person	aahes	aahāā
3rd Person	aahe	aahet

### 13.1.2 Negative of the Present Tense

The negative of the present tense is formed by the present participle plus the negative present tense auxiliary (neg + be). The present participle is indeclinable and consists of the verb plus *-t*.

	Singular	Plural
1st Person	jaat naahīī	jaat naahīī
2nd Person	jaat naahīīs	jaat naahīī
3rd Person	jaat naahīī	jaat naahīit

The distinction between the immediate present (progressive) and habitual present is lost in the negative. Thus the following sentence is ambiguous.

- (43) mii puṇyaalaa jaa-t      naahīī  
 I    Pune-to    go-PrsPart Neg.be.Prs  
 'I'm not going to Pune/I never go to Pune.'

## 13.2 Past Tense, Present Perfect, Pluperfect

The present perfect and the pluperfect are based on the past tense. The conjugation of the verb *go* in the simple past tense is given below:

	Sng.m	Sng.f	Sng.n	Pl.m	Pl.f	Pl.n
1st Person	gelō	gelē		gelō	gelō	gelō
2nd Person	gelaas	geliis		gelāā	gelāā	gelāā
3rd Person	gelaa	geliī	gelē	gele	gelyaa	geliī

The present perfect consists of the past tense plus the present tense auxiliary.

The negatives of the present perfect and the simple past look identical consisting of the simple past tense plus the negative present tense auxiliary.

### 13.2.1 The Past tense of *be*

The verb *be* has a defective paradigm in the past, which is based on the verbal stem *ho* which in other contexts means become. The endings consists of *-t* plus the past tense person/number/gender endings.



	Sng.m	Sng.f	Sng.n	Pl.m	Pl.f	Pl.n
1st Person	hotō	hotē		hotō	hotō	hotō
2nd Person	hotaas	hotiis		hotāā	hotāā	hotāā
3rd Person	hotaa	hotii	hotē	hote	hotyaa	hotīī

The endings in the above paradigm are also used in counterfactual environments.

The Pluperfect consists of the past tense plus the past tense auxiliary.

The Imperfect tense consists of the present participle plus the past tense auxiliary.

### 13.3 The Future

	Singular	Plural
1st Person	-en/-iin (tr.)	-ūū
2nd Person	-shiil	-aal
3rd Person	-el/-iil (tr.)	-tiil

The negative of the future is formed by adding the invariable ending *-ṅaar* to the verb stem plus the negative present tense auxiliary.

### 13.4 The verb *as* ‘be’

- This verb, both affirmative and negative, may act as the habitual substantive ‘(not) to exist’, ‘(not) to be habitually’, in contrast with the simple substantive.

- (44) a. pratyek gharaamaagē ek vihiir aste  
every house-behind one well AS(BE).SP.3sg  
‘There is a well (always to be found) behind each house.’
- b. pratyek gharaamaagē ek vihiir aahe  
every house-behind one well PRS.3sg  
‘Every house has a well behind it.’

- With the present participle of the main verb, the simple present of *as* makes a rather literary and emphatic habitual present.

- (45) uṭhalyaabarobar to snaan kariit as-to  
upon-getting-up he bath do-PrsPrt AS(BE)-SP.3ms  
‘He (regularly) bathes immediately after getting up.’

Note that the ordinary habitual present would just have the main verb in the simple present.

- The future of *as* can follow various forms of the main verb in Past, Present or very rarely future to convey a mood of doubt, a statement of probability rather than a definite one - the presumptive. (Pg. 83 of a Marathi Reading Course)

Note the epistemic use of the future.

- *as-laa*, the past tense of *as* is only used in subordinate clauses for e.g. in conditionals.

- (46) a. tumchē kaahii kaam aslē, tar miich kariin  
you-with some work be.Pst.3sg.n then I do-fut.1sg

‘If you’ve got any job, I’ll do it.’

- b. tumchē kaahii kaam asel, tar miich kariin  
 you-with some work be.Fut.3sg then I do-fut.1sg

‘If maybe you’ve got any job, I’ll do it.’

### 13.5 Habitual Pasts

- There is non-periphrastic habitual past but it is highly literary.

	Singular	Plural
1st Person	basē/kariī	basūū*/karūū
2nd Person	basas*/kariis*	basāā*/karāā*
3rd Person	base/karii	basat/kariit

- Habitual Past with Auxiliary

This consists of the present participle plus the regular morphological past habitual (see above) of the auxiliary *as* ‘be’.

However, since the past habitual is itself very literary, the habitual past also has a rather formal and old-fashioned ring to it esp. in the 2nd person.

The modern colloquial simply uses the verb plus *-aaychaa* plus person/number/gender inflection without an auxiliary.

### 13.6 Conditionals

- The regular Past forms of *as* can function as the verb ‘to be’ in conditional clauses. They can also replace the auxiliary *aahe*. In this environment, the regular past forms of *as* alternate with the regular future forms of *as* which carry an extra shadow of doubt. (pg. 131)
- With Past endings similar to those of *hotaa*, *as* ‘to be’ is used in both the antecedent and the consequent of the conditional to express a counterfactual.

- (47) a. mii tujhyaa jaagīi asto tar (mii) tyaalaa maarlē astē  
 I your place-in be-Cond.1ms then I him hit.Pst.3ns be-Cond.3ns  
 ‘If I’d been in your place, I would have hit him.’
- b. tyaachyaajavaḷ paise aste tar gaariinē aalaa astaa  
 he-near money be-Cond.3np then train-in come-Pst.3ms be-Pst.3ms  
 ‘If he had any money, he would have come by train.’
- c. aamhii lavkar aalo nasto tar gaarii chuklii astii  
 we early come-Pst.1mp neg.be-Cond.1mp then train miss-Pst.3fs be-Cond.3fs  
 ‘If we wouldn’t have come early, we would have missed the train.’

- Non-conditional counterfactuals

- (48) a. tyaavelīi mii aajaarii paḷo asto  
 at-that-time I ill fell-Pst.1ms be-Cond.1ms  
 ‘at that time, I nearly fell ill.’

- b. are! hē sarva saamaan haataatoon paṛlē                      astē  
 help I all stuff drop-Pst.3ns be-Cond.3ns  
 ‘Help, I nearly dropped all this stuff.’
- c. mii tulaa paise paṛhvale aste,                      paṇ mii tujhaa patta visarlo  
 I you-to money send-Pst.3np be-Cond.3np but I your address forget.Pst.1ms  
 hoto  
 be.Pst.1ms  
 ‘I would have sent you money but I’d forgotten your address.’
- d. tohii aalaa astaa,                      paṇ tyaalaa taap aalaa aahe  
 he.emph come-Pst.3ms be-Cond.3ms but he-to fever be.Prs  
 ‘He would have come too, but he’s got fever.’

The counterfactual morphology can also appear directly on the main verb:

- (49) javaḷ paise aste                      tar to gaariine yetaa  
 money be-Cond.3mp then he train-by come-Cond.3ms  
 ‘If he had money on him, he would come by train.’

• FLVs are expressed by using a past tense in the antecedent as opposed to using a future which yields a FNV.

- (50) a. to yeiil                      tar mii jaaiin  
 he come-fut.3ms then I go-fut.3ms  
 ‘If he comes, I’ll go.’ (Fut, Fut)
- b. to aalaa                      tar mii jaaiin  
 he come-Pst.3ms then I go-fut.3ms  
 ‘If he came, I’d go.’ (Pst, Fut)
- c. paaus paṛel                      tar aapaṇ thaambuu  
 rain fall-Fut.3s then we stop-fut.3mp  
 ‘If it rains, we’ll stop.’
- d. paaus paṛlaa                      tar aapaṇ thaambuu  
 rain fall-Pst.3s then we stop-fut.3mp  
 ‘If it rained, we’d stop.’

questions: in english FLVs, past tense is marked in both clauses (as in counterfactuals), this is not the case here.

The authors are somewhat unclear about the distinctions between these two kinds of conditionals - check with native speakers.

However, they do write: Hypothetical conditions in Present and Future, that is conditions that are not totally excluded but which expect that the condition will not be fulfilled, are dealt with in speech by the normal Past...Future construction. The foll. example is given:

- (51) tuu maajhyaakade laksh dilē                      tar chuuk karṇaar naahiis  
 you me..                      hear-Pst then mistake do-fut.inf neg.be.Prs.2ms  
 ‘If you listened to me, you wouldn’t make mistakes.’

