

A Comparative Look at the Future in Indo-Aryan

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1 Preliminaries

- This is very much work in progress.
- Musings about the future began in 2001 with Ashwini Deo and some of the material here was gathered together with her.
- This talk feels like the tip of an iceberg (little though we know, we have already left out much).

2 Starting Point: Modern Hindi/Urdu

- Like in many languages, Modern Hindi/Urdu has several different ways of expressing the future, each with slightly different semantics.
- An Indo-European characteristic seems to be a penchant for using a verbal noun/gerundive structure for the expression of futurity.
- We will not concentrate on that here, but instead try to understand the diachrony of the inflectional futures, focusing on *-g-* and *-l-* futures in particular.

2.1 Future Forms

The **simple future** works as follows:

Verb Stem + Number&Person Marking + *g* + Number&Gender Marking

(1)	Singular	Plural	Respect (ap)	Familiar (tum)
	M/F	M/F	M/F	M/F
1st	mar-ũ-g-a/i	mar-ẽ-g-e/i		
2nd	mar-e-g-a/i		mar-ẽ-g-e/i	mar-o-g-e/i
3rd	mar-e-g-a/i	mar-ẽ-g-e/i		

mar- ‘hit’

⇒ This is one of the forms we will be focusing on.

An **immediate future** reading is obtained via the following pattern:

Verbal Noun + *vala* ‘one’ or the accusative/dative marker in combination with forms of the verb ‘be’

(2) mǎĩ 1s=ko xarid-ne=vali hũ
 I.Nom this.Obl=Acc buy-Inf.Obl=one.F.Sg be.Pres.1.Sg
 ‘I am about to buy this.’ Urdu

(3) mali nae p^hul lag-a-ne=ko hai
 gardener.M.Sg.Nom new.M.Pl flower.M.Nom attach-Caus-Inf.Obl=Acc be.Pres.3.Sg
 ‘The gardener is about to plant new flowers. Urdu (Glassman 1976, 233)

The **imperfect/present** can be used as an **immediate future** (also a reading of ‘promise to’):

(4) mǎĩ 1s=ko abhi mar-ti hũ
 I.Nom this.Obl=Acc now hit-Impf.F.Sg be.Pres.1.Sg
 ‘I will hit this one in a second .’ Urdu

The **perfect/past** can be used as an **immediate future** (also a reading of ‘promise to’):

(5) mǎĩ abhi a-ya
 I.Nom now come-Perf.M.Sg
 ‘I’ll be right there .’ Urdu

2.2 Taking Stock

- While the Verbal Noun constructions are interesting, their syntactic and semantic properties could probably follow quite straightforwardly — these constructions are used to express modality and there is a close relationship between modals and the expression of futurity (e.g., Fleischman 1982).
- The use of past and present forms to express futurity is also well established crosslinguistically.
- The “normal” Urdu/Hindi future (the *-g-* form) at first sight also seems quite normal as would appear to be a simple inflectional future.
- However, when one begins to wonder about the funny distribution of Number&Person marking vs. Gender&Person marking (1), a historical can of worms comes to light.

2.3 Structure of the Talk

- Diachrony of the Urdu/Hindi g-future.
- Comparative look at (some) other NIA languages
- Comparison of the *-g-* and *-l-* futures.
- Conclusions and Outlook (basically, much work to be done)

3 Diachrony of the Urdu/Hindi g-future

The grammars of the last centuries agree that the verb ‘go’ gave rise to the Urdu/Hindi future morpheme *-g-*.

3.1 Past/Perfect Participle Origin

- The *-g-* morpheme is supposed to be derived from a Prakrit participle of the verb *gā* ‘go’ (Kellogg 1893, 231; Beg 1988, 191; McGregor 1968).

(6) Development of the Urdu/Hindi Future Marker

Sanskrit *gataḥ* > Prakrit **gao* > ... > Modern Urdu/Hindi *-g-*
Past Participle Affix
of *gā* ‘go’

(see Kellogg 1893, 231; Tiwari 1955, 500; Beg 1988, 191)

- The gender and number agreement morphology (*a/i/e*) exhibited by the future is regular synchronically in that exactly this agreement morphology is also found on the perfect, imperfect and progressive forms, all descended from participles.
- The appearance of this morphology follows unproblematically if the *-g-* is indeed associated with an old participle of ‘go’.
- Ashwini Deo (p.c., September 2001): some confirmation that it is indeed the past participle comes from a dialect called Bhanu spoken in Madhya Pradesh.
 - The future inflection is *gaṭa*.
 - This is related to the OIA *gataḥ* (cf. (6)).
 - Examples: *hon-gaṭa* ‘will be’, *likḥan-gaṭa* ‘will write’, *kahan-gaṭe* ‘will say’

3.2 Origin of Infixed Person/Number Inflection

- The person/number inflection of the future paradigm is very likely a continuation of old present morphology, which could also be used as an immediate future (in questions) or with subjunctive force (McGregor 1968, 176).

(7) a. māĩ bol-ũ?
 I.Nom speak-Subj.1.Sg
 ‘Should I speak?’ Urdu

b. māĩ mar-ũ?
 I.Nom hit-Subj.1.Sg
 ‘Should I hit (this person/thing)?’ Urdu

- Compare the paradigm for the present tense of the modern Urdu verb *ho-* ‘be’ with the number&person inflections of the future.

(8)		Singular	Plural	Respect (ap)	Familiar (tum)
	1st	hũ	hẽ		
	2nd	he		hẽ	ho
	3rd	he	hẽ		
	ho- ‘be’				

(9)		Singular	Plural	Respect (ap)	Familiar (tum)
		M/F	M/F	M/F	M/F
	1st	mar-ũ-g-a/i	mar-ẽ-g-e/i		
	2nd	mar-e-g-a/i		mar-ẽ-g-e/i	mar-o-g-e/i
	3rd	mar-e-g-a/i	mar-ẽ-g-e/i		
	mar- ‘hit’				

3.3 From Verb to Affix

- There is evidence that the *-g-* was a clitic rather than an affix until quite recently.
- This fits in with generally established paths of grammaticalization by for verbal morphology.

(10) full verb > auxiliary > clitic > affix
 (Grammaticalization Cline, Hopper and Traugott 1993, 108)

- Evidence for the clitic stage is provided by Kellogg (1893, §399): in the Hindi translation of the play *Shakuntala* (originally written in Sanskrit by Kalidasa between 100 BCE and 400–500 CE) several examples can be found in which the emphatic particle *hi* intrudes between the *-g-* suffix and the rest of the verb.

- (11) a. kah-ũ=hi=ga
 say-1.Sg-Emph-Fut.M.Sg
 ‘I will say (it), of course.’ (Old Hindi, from Kellogg 1893, §399)
- b. man-e=hĩ=gi
 heed-3.Sg-Emph-Fut.F.Sg
 ‘She will (have to) see reason.’ (Old Hindi, from Kellogg 1893, §399)

- The existence of examples as in (11) suggests that the modern future morphology indeed arose through the reanalysis of an originally periphrastic construction involving a participle of ‘go’ via a stage of cliticization.
- The insertion of a focus particle is only marginally possible in the modern language, suggesting continued reanalysis since Kellogg’s time.
- (Note: in Urdu the *ga/gi/ge* are written as separate words, whereas in Hindi they are written together with the verb.)
- Kellogg (1893, §399) further notes that the development of the g-future is of relatively recent origin and appears to have been one of the latest developments of the language.
- Hoernle (1880, §501) adduces phonological evidence (lack of vowel shortening) to show that the ‘go’ and the verb are separate words.

Butt and Lahiri (2012) posit the stages of reanalysis shown in (12) for the development of the modern Urdu future.

- (12) **Future:**
 $[\text{Stem} + \text{Suffix}_{\text{PERS/NUM}}]_{\omega} [\text{go} + \text{Suffix}]_{\omega}$
 > $[[\text{Stem} + \text{Suffix}_{\text{PERS/NUM}}] + [\text{go} + \text{Suffix}]_{\text{CLITIC}}]_{\omega}$
 > $[\text{Stem} + \text{Suffix}_{\text{PERS/NUM}} + \text{go} + \text{Suffix}]_{\omega}$

3.4 So Far so Good? — Not Quite

- Generally, the use of the verb ‘go’ to create a new future is unsurprising (e.g., the famous English *going to* future) — the typological study of Bybee et al. (1994) shows that ‘go’ is a popular crosslinguistic source for futures.
- The **Diachronic Semantics** seems to be generally in line with what has been posited before, e.g., Fleischman 1982 (on Romance) and Bybee et al. 1994 (typological survey), though the details are unclear (to us at least).
- However, the morphological and syntactic form of this combination is puzzling.

3.4.1 Diachronic Semantics

Futages

Bybee et al. (1991) and Bybee et al. (1994, 279) propose the following overall path for the development of future forms (“futages”):

- (13) Futage 1: Futures with the agent-oriented uses of obligation, desire and ability
Futage 2: Futures with the later agent-oriented uses of intention, root possibility, and the specific use of immediate future
Futage 3: Grams with simple future as their only use
Futage 4: Futures with epistemic, speaker-oriented, and subordinate uses.
- The Urdu/Hindi future would appear to be in Futage 3.
 - It could possibly have gone through Futage 2 (agent-oriented uses of intention) before.
 - And Futage 1 could correspond to a possible optative use of the present tense morphology (desire).
 - However, the future “gram” itself does not express desire — the subjunctive/present morphology is responsible for this. This type of situation is problematic for Bybee et al., as they want to locate the diachronic semantics on the future “grams” themselves and not as deriving constructionally (Bybee et al. 1994, 260).

Bybee et al. (1991, 30) also say “...we would not expect a motion verb with an ablative component or perfective marking to develop a future reading.”

But the past/perfect participle that the ‘go’ of the future seems to come from has often been analyzed as perfective marking in the modern languages (e.g., Hook 1991).

Cycles

- Fleischman (1982) proposes that future markers undergo cycles of language change (as opposed to the unidirectional path of development advocated by Bybee et al.).
- A simplified version is in (14) (Fleischman 1982, 108).
(14) Aspect/Modality → Future Tense → Modality
- Whereby “Aspect” refers to concepts such as Prospection, Imminence, Intent and Inception (Fleischman 1982, 129).
- This would roughly seem to hold for the Urdu/Hindi situation.
- However, all the instances Fleischman looks at involve a finite verb embedding a non-finite verb.

2. Take a comparative look to see whether this future formation is an isolated example (section 4).

4 Future Forms in NIA Languages

- A quick look at other NIA languages reveals a number of different types of future forms.
- The various possible forms do not occur in all languages.
- But the possibilities also never seem to be confined to just one language.
- That is: there seem to have been a handful of different possible ways of arriving at futures and individual languages have mixed and matched these strategies.

4.1 Futures based on the OIA present tense

- The verbal tense/aspect system underwent massive restructuring in the course of language change from OIA to MIA to NIA.
- One paradigm that has survived is the OIA present tense.
- We have already seen an instance of it in (8).
- The old present morphology is now generally/mostly used to express subjunctive/optative meaning.
- In some languages, this subjunctive can also be used to express *contingent future* (cf. Masica 1991, Hahn 1953).

Example: Mewari (Allen 1960, 7)

(16)	Singular	Plural
1st	ja-ũ	ja-ã
2nd	ja-i	ja-vo
3rd	ja-i	ja-i
ja- 'go'		

4.2 s-futures and h-futures

OIA had an inflectional future, called the s-future (or more generally in the Indo-European philological tradition the *sigmatic* future) in *-sya/-isya*.

Future forms containing an *-s-* form survive in, for example: Gujarati (caliś ‘will walk/move’), Eastern Rajasthani and Siraiki (Masica 1991, 289).

A variant of the *s*-future is the *h*-future. The *h* is taken to have been the result of phonological sound change whereby *s* > *h*. This is found in, for example, Marwari, Bhili, Bundeli, Bhojpuri, Maithili (Masica 1991, 289).

4.3 b-futures

Another future form contains *-b-* and is derived from the Sanskrit participle (gerundive) *-tava*, which had an obligational meaning (among others) in OIA.

The diachronic development of an obligational gerundive to a future marker seems quite straightforward (cf. section 3.4.1).

Languages which make use of this future are, for example: Bengali, Oriya and Bhojpuri.

4.4 Mixing and Matching of Paradigms

If you have been paying attention, you will have noticed that Bhojpuri has been listed as using both an *h*-future and a *b*-future.

In fact, this happens in the same paradigm, with the *b*-future being used for the 1st person and the *h*-future for the 2nd and 3rd persons (Masica 1991, 289).

This kind of situation is apparently not uncommon in NIA.

⇒ This is an interesting situation one should look into further as well (will also become relevant in section 5.2).

4.5 Verbal Noun Constructions

Just as we saw for Urdu/Hindi in (2) and (3), many NIA languages contain periphrastic constructions for the expression of immediate (or non-remote) future that involve a verbal noun.

As these NIA languages (e.g., Marathi and Punjabi) use the same types of constructions to express various shades of modality, the diachronic connection seems clear with respect to both semantics and syntax.

5 The l-future

So far none of the possible future forms employed in NIA have been along the lines of the g-future found in Urdu/Hindi (and also in Punjabi and some Eastern Rajasthani dialects).

However, a future form in *-l-* occurs in languages such as Nepali, Rajasthani (as well as classical Marathi).

This l-future works much the same as the g-future, but with some interesting wrinkles.

5.1 Rajasthani

Tessitori (1914) notes that the old present forms can express future meaning in Jaipuri Rajasthani.

- (17) hu nahĩ mar-ũ
I not die-Pres.1.Sg
'I will not die.' Jaipuri Rajasthani

An *-l-* form can be added to the present paradigm to give future meaning, much as in Urdu/Hindi.

However, this appears to be an older part of the language in comparison to Urdu/Hindi.

- (18) amhe pachai kar-ũ-l-a
we follow do-Pres.1-Fut-M.Pl
'We will follow (it).' 1510 CE, Jaipuri Rajasthani

Allen (1960) provides the following paradigm for Bikaneri Marwari (Rajasthani) (cf. the Mewari present paradigm in (16)).

- (19)
- | | Singular | Plural |
|-----|-------------------|-------------------|
| | M/F | M/F |
| 1st | ja-ũ-lo/ja-ũ-li | ja-vã-la/ja-vã-li |
| 2nd | ja-vε-lo/ja-vε-li | ja-vo-la/ja-vo-li |
| 3rd | ja-vε-lo/ja-vε-li | ja-vε-la/ja-vε-li |
- ja- 'go'

5.2 Nepali

Nepali has several ways to express futurity:

- periphrastic expressions with verbal nouns/participles

- Non-Past morphology (often in conjunction with temporal adverbs)
- The *l*-future

However, the *l*-future works differently from Rajasthani in the 2nd and 3rd persons.

(20)	Singular	Plural
	M/F	M/F
1st	gar-ũ-la	gar-ãũ-la
2nd	gar-la-as/gar-l-is	gar-la-au/gar-la-au
3rd	gar-la/gar-l-i	gar-la-n/gar-la-n

gar- ‘do’

- The 1st person cells display the by-now-familiar pattern of V+Person&Number+*l*-future.
- However, in the 2nd and 3rd person cells the *l*-future appears to be attached directly to the verb, with person, number and gender marking following the *l* morpheme.
- It is at present unclear to us what the reason for this is.
- But note that we have seen situations before in which different cells of the paradigm employ different strategies to express the future (cf. Bhojpuri above).

5.3 Historical Origin

Unlike with the *g*-future, there is no consensus in the available literature on the diachronic origin of the *l*-future.

5.3.1 Confusion with a Past Form

An *-l* form is also used to express the past tense in languages like Bengali

(21)	dek ^h -l-am
	see-Past-1.Sg
	‘I saw.’

Bengali

It might be tempting to try to connect this *-l* form as being the same as the *l*-future, but see, for example, Chatterji (1926) for an extensive discussion of the past *l* and the future *l*, where he adduces different diachronic origins.

Past -l-

- Chatterji sees the *l* as deriving from an OIA adjectival suffix *-la*.
- This suffix was added to perfect/past participle forms in *-(i)ta* as follows:

(22) OIA V+ita+la → MIA V+ia+lla → NIA V+la

- This is contra Hewson and Bubenik (1997, 266), who see a connection to the Balto-Slavic *-l* which formed past active participles — Chatterji explicitly rejects this hypothesis on the grounds that it cannot account for the attested MIA *ll* version of the form.

Future -l-

- Chatterji is inclined to follow Bloch (1914), who connects it to a Prakrit passive participle of *le* ‘take’: *li-ya* (cf. also Hewson and Bubenik (1997, 275)).
- However, there are many other proposals.
- Hoernle (1880) connects the *l* to a verb ‘come’ (this seems doubtful — work to be done is to verify the existence of such a root).
- Beames (1872–79, §55) sees a likely suspect in *lag* ‘be attached’, which is also used as an aspectual verb in Hindi/Urdu (23) (see also Shapiro (1987)).

(23) mǎĩ cal-ne lag-i
I.Nom walk-Inf.Obl be.attach-F.Sg
‘I began walking.’

- The future meaning then comes about as follows:
‘He begins (that) he may do.’ → ‘He is about to do.’ → ‘He will do.’

5.3.2 Discussion

- The connection drawn to *lag* ‘be attached/begin’ seems attractive.
- However, we again encounter the difficulty that the standard way of forming such aspectual constructions is by embedding an infinitive/verbal noun, as shown in (23).
- We are not familiar with an embedding construction or a periphrastic construction that could be straightforwardly reanalyzed as a future of the type in a verb carrying person/number marking indicating an old present/subjunctive form is embedded under a past participial.

- The same holds for the intentional/purposive meaning proposed as a diachronic ancestor of the g-future (cf. (15)).
- Both (23) and (15) work as one would expect from a reanalysis point of view: a finite form embeds an infinitive form and this can be reanalyzed as a combination of main verb plus auxiliary and from there to main verb plus affix.
- However, this is not what we see happening in the diachronic story painted for the g-future and the l-future so far.
- In particular, the Nepali data in (20) are very puzzling.
- Some clue may be found through an examination of differences within paradigms such as in Bhojpuri (cf. discussion above) or Eastern IA, where the future suffix is *-m* in the 1st person, but *-b* in the 2nd and 3rd persons.
- We provide an example from Rajbanshi future in (24) (Poudel 2006).

(24)

	Singular	Plural
1st	paḍ ^h -m	paḍ ^h -m-a
2nd	paḍ ^h -b-it	paḍ ^h -b
3rd	paḍ ^h -b-o	paḍ ^h -ba-n

paḍ^h- ‘read’

6 Summary and Outlook

- NIA languages avail themselves of several different kinds of innovated futures in addition to futures inherited from OIA.
- Languages that have innovated the l-future or the g-future have lost the old s-future (this change in progress is documented in Marathi, for example).
- Most of these futures can be analyzed as following straightforwardly from patterns already established crosslinguistically.
- However, the g-future and the l-future are interesting.
 - In principle their diachronic semantics conforms to what has been established on the basis of crosslinguistic evidence.
 - But the morphology and the syntax of the construction just does not compute in terms of the kind of reanalysis that is known to give rise to new future expressions.
 - This is particularly evident in the Nepali paradigm.
- Various lexical sources for the l-future have been posited.

- Having a lexical verb as a source for the *l*-future is in principle attractive/desirable. However:
 - Based on the findings of Bybee et al. (1994), the verb ‘take’ is unlikely (as is ‘begin’).
 - The existence of a root in *l* meaning ‘come’ still needs to be established, but in principle it could be a likely source for a future auxiliary/affix.

To Do:

- Adduce more evidence from (more) texts — it would be nice to have these in digital form and usefully annotated.
- Do field work on languages that are known to preserve some of the MIA patterns to try to understand how the change did happen.

References

- Allen, W.S. 1960. Notes on the Rājasthānī Verb. *Indian Linguistics* 21, 4–13.
- Beames, John. 1872–79. *A Comparative Grammar of the Modern Aryan Languages of India*. Delhi: Munshiram Manoharlal, republished 1966.
- Beg, Mirza Khalil A. 1988. *Urdu Grammar: History and Structure*. New Delhi: Bahri Publications.
- Bloch, Jules. 1914. *The Formation of the Marāṭhī Language*. Delhi: Motilal Banarsidass, reprinted 1970.
- Butt, Miriam and Lahiri, Aditi. 2012. Diachronic Pertinacity of Light Verbs. *Lingua* To Appear.
- Bybee, Joan, Pagluca, William and Perkins, Revere D. 1991. Back to the Future. In Elizabeth C. Traugott and Bernd Heine (eds.), *Approaches to Grammaticalization, Volume II*, pages 17–58, Amsterdam: John Benjamins.
- Bybee, Joan L., Perkins, Revere D. and Pagliuca, William. 1994. *The Evolution of Grammar: Tense, Aspect and Modality in the Languages of the World*. Chicago: The University of Chicago Press.
- Chatterji, Suniti Kumar. 1926. *The Origin and Development of the Bengali Language, Volume II*. Calcutta: D. Mehra, Rupa & Co, 1975 edition.
- Fleischman, Suzanne. 1982. *The future in thought and language: Diachronic Evidence from Romance*. Cambridge: Cambridge University Press.

- Glassman, Eugene. 1976. *Spoken Urdu*. Lahore: Nirali Kitaben.
- Hahn, Adelaide E. 1953. *Subjunctive and Optative: Their Origin As Futures*. New York: Lancaster Press.
- Hewson, John and Bubenik, Vit. 1997. *Tense and Aspect in Indo-European Languages: Theory, Typology, Diachrony*. Amsterdam: John Benjamins.
- Hoernle, A.F. Rudolf. 1880. *A Comparative Grammar of the Gaudian (Aryo-Indian) Languages — With special reference to the Eastern Hindi*. London: Trubner & Co.
- Hook, Peter Edwin. 1991. The Emergence of Perfective Aspect in Indo-Aryan Languages. In Elizabeth Traugott and B. Heine (eds.), *Approaches to Grammaticalization*, pages 59–89, Amsterdam: Benjamins.
- Hopper, Paul J. and Traugott, Elizabeth C. 1993. *Grammaticalization*. Cambridge: Cambridge University Press.
- Kellogg, S. H. 1893. *Grammar of the Hindi Language*. Delhi: Munshiram Manoharlal Publishers Pvt. Ltd., second Edition, reprinted 1990.
- Masica, Colin. 1991. *The Indo-Aryan languages*. Cambridge: Cambridge University Press.
- McGregor, R.S. 1968. *The Language of Indrajit of Orchā*. Cambridge: Cambridge University Press.
- Platts, John T. 1909. *A Grammar of the Hindūstāni or Urdū Language*. London: Crosby Lockwood and Son.
- Poudel, Tikaram. 2006. *Rajbanshi Grammar and Interlinearized Texts*. München: Lincom Europa.
- Shapiro, Michael. 1987. Hindi lagnā: A study in semantic change. *Journal of the American Oriental Society* 107(3), 401–408.
- Tessitori, Luigi. 1914. Notes on the Grammar of the Old Western Rajasthani with Special Reference to Apabhramṇa and to Gujarati and Marwari. *Indian Antiquary* XLIII, 181–216, 225–236, chapter 3.
- Tiwari, U.N. 1955. *Hindī Bhāṣā Kā Udgam aur Vikās*. Allahabad.