

# A Paradigm Gap in Urdu

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## ABSTRACT

In this paper, we document a paradigm gap in the combinatorial possibilities of verbs and aspect in Urdu: the perfective form of the *-ya: kar* construction (e.g., *ro-ya: ki:* ‘cry-Pfv do.Pfv’) is sharply ungrammatical in modern Urdu and Hindi, despite being freely attested in 19th-century literature. We investigate this diachronic shift through historical text analysis, a large-scale corpus study—which confirms the stark absence of perfective forms—and subjective evaluation tasks with native speakers, who judge perfective examples as highly unnatural. We argue that this gap arose from a fundamental morphosyntactic conflict: the construction’s requirement for a nominative subject and an invariant participle clashes with the core grammatical rule that transitive perfectives assign ergative case. This conflict rendered the perfective form unstable, and its functional replacement by other constructions allowed the gap to become entrenched in the modern grammar.

## 1 Introduction

Human languages are dynamic systems that continually evolve, resulting in the emergence, change, and sometimes complete disappearance of morphological and grammatical structures. Within this diachronic landscape, the phenomenon of *paradigm gaps*—systematic absences of expected word forms or constructions—presents a particularly intriguing puzzle for linguistic theory (Albright 2003, Sims 2006, Bermel & Knittl 2012). Such gaps challenge models of language production, acquisition, and change, as they represent a failure of the grammar to generate a logically possible form. A notable example is provided by İleri & Demirok (2022), who identify a gap in the third person plural paradigm of desiderative constructions in Turkish, a pattern which speakers consistently avoid or deem unacceptable.

This paper investigates the existence of a gap in the combinatorial possibilities of a verb and aspect in Urdu. In general, in Urdu all verbs combine with the full range of aspectual/tense options i.e. given an unfamiliar verb, an Urdu speaker can use it in the perfective, the imperfective, the subjunctive, the future and so on. Given this, it comes as a surprise that the *-ya: kar* ‘-Pfv do’ construction cannot combine with the perfective.

- (1) Vo pehrō ro-ya: kar-ta: tha:  
Dem hours cry-Pfv do-Impfv.MSg be.Pst.Msg  
He used to cry for hours.

- (2) \*Vo pehrō ro-ya: kiya:  
Dem hours cry-Pfv do.Pfv.MSg  
Intended: He cried for hours.

The puzzle deepens with the finding that this gap is a historical innovation. Through analysis of 19th-century Urdu literature, we show that the perfective *-ya: kar* construction was not only possible but actively used (3).

- (3) Vo raat bhar ro-ya: ki: (Umrao Jaan Ada, Mir Hadi ‘Ruswa’, 1899)  
Dem night all cry-Pfv do.Pfv.F  
‘She cried/kept crying all night.’

This diachronic shift raises two central research questions:

1. What factors led to the loss of the perfective *-ya: kar* form in modern Urdu?
2. Why has this specific gap persisted, and how is it learned by speakers, given that it does not create an expressivity problem?

We propose that the gap is motivated by a fundamental *morphosyntactic conflict*. The *-ya: kar* construction exhibits two invariant properties: the subject appears in the nominative case, and the participial verb *-ya:* does not agree with the subject. This configuration clashes with a core rule of Urdu grammar: transitive verbs in the perfective aspect typically assign ergative case to their subject. We propose that this conflict rendered the perfective form unstable, leading speakers to avoid it over time. Its semantic function was seamlessly absorbed by other available forms, such as the simple perfective or the *-ta: rah-* construction, thus preventing an ineffability problem and allowing the gap to become entrenched.

To support this argument, we present evidence from multiple sources: a qualitative analysis of historical texts establishing the construction’s prior existence, a quantitative corpus study demonstrating its stark absence in modern Urdu, and native speaker judgment tasks confirming its contemporary ungrammaticality.