• Confusion: On pg. 132, the authors note: Marathi does not clearly deal between Hypothetical Conditions in the Past and the Present and one meets many examples like the following from a recent novel which you might translate either way.

- (52) haa banglaa sajavlaa tar mumbaichyaaa banglyaanchyaa pangtiit dimaakhaane  
 this bungalow decorate-Pst.3ms then Mumbai-gen bungalow-Gen  
 baslaa astaa  
 -Pst.3ms be-cond.3ms

‘If you did/had done it up, this bungalow could take/have taken its place proudly in the ranks of Bombay’s bungalows.’

## 14 Maithili

References:

Ramawatar Yadav: A Reference Grammar of Maithili, Trends in Linguistics, Documentation II, Mouton de Gruyter. 1996.

### 14.1 Aspect

Maithili has three aspects:

Perfective: *-ne* for transitive verbs and *-3l* for intransitives

- (53) a. ram kh3e-ne 3ich  
 Ram eat-Pfv Aux-Prs-(3NH)  
 ‘Ram has eaten.’  
 b. ram kh3e-ne ch-3l  
 Ram eat-Pfv Aux-Pst-(3NH)  
 ‘Ram had eaten.’  
 c. ram kh3e-ne r3h-3t  
 Ram eat-Pfv Aux-Fut-(3NH)  
 ‘Ram will have eaten.’  
 d. ram ae-l 3ich  
 Ram come-Pfv Aux-Prs-(3NH)  
 ‘Ram has come.’  
 e. ram ae-l ch-3l  
 Ram come-Pfv Aux-Pst-(3NH)  
 ‘Ram had come.’  
 f. ram ae-l r3h-t-ah  
 Ram come-Pfv Aux-Fut-(3NH)  
 ‘Ram will have come.’

It can be seen in the above examples that the present perfect, pluperfect and the future perfect are based on the perfective participle.<sup>8</sup>

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<sup>8</sup>Note the difference in agreement between transitives and intransitives in the perfective. Such a difference does not exist in the imperfective.

Imperfective: *-3it*

- (54) ram kha-it ch-3ith/ ch-3l-ah/ r3h-t-ah  
Ram eat-Impfv Aux-Prs-(3H) Aux-Pst-(3H) Aux-Fut-(3H)  
'Ram eats/Ram is eating.'  
'Ram was eating/Ram used to eat.'  
'Ram will be eating.'

Progressive: *r3h3l*

The progressives with *r3h3l* are actually the perfect progressives. The simple progressives being constructed with the imperfective participle.

- (55) ram kha r3h3l ch3ith/ ch3lah  
Ram eat Prog Aux-Prs-(3H) Aux-Pst-(3H)  
'Ram has been eating/ Ram had been eating.'

There seems to be a constraint against forming the future perfect of the progressive. However, there also seem to be exceptions to this constraint. (Cf. footnote 29 on pag. 385 of Yadav (1996))

## 14.2 Tense

Past Tense = V+Past-morph (*-3l-*) +Person-endings

<sup>9</sup>

- (56) r3mes bhoj3n k3e-l-3inh  
Ramesh food do-Pst-3H  
'Ramesh ate.'

Future = V+Future-morphology (*-3b-* for 1st and 2nd person, *-3t-* for 3rd person)+Person-endings

- (57) 3hā kailh jae-b  
You(H) tomorrow go-Fut-(2H)  
'You will leave tomorrow.'

Present Habitual, Present Progressive = V+Imperfective + Present-tense-auxiliary+person-endings

- (58) tō ja-it ch-ē  
you(NH) go-Impfv Aux-Pres-(2NH)  
'You go/You are going.'

The verb in the imperfective has both a habitual and a progressive interpretation.

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<sup>9</sup>The past tense morpheme is just *-3l-* - it goes both with transitives and intransitives. In doing so, it differs from the perfective morpheme which is *-ne* for transitive verbs and *-3l* for intransitives. Puzzling.

### 14.3 The Auxiliaries

the auxiliary occurs after the aspect marker and the tense, mood, and agreement morphology appears on the auxiliary. The auxiliary forms are listed below:

Present Tense:

*3ich* - 3NH

*ch-* - elsewhere

Past Tense: *ch-*

Future Tense:

*r3h-* (for the temporal use)

*ho* (for the epistemic use)

When combined with future morphology, *r3h-* seems to only yield a temporal future interpretation. On the other hand, when combined with future morphology, *ho* yields a possibility/modal interpretation reminiscent of the presemptive in Hindi. It seems though that the forms with *ho* also have a temporal future interpretation.

- (59) o      uṭh-3l   hoe-t-ah  
he(H) rise-Pfv Aux-Fut-(3H)  
'He may have gotten up.' (lit. 'He will have gotten up.')

### 14.4 Counterfactual Morphology, Conditionals

#### 14.4.1 Non-CF conditionals

Maithili displays a contrast between FLV and FNV conditionals - the former have past morphology in their antecedents and the latter future morphology.

- (60) a. jČ ehã   p3ṛh-3it   ch-i                      t3   bes   3ich  
if you-H read-Impfc Aux-Prs-(2H) then good is-(3NH)  
'If you study, then it is good.' (Prs, Prs)
- b. jČ h3m ṭhaṛh   bhe-l-3hũ                      t3   3hã   cheka   jae-b  
if I        stand become-Pst-(1) then you-H block go-Fut-(2H)  
'If I stood, you would be blocked.' (Pst, Fut) (FLV)
- c. jČ o   c3l-t-ah                      t3   h3m-hũ   c3l-3b  
if he walk-Fut-(3H) then I-Emph walk-Fut-(1)  
'If he goes, then I will go, too.' (Fut, Fut) (FNV)

#### 14.4.2 Counterfactual Conditionals

Counterfactual conditionals are marked with counterfactual morphology in both the antecedent and consequent clauses. Tense distinctions are not shown, but the honorificity distinctions are obligatorily maintained.

Person, Honorificity Level	Form
1/2H	-it-3hũ (-it-i)
2MH	-it-3h
2NH	-it-ē (-it-e)
3H	-it-3ith
3NH	-(3)it-0

Yadav treats *-it* as the marker of counterfactuality (he calls it the marker of conditional mood). The marker of imperfective aspect is *3it*. It is unclear to me whether the conditional constitutes an independent morpheme from the imperfective. The deletion of the schwa could be triggered by the addition of the person endings. This line of thought gets supported by the fact that in the 3NH, where the person endings are null, the schwa can be present.

- (61) a. jĀ b3rjha ho-it t3 khub dhan ho-it  
if rain be-Cond-(3NH) then much paddy be-Cond-(3NH)  
‘Had it rained, the paddy would have grown in plenty.’
- b. jĀ 3hā puja k3ir-t-3hũ t3 h3m-hũ k3ir-t-3hũ  
if you-H worship do-Cond-(2H) then I-emph do-Cond-(1)  
‘Had you worshipped, I would have too.’
- c. jĀ o h3m-3r bat suin-t-3ith t3 hun-ka ena n3i ho-it-3inh  
if he-H I-Gen talk hear-Cond-(3H) then he.H-Dat this-way not be-Cond-(3H)  
‘Had he listened to me, then it wouldn’t have been this way to him.’

Like Hindi, the tense morphology is absent in the counterfactual. In contrast with Hindi, the counterfactual morphology does not just consist of the imperfective participle - it also includes person endings. (More examples of counterfactuals can be found on Pg. 371, and 372 of Yadav)

## 15 Bengali Tense and Aspectual Forms

Bengali does not show agreement for number and gender. The verb agrees with the subject in person and also in honorific status.

### 15.1 Simplex forms

Under this heading, I list forms which are marked purely morphologically, i.e. the marking cannot be decomposed into smaller atoms.

#### 15.1.1 Simple Present, Subjunctive (SP)

The simple present receives a generic interpretation.

(62)

Person	1st	2nd	3rd
Sg./Pl.	poṛ-i	poṛ-o	poṛ-e
Honorific	NA	poṛ-iish	poṛ-en

- (63) a. aami (boi) por-i  
I/We book read-1  
'I/We read.'
- b. tumi (boi) por-o  
you/you-people book read-2  
'You/You guys read.'
- c. ora (boi) por-e  
s/he/they book read-3  
'S/he/They read.'
- d. tooi (boi) por-iish  
You(hon.) book read-2.hon  
'You (hon.) read.'
- e. onara (boi) por-en  
S/he(hon.) book read-3.hon  
'S/he (hon.) read.'

It seems, though, that the simple present morphology also functions as a subjunctive in complements of verbs like 'want'.<sup>10</sup>

- (64) aami chaa-i [je Ram phol khaa-e]  
I want-SP.1 that Ram fruit eat-SP.1  
'I want that Ram eat the fruit.'

Masica notes:

As in most NIA languages where the Old Present retains its primary function, it also functions as a contingent future ("Simple Subjunctive"): *āshe* apart from the present habitual, 'he come' also means 'he may come', '(if) he comes'. (Pg. 311)

The Simple Present morphology can also be used in conditionals.<sup>11</sup>

- (65) [jodi Ram phol khaa-e] [tahole aama-ke phone kor-o] (Bengali)  
if Ram fruit eat-SP.3 then me-dat phone do-IMP.2
- [agar Ram phal khaa-ye] [to mujhe phone kar-naa] (Hindi)  
if Ram fruit eat-sbjv then me.dat phone do-IMP
- 'Call me if Ram eats the fruit.'

Unlike in Hindi, where subjunctive conditionals have a restricted distribution and interpretation, in Bengali subjunctive/SP conditionals have a wider range of interpretations.<sup>12</sup>

<sup>10</sup>But could it be that Bengali just doesn't have a subjunctive - try tests with adverbs that would force a non-generic reading. The Simple Present only has a generic interpretation. So if the SP in the complement of 'want' is compatible with point adverbials, it would show that the SP has two uses.

<sup>11</sup>the morphology on kor in (65) could be either IMP.2 or SP.2. Check by raising honorific level.

<sup>12</sup>(66) seems to indicate either (i) the SP in the antecedent of a conditional is fake because of the presence of the point adverbial, or (ii) the SP in the antecedent is the subjunctive. Get control sentences of the form 'aami aaj shawkaal-e boi por-i' -these should be bad.



(66) [jodi Ram aaj shawkaal-e school-e jaa-e] [tahole medal paa-be] (Bengali)  
 if Ram this morning-Loc school-Loc go-SP.3 then medal get-FUT.3

[agar Ram aaj subah school jaa-yegaa] [to (voh) medal paa-yegaa] (Hindi)  
 if Ram this morning school go-FUT then he medal get-FUT

‘If Ram goes to school this morning, he’ll get a medal.’

Note that Bengali uses the SP where Hindi uses the FUT. Not only that, Bengali cannot use the FUT (as noted above) and Hindi cannot use the morphological equivalent of the Bengali SP, the subjunctive, to get the interpretation in (66).<sup>13</sup>

Bengali also uses the SP morphology in epistemic conditionals. (Cf. (67)).

(67) [jodi Ram roj school-e jaa-e] [tahole medal paa-be] (Bengali)  
 if Ram daily school-Loc go-SP then medal get-FUT.3

[agar Ram roj school jaa-taa hai] [to (vo) medal paa-yegaa] (Hindi)  
 if Ram daily school go-hab PRS then he medal get-FUT

‘If Ram goes to school everyday, he’ll get a medal.’

Hindi uses considerably different means to mark the same meaning.

The Bengali SP morphology behaves, quite remarkably, like the English simple present - only generic reading in isolation, non-generic reading in the antecedent of a conditional, where it can produce either an instruction or an epistemic conditional.

### 15.1.2 Future (FUT)

	Person	1st	2nd	3rd
(68)	Sg./Pl.	poṛ-bo	poṛ-be	poṛ-be
	Honorific	NA	poṛ-bi	poṛ-ben

Interestingly, Bengali does not permit future in the antecedent of a conditional. In this respect, it behaves more like English, which has a similar restriction, and not like Hindi, which allows future in the antecedent of a conditional.

### 15.1.3 Simple Perfective (PFV)

	Person	1st	2nd	3rd
(69)	Sg./Pl.	poṛ-laam	poṛ-le	poṛ-lo
	Honorific	NA	poṛ-li	poṛ-len

Bengali also does not permit perfective morphology in the antecedent of a conditional. More precisely, it does not seem to permit sentences like (70).

<sup>13</sup>What characterizes the distinction that Hindi makes? After all in both cases, the conditional gets a future interpretation.

- (70) [jodi Ram boi poṛ-lo]  
if Ram book read-Pfv

However, we shall see shortly that there are cases of perfective morphology appearing in the antecedent of a conditional. The past forms of temporal auxiliaries are basically their perfective forms and these can occur in the antecedent of a conditional.

#### 15.1.4 Imperative (IMP)

(71)

Person	1st	2nd	3rd
Sg./Pl.	NA	poṛ-o	poṛ-uuk
Honorific	NA	poṛ/poṛuun	poṛ-uuk

### 15.2 Complex Forms

The complex forms are marked periphrastically, usually by a combination of the simplex forms and the use of the two auxiliaries *thak* and *chh*.

#### 15.2.1 Present Continuous (PRC)

About the Bengali continuous, Masica notes:

In the colloquial continuous, the High stem itself (<sup>H</sup>) is all that remains of the aspect marker (for e.g. *shone-e* ‘he, she listens’ vs. *shun-e* ‘he, she is listening’). (Pg. 310)

So the present continuous consists of the high verb stem (can’t be seen here) and the auxiliary *chh* in the simple present.

(72)

Person	1st	2nd	3rd
Sg./Pl.	poṛ-chhi	poṛ-chho	poṛ-chhe
Honorific	NA	poṛ-chhiish	poṛ-chhen

The present continuous should be able to appear in the antecedent of a conditional.<sup>14</sup>

#### 15.2.2 Past Continuous (PAC)

The past continuous consists of the high verb stem and the auxiliary *chh* in the perfective. (Cf. the table for the perfective in (69)).

(73)

Person	1st	2nd	3rd
Sg./Pl.	poṛ-chhilaam	poṛ-chhile	poṛ-chhilo
Honorific	NA	poṛ-chhili	poṛ-chhilen

The past continuous can appear in the antecedent of a conditional.<sup>15</sup>

<sup>14</sup>But you don’t have any examples - try to get some.

<sup>15</sup>But you don’t have any examples - try to get some.

### 15.2.3 Present Perfect (PRP)

The present perfect consists of the perfect participle and the auxiliary *chh* in the simple present. The perfect participle is formed by adding *-e* to the stem.

(74)

Person	1st	2nd	3rd
Sg./Pl.	poṛ-e-chhi	poṛ-e-chho	poṛ-e-chhe
Honorific	NA	poṛ-e-chhish	poṛ-e-chhen

The present perfect is not used much in the antecedents of conditional, but when it is, it behaves as in (75).

- (75) [jodi Ram poṛ-e-chhe] [tahole medal paa-be] (Bengali)  
 if Ram study-PF-CHH.SP.3 then medal get-FUT.3
- [agar Ram-ne paṛhaai kii hai] [to vo medal paa-yegaa] (Hindi)  
 if Ram-Erg study do-Pfv PRS then he medal get-Fut

‘If John has studied, he will get a medal.’

The Bengali present perfect, thus, behaves like the Hindi present perfective and like the English present perfect.

### 15.2.4 Past Perfect (PAP)

The past perfect consists of the perfect participle and the auxiliary *chh* in the perfective. (Cf. the table for the perfective in (69)).

(76)

Person	1st	2nd	3rd
Sg./Pl.	poṛ-e-chhilaam	poṛ-e-chhile	poṛ-e-chhilo
Honorific	NA	poṛ-e-chhili	poṛ-e-chhilen

The past perfect is also not used much in the antecedents of conditional, but when it is, it behaves as in (77).

- (77) [jodi Ram poṛ-e-chhilo] [ta(ho)le medal keno pe-lo-na?] (Bengali)  
 if Ram study-PF-CHH.Pfv.3 then medal why get-Pfv-Neg
- [agar Ram-ne parhaai kii thii] [to us-ne medal kyū nahī paa-yaa] (Hindi)  
 if Ram-Erg study do-Pfv PST then he-Erg medal why NEG get-Pfv

‘If Ram had (indeed) studied, why didn’t he get a medal?’

Note that unlike the English translation, the Hindi (and presumably the Bengali<sup>16</sup>) conditional is not a counterfactual. Given an appropriate context, (78) is fine in Hindi.

- (78) [agar Ram-ne do saal pahle pooja kii thii] [to aaj baarish ho-gii]  
 if Ram-Erg two years ago worship do-Pfv PST then today rain be-FUT
- ‘If Ram worshipped two years ago, it will rain today.’

Thus the past perfective is not intrinsically counterfactual in Hindi.

<sup>16</sup>Check

### 15.2.5 Presumptive (PM)

The presumptive consists of a main verb with the infinitival *-te* marker on it, followed by the auxiliary *thak* in the future. (Cf. the declinations for the future in (68)).

(79)	Person	1st	2nd	3rd
	Sg./Pl.	poṛ-te thak-bo	poṛ-te thak-be	poṛ-te thak-be
	Honorific	NA	poṛ-te thak-bi	poṛ-te thak-ben

Masica notes that this form has more of a futurate interpretation than a presumptive sense. (Cf. (80)).

- (80) aami poṛ-te thak-bo  
 I study-Inf THAK-FUT.1  
 ‘I will be reading/will continue to read.’

### 15.2.6 Presumptive Perfect (PMP)

In the presumptive perfect, the auxiliary *thak* which takes future morphology takes a perfect participle as a complement.<sup>17</sup>

(81)	Person	1st	2nd	3rd
	Sg./Pl.	poṛ-e thak-bo	poṛ-e thak-be	poṛ-e thak-be
	Honorific	NA	poṛ-e thak-bi	poṛ-e thak-ben

- (82) aami poṛ-e thak-bo  
 I study-PF THAK-FUT.1  
 ‘I(we) shall/must have read.’

### 15.2.7 Subjunctive Perfect (SJP)

The subjunctive perfect is very similar to the simple presumptive except that the auxiliary *thak* appears in the SP.<sup>18</sup>

(83)	Person	1st	2nd	3rd
	Sg./Pl.	poṛ-e thak-i	poṛ-e thak-o	poṛ-e thak-e
	Honorific	NA	poṛ-e thak-iish	poṛ-e thak-en

About the interpretation of the subjunctive perfect<sup>19</sup>, Sutton Page (1934) writes (he calls it the present frequentative):

<sup>17</sup>Any conditionals?

<sup>18</sup>There appears to be a morphological gap here - we have PerfectP+thak.fut, PerfectP+thak.prs but no PerfectP+thak.Pfv i.e. something like *poṛi thakli*. Investigate.

<sup>19</sup>It is unclear to me why this form should be ‘subjunctive perfect’ - it is perfect alright because it contains a perfect participle but it is unclear if the SP morphology on *thak* is interpreted as the simple present or as subjunctive (contingent future). I continue to use the term however.

Present Frequentative: used to denote action which is at present customary. Bengali tends to mark the customariness of such action by the use of this tense in many places where English uses the present simple, and leaves the customariness of the action to be inferred from the context.

- (84) a. aami roj shekhane gi-e thak-i  
 I daily there.Loc go-PF THAK-SP.1  
 ‘I go there every day.’  
 b. e desh-er lokera bhat khe-e thak-e  
 this country-Gen people rice eat-PF THAK-SP.3  
 ‘The people of this country eat rice.’

The SP-morphology can be, but is rarely, used in the antecedent of a conditional. (Cf. (85)).

- (85) [jodi Ram por-e thak-e [tahole medal paa-be]  
 if Ram study-PF THAK-SP.3 then medal get-FUT.3  
 ‘If Ram has studied, he’ll get a medal.’

It is not clear exactly how conditionals with SP-morphology in their antecedent differ from conditionals with present perfect or past perfect morphology in their antecedents. Apparently, subjunctive perfect conditionals have a remoteness that the other two lack.

### 15.2.8 Past Habitual/Contrafactual Conditional (PHCF)

	Person	1st	2nd	3rd
(86)	Sg./Pl.	por-tam	por-te	por-to
	Honorific	NA	por-tiish	por-ten

Sentences with the PHCF morphology are interpreted as past habitual in isolation. (Cf. (87)). As expected, (87) is bad because generic statements are not compatible with point adverbials.

- (87) a. aami aash-tam  
 I come-PHCF  
 ‘I used to come.’  
 b. \*aami kalke por-tam  
 I yesterday study-PHCF

When in the antecedent of a conditional, the PHCF morphology produces a counterfactual interpretation. (Cf. (88)).

- (88) a. [jodi aami aash-tam], [tahole aami oke dekh-tam]  
 if I come-PHCF then I s/he see-PHCF  
 ‘If I would have come, I would have seen him.’  
 b. [jodi aami kalke aash-tam], [tahole aami oke dekh-tam]  
 if I yesterday come-PHCF then I s/he see-PHCF  
 ‘If I would have come yesterday, I would have seen him.’

(88b) shows that the point adverbial is able to combine felicitously with the PHCF morphology, suggesting that the past habitual morphology there is being used up for other purposes.

Apparently, an archaic version of Bengali called *Sadhu Bhasa* has several additional forms such as Imperfective and Perfective Contrafactuals and an Imperfective Subjunctive that are apparently missing from the Colloquial.

## 16 A survey of various Hindi dialects

Language:form	1SG	2SG	3SG	1PL	2PL	3PL
Hindi:PrsImpfv	maar-taa/tii hū	maar-taa/tii hE	maar-taa/tii hE	maar-te/tii hĒ	maar-te/tii ho	maar-te/tii hĒ
Hindi:Cfv.m	maar-taa	maar-taa	maar-taa	maar-te	maar-te	maar-te
Hindi:Cfv.f	maar-tii	maar-tii	maar-tii	maar-tii	maar-tii	maar-tii
Kanauji:PrsImpfv	maar-3t hū	maar-3t hE	maar-3t hE	maar-3t hĒ	maar-3t ho	maar-3t hĒ
Braj:PrsImpfv	maar-tu hŪ	maar-tu hE	maar-tu hE	maar-tu hĒ	maar-tu hŪ	maar-tu hĒ
Awadhi:PrsImpfv	maar-3t aheū	maar-3t ahes	maar-3t ahE	maar-3t ahii	maar-3t ahē	maar-3t ahĒ
Awadhi:Cfv.m	maar-teū	maar-tes	maar-3t	maar-it	maar-teu	maar-ten
Awadhi:Cfv.f	maar-tiū	maar-tis	maar-it	maar-it	maar-tiu	maar-tin
Riwái:PrsImpfv	maar-3t aā	maar-te hE	maar-3t aa	maar-3tyē hĒ	maar-3t ahen	maar-3n aā
Riwái:Cfv.m	maar-tyehū	maar-tyeh	maar-tyei	maar-tyen	maar-tyēh	maar-tyen
Riwái:Cfv.f	maar-tyihū	maar-tyih	maar-tyii	maar-tyin	maar-tyihi	maar-tyin
Riwái:PrsImpfv	maar-3t aā	maar-te hE	maar-3t aa	maar-3tyē hĒ	maar-3t ahen	maar-3n aā
Bhojpuri:PrsImpfv.m	maar-3t baatō	maar-3t baat3s	maar-3t baatē	maar-3t baatīi	maar-3t baat	maar-3t baat3n
Bhojpuri:PrsImpfv.f	maar-3t baatyū	maar-3t baatis	maar-3t batsi	maar-3t baatyū	maar-3t baatuu	maar-3t baatīn
Bhojpuri:Cfv.m	maar-tō	maar-t3s	maar-te	maar-tii	maar-t	maar-t3n
Bhojpuri:Cfv.f	maar-tyū	maar-tis	maar-t3si	maar-tyū	maar-tuu	maar-tin
Magadhi:PrsImpfv.m	maar-it hii	maar-it h3n	maar-it h3i	maar-it hii	maar-it h	maar-it h3ii
Magadhi:PrsImpfv.f	maar-it hiyō	maar-it hii		maar-it hiyō	maar-it hii	maar-it h3thiin
Magadhi:Cfv.m	maar-itūū	maar-it3n	maar-it3i	maar-itii	maar-it	maar-it3n
Magadhi:Cfv.f	maar-itiiyō	maar-itii	maar-itii	maar-itiiyō	maar-itii	maar-itin

Only Hindi forms are given as all western (Kanauji, Braj, West Rajasthani, East Rajasthani) and northern dialects (Garhwali, Kumaoni, Naipali) agree with it in the loss of all personal endings.

Kellogg notes that:

776. It is not to be supposed that in this sense of a past conditional, this tense is really identical in origin with the exactly similar forms which have an inflected sense. The actual existence of an *inflected* past conditional, derived from the imperfect participle, in the eastern Hindi dialects, suggests the opinion that we have here in reality two tenses, the one indicative, consisting merely of the imperfect participle; the other, a contingent, being an inflected derivative from the imperfect participle; which two tenses, through the processes of phonetic decay, have been reduced in modern High Hindi to one identical form. Pg. 466