The paper is structured as follows: Section 2 outlines the two case studies of lost generalizations in Urdu, focusing on the *ca:h-* and *-ya: kar* construction. Section 3 details the syntactic and semantic properties of *-ya: kar* and its historical attestation. Section 4 introduces the *-ta: rah-* construction, which shows no such gap. Section 5 presents our analysis of the case-based motivation for the gap. Section 6 discusses evaluation of *-ya: kar* construction by native speakers. Section 7 concludes. This case study offers a clear model for how paradigm gaps can emerge and stabilize diachronically, driven by syntactic conflict and resolved by competition from existing grammatical forms.

## 2 Loss of generalization

This section examines how a once broadly applicable grammatical construction becomes restricted in its usage over time. A general pattern loses its ability to combine with a wider

range of linguistic elements (like verbs or aspects), becoming specialized or even ungrammatical in previously acceptable contexts. This process of reduced applicability demonstrates that language change involves not only innovation but also the narrowing and specialization of existing grammatical structures.

## 2.1 Loss of a subcategorization frame

The verb *ca:h-* ‘want’ provides an example of semantic and syntactic change over time in Hindi-Urdu. The following examples, attested up until the early 20th century, illustrate an earlier usage of *ca:h-* where it conveyed an ‘about to’ or ‘imminent’ meaning when combined with a perfective verb form:

- (4) a. għari: 12 baj-a: ca:h-ti: hai  
 clock.F 12 ring-Pfv want-Impfv.F be.Prs.Sg  
 ‘The clock is about to strike 12.’
- b. (Small, 1895)  
 vo kal aya: ca:h-te hain  
 Dem tomorrow come-Pfv want-Impfv.M be.Prs.Pl  
 ‘They will come tomorrow.’
- c. asar ki: nama:z=ka: waqt hu-a: ca:h-ta: hai  
 Asar Gen.f prayer=Gen time be-Pfv want-Impfv.M.Sg be.Prs.Sg  
 ‘It is about to be time for the Asar prayer.’
- (5) a. infinitive:  
 vo dubai ja:-na: ca:h-ti: hai  
 Dem Dubai go-Inf want-Impfv.F be.Prs.Sg  
 ‘She wants to go to Dubai’
- b. subjunctive:  
 vo ca:h-ti: hai ki mEN dubai ja:-ũ  
 Dem want-Impfv.F be.Prs.Sg that I Dubai go-Sbjv.1Sg  
 ‘She wants that I go to Dubai’

Now, however, only the desire meaning of *ca:h* remains and it takes an infinitival/subjunctive complement.

## 2.2 Loss of a particular aspectual form

Consider the *-(y)a: kar* construction in contemporary Hindi-Urdu. This construction combines with a range of aspects.

- (6) a. Imperfective:

vo ro:z sku:l ja:-ya: kar-ti: hai  
Dem everyday school go-Pfv do-Impfv.F be.Prs.Sg  
'She goes to school every day'

b. Subjunctive:

mEN ca:h-ta: hũ: ki vo ro:z sku:l ja:ya:  
1Sg want-Impfv.M be.Prs.1Sg that Dem everyday school go-Pfv  
kare  
do.Subjv.3Sg  
'I want that she/he go to school everyday'

c. Future:

agle mahi:ne=se vo ro:z sku:l ja:-ya: kare-gi:  
next month=from Dem everyday school go-Pfv do.Subjv.3Sg-Fut.F  
'From next month, she will go to school everyday'

d. Infinitive:

us-ka: yahã: ro:z a:-ya: kar-na: mujhe qat'ii pasand nahĩ  
3Sg-Gen here everyday come-Pfv do-Inf me.Dat absolutely like not  
'I don't like his/her coming here everyday one bit'

e. Polite Imperative:

a:p roz exercise zaru:r kiya: ki:jiye  
you.Hon everyday exercise definitely do.Pfv do.Imp.Pol  
'Please do exercise every day'

f. Plain Imperative:

waqt se sku:l ja:ya: kar  
time from school go.Pfv.M do.Impfv.2Sg.Imp  
'Go to school on time'

g. Future Imperative:

ro:z sku:l ja:-ya: kar-na:  
daily school go.Pfv.M do-Inf  
'To go to school daily'

However, it does not combine with the perfective and progressive.

(7) \*Perfective:

\*vo ro:z sku:l ja:ya: ki:  
Dem everyday school go.Pfv.M did.Pfv.F.Sg  
'She used to go to school everyday.'

(8) \*Progressive:

\*vo ro:z sku:l ja:-ya: kar rahi: hai  
 Dem everyday school go-Pfv do Prog.F be.Prs.Sg

‘She goes to school everyday (as a routine).’

The ungrammaticality of the perfective form is a recent development in the history of the language. McGregor (1972)’s excellent Hindi grammar, published in 1972, reports instances of the *-ya: kar* construction in the perfective but notes that they are rare (p. 137). In the 50 years since, the combination has gone from rare to non-existent for contemporary speakers, while the construction remains alive and well in other tenses. A further reason for not entertaining a semantic incompatibility argument for the ungrammaticality of the perfective is that the semantically close *-ta: rah-* ‘-Impfv stay-’ construction freely combines with the perfective, as shown in Section 4.

The impossibility with the progressive can perhaps be explained on semantic grounds. However, the impossibility of the combination with the perfective remains to be explained and is the subject of this talk.

To understand the current constraints on the *-ya: kar* construction, particularly its incompatibility with the perfective aspect, we must consider its historical evolution. The examples (with book title, author, and year of publication indicated in parentheses) presented below, drawn from this period, offer concrete instances of the perfective aspect occurring with the *-ya: kar* construction, raising the question of why it is no longer possible.

(9) *ja:-ya: kī:* (Khurshid Bahu, Mirza Hadi ‘Ruswa’)

tum aur pya:-ri: sa:-ji-dah is maka:n meN a:-ya: ja:-ya:  
 2Sg.Pron.Inf and dear.F.Sg Sajida this house in come-Pfv.M go-Pfv.M  
 kī:  
 did.Impfv.Pl

‘You and dear Sajida used to come and go in this house.’

(10) *rakh-a: kī* (Umrao Jan Ada, Mirza Hadi ‘Ruswa’, 1899)

mere na:m=ka: ta’ziyah kha:-num mar-te dam tak rakh-a:  
 my name=GEN taziyah Khanum die-impfv.M breath until keep-Pfv.M.Sg  
 kī  
 do-impfv.Pl

‘Khanum kept the taziyah of my name until her last breath.’

(11) *taR-pa: ki:* (Fasana-e-Ajaib, Rajab Ali Baig Suroor, 1844)

yeh sun kar tama:m shab taR-pa: ki:  
 this hear having all night writhe-Pfv.M.Sg did.Pfv.F.Sg

‘Having heard this, she writhed all night.’

(12) *dekha: kiye* (Urdu-e-Mualla, Mirza Ghalib, 1869)

agast=ke mahi:ne=ka: ha:l kuchh ma'lu:m nahī kal sha:m=ko  
 August=GEN month=GEN state some known not yesterday evening=GEN  
 do do moonDhe rakh kar ka-i: a:d-mi: de-kha: kiye  
 two two stool keep having several person see.Pfv.M did.Impfv.Pl

‘The situation of the month of August is unknown-just last evening, several people were seen stacking two stools on top of each other.’

- (13) *soca: ki:* (Ayama, Deputy Nazir Ahmad, 1891)

akel-i: paR-i: kuchh socha: ki:  
 alone-F fall-Pfv. some think.Pfv.M did.Pfv.F

‘Lying alone, she was thinking something.’

The contrast between the modern ungrammaticality in (7) and the historical attestations in (9-13) establishes a clear case of diachronic change resulting in a paradigm gap. This shift requires an explanation. The following sections will argue that this gap arose from a fundamental morphosyntactic conflict within the construction itself, specifically related to case assignment and the invariant nature of the *-ya:* participle.

### 3 The *-ya: kar* construction

#### 3.1 Semantics

The historical usage of the perfective *-ya: kar* construction reveals a distinct and specific semantic profile, characterized by two core features: (i) its strong association with temporal adverbials that define a bounded timeframe, in many—though not all—cases, the construction co-occurs with durational adverbs like *ra:t bha:r* ‘all night’, *der tak* ‘until late’, and (ii) its strong preference for atelic predicates. The convergence of these features created a specific aspectual niche that we term *bounded atelicity* (Depraetere, 1995).

As illustrated by the examples presented below (with book titles, authors, and years of publication indicated in parentheses), this construction frequently appears alongside durational adverbials in literary texts.

- (14) *ra:t bhar* (*Umrao Jan Ada*, Mirza Hadi ‘Ruswa’, 1899)

meN khud ra:t bhar ro-ya: ki:  
 1Sg self night full cry-Pfv.M.Sg did.Pfv.F.Sg

‘I myself cried all night.’

- (15) *der tak* (*Ahmaqullazin*, Munshi Sajjad Hussain, 1906)

der tak dukh dard ka-ha: kiye  
 long until sorrow pain say.Pfv.M.Pl did.Impfv.Pl

‘They kept talking about sorrow and pain for a long time.’

(16) *ghantō* (*Firdaus-e-Barin*, Abdul Halim Sharar, 1899)

aur khud bhi:      te:re:              sa:th      ghaNton    khaR-ii:    ro-ya:  
 and self also.Part your.2Sg.Poss with.Postp hours      stand-Pfv.F cry-Pfv.M.Sg  
 ki:  
 did.Pfv.F.Sg

‘And I myself also stood and cried with you for hours.’

A list of adverbs used in the construction is provided below.

- |   |   |   |
|---|---|---|
| 1. <i>chay sa:l tak</i><br>‘for six years’              | 10. <i>ca:r din</i><br>‘four days’        | 20. <i>sadiyō talak</i><br>‘for centuries’        |
| 2. <i>der tak</i><br>‘until late’                       | 11. <i>cand lamhō</i><br>‘a few moments’  | 21. <i>kuch dinō</i><br>‘a few days’              |
| 3. <i>is samay</i><br>‘at this time’                    | 12. <i>cand mint</i><br>‘a few minutes’   | 22. <i>kuch der</i><br>‘some time’                |
| 4. <i>Ek mint</i><br>‘one minute’                       | 13. <i>din bhar</i><br>‘all day’          | 23. <i>kal sha:m</i><br>‘last evening’            |
| 5. <i>barsō</i><br>‘years’                              | 14. <i>din caRhe</i><br>‘until sunrise’   | 24. <i>guzray huay bars</i><br>‘in years gone by’ |
| 6. <i>badi: de:r</i><br>‘for a very long time’          | 15. <i>do sa:l tak</i><br>‘for two years’ | 25. <i>ghaRiyō</i><br>‘moments’                   |
| 7. <i>bohat de:r tak</i><br>‘for a very long time’      | 16. <i>ra:t bhar</i><br>‘all night’       | 26. <i>ghantō</i><br>‘hours’                      |
| 8. <i>pa:nc pehar</i><br>‘for 5 pehar i.e. 15<br>hours’ | 17. <i>ra:t ko</i><br>‘at night’          | 27. <i>mar-te: dam tak</i><br>‘until dying’       |
| 9. <i>tama:m shab</i><br>‘all night’                    | 18. <i>sa:re: sa:re: din</i><br>‘all day’ | 28. <i>mahi:nō</i><br>‘months’                    |
|   | 19. <i>shab ko</i><br>‘at night’          |   |

This specific semantic niche—the quantification of an atelic activity within a bounded timeframe—is key to understanding the construction’s eventual loss. Its functional space overlapped with two more general and stable constructions: 1. The simple imperfective for habituality (e.g., *ja:-ti thi* ‘used to go’). 2. The simple perfective for bounded atelic events, often with a durational adverb (e.g., *vo ra:t bhar roi* ‘she cried all night’).

We posit that this very specific semantic role made the perfective *-ya: kar* form functionally redundant. When the morphosyntactic conflict (Section 3.2) placed pressure on the construction, its narrowly defined meaning provided no functional incentive for speakers to preserve it. The language already had simpler, unproblematic ways to express the

same concept of a bounded atelic event, leading to the construction's disappearance from the perfective paradigm.

### 3.2 Syntax

The historical data reveals two critical and consistent syntactic properties of the perfective *-ya: kar* construction that are fundamental to explaining its eventual loss. These properties directly conflict with the core rules of Urdu grammar governing perfective transitives, creating an unstable configuration for speakers.

**1. Nominative Case Assignment.** Despite containing a transitive verb and a perfective auxiliary, the construction consistently requires its subject to be in the **nominative case**. This violates the standard rule of Urdu grammar where a transitive verb in the perfective aspect assigns **ergative** case to its subject (Butt & Deo, 2017). This holds true even when the embedded verb is clearly transitive, as shown in examples (17) and (20) below.

**2. Invariant Participle.** The *-ya:* element, a perfective participle, remains morphologically **invariant**. It is frozen in the default masculine singular form and does not agree in gender, number, or case with the subject or the object. This contrasts sharply with simple perfective verbs, which must agree with the object in gender and number.

The following examples from literary texts illustrate these properties. Critically, the subjects (e.g., *ja'fari:*, *Xa:-nam*) are nominative, and the participles (*ka-ha:*, *rakh-a:*) are invariant masculine singular forms, even when the context or the auxiliary's agreement suggests a feminine or plural subject.

(17) *ki:-ya: ki: (Fasana-e-Ajaib, Rajab Ali Baig Suroor, 1844)*

der tak akhlaaq o muhabbat malika:=ka: mazku:r kiya: ki:  
long until ethics and love Queen=GEN mention do.Pfv.M.Sg do.Pfv.F.Sg

'For a long time, she kept mentioning Queen's ethics and love.'

(18) *jhap-ka:-ya: kiye (Aag ka Dariya, Qurat-ul-Ain Haider, 1959)*

dono kuch der tak cup ca:p andhere=mẽ palkẽ jhap-kaya: kiye  
both some delay till silently darkness=in eyelids blink-Pfv do.Pfv.MPl

'Both blinked their eyelids for a while in the darkness in silence.'

(19) *ka-ha: ki: (Akhteri Begum, Mirza Hadi 'Ruswa')*

ja'fari: ap-ni: Dhi-Ta:-i: se jhu:T ka-ha: ki:  
Jafari self-Poss.F stubbornness-F from lie say-Pfv did-Pfv.F.Sg

'Jafari, with her stubbornness, kept telling lies.'

(20) *rakh-a: kī:(Umrao Jan Ada, Mirza Hadi 'Ruswa', 1899)*

mere na:m=ka: ta'ziyah kha:-num mar-te dam tak rakh-a:  
 my name=GEN taziyah Khanum die-Impfv.M breath until keep-Pfv  
 kī:  
 do-Pfv.F.Pl

‘Khanum kept the taziyah of my name until her last breath.’

(21) *dekh-a: kiye (Urdu-e-Mualla, Mirza Ghalib, 1869)*

agast=ke mahi:ne=ka: ha:l kuchh ma'lu:m nahī kal sha:m=ko  
 August=GEN month=GEN state some known not yesterday evening=GEN  
 do do moonDhe rakh kar ka-i: a:d-mi: dekh-a: kiye  
 two two stool keep having several person see-Pfv do.Pfv.M.Pl

‘The situation of the month of August is unknown-just last evening, several people were seen stacking two stools on top of each other.’

(22) *pi:s-a: kiya: (Safeena-e Gham-e Dil, Qurat-ul-Ain Haider, 1953)*

do saal tak mEN cakki: pi:s-a: ki-ya: aur meN-ne navaaRen  
 two year until 1Sg grinding.stone grind-Pfv do.Pfv.MSg and 1Sg-Erg tapes  
 bu-nī  
 weave-Pfv.F.Pl

‘For two years, I ground the millstone and I wove the yarn.’

These two properties — obligatory nominative subjects and an invariant participle — define the syntactic signature of the construction. However, they also created a conflict for speakers by requiring violation of the wide-ranging generalization that a perfective transitive clause have an ergative subject. This placed the construction under pressure. We propose that this underlying instability is the primary cause for its disappearance from the paradigm; speakers resolved the conflict by avoiding the construction entirely in the perfective, where case assignment paradox created a conflict.

#### 4 The *-ta: rah-* construction: A robust alternative

A crucial question arising from the paradigm gap in *-ya: kar* is whether it led to a loss of expressive power in the language. This can be examined by analyzing the *-ta: rah-* (‘keep V-ing’) construction, which exhibits no such gap and serves as a functional alternative for expressing sustained or continuous action. Its robustness across the entire aspectual paradigm is demonstrated below using the verb *ja:-* (‘to go’).

(23) a. Perfective:

vo cup ca:p sku:l ja:-ti: rah-i:  
 Dem silent silently school go-Impfv.F stay-Impfv.F

‘She kept going to school silently.’

- b. Imperfective:  
 vo sku:l ja:-ti: rah-ti: hai  
 Dem school go-Impfv.F stay-Impfv.F be.Prs.Sg  
 ‘She keeps going to school.’
- c. Subjunctive:  
 meN ca:h-ta: hũ: ki vo ek sa:l tak sku:l ja:-ti:  
 1Sg want-Impfv.M be.Prs.1Sg that Dem one year until school go-Impfv.F  
 rah-e  
 stay-Sbjv.3Sg  
 ‘I want that she keeps going to school for one year.’
- d. Future:  
 vo das sa:l tak sku:l ja:-ti: rah-e-gi:  
 Dem ten years until school go-Impfv.F stay-Sbjv.3Sg-Fut.F  
 ‘She will keep going to school for ten years.’
- e. Infinitive:  
 sku:l ja:-te reh-na: us=ki: a:dat hai  
 school go-Impfv.F stay-Inf 3Sg-Poss habit be.Prs.Sg  
 ‘Going to school is her habit.’
- f. Polite Imperative:  
 ro:za:na: sku:l ja:-ti: rah-iye-ga:  
 daily school go-Impfv.F stay-Sbjv.Pol-Fut  
 ‘Please keep going to school daily.’
- g. Plain Imperative  
 cup kar aur sku:l ja:-ti: rah  
 silent do.Imp.Inf and school go-Impfv.F stay.Imp  
 ‘Be quiet and keep going to school.’
- h. Future Imperative  
 tum ek sa:l sku:l ja:-ti: rah-na:  
 2Sg one year school go-Impfv.F stay-Inf  
 ‘You keep going to school for one year.’

The stark contrast between the two constructions is revealed in a minimal pair. The meaning intended by the lost perfective *-ya: kar* form is readily expressed by the perfective form of *-ta: rah-*.

- (24) a. Form not acceptable now  
 vo ro:z sku:l ja:-ya: ki:  
 Dem everyday school go.Pfv.M did.Pfv.F.Sg

‘She used to go to school everyday.’

b. Counterpart with *-ta: rah-*

vo ro:z sku:l ja:-ti: rah-i:

Dem everyday school go-Imfv.F stay-Pfv.F.Sg

‘She used to keep going to school everyday.’

The *-ta: rah-* construction, unlike *-ya: kar*, readily combines with the perfective aspect to express a continuous or sustained action in the past, similar to the intended meaning of the lost *-ya: kar* form in the perfective. This suggests that the semantic function associated with a past habitual or continuous action is still expressible in the language through an alternative grammatical construction.

## 5 Why the gap?

İleri & Demirok (2022) propose that the observed paradigm gap within Turkish desiderative constructions in the third-person plural arises from a confluence of factors. Firstly, the near-absence of attested instances of the *-AsI + 3PL* suffix combination in corpus data suggests a paucity of positive evidence available to learners. This lack of direct input, while not explicitly negative, may effectively function as implicit negative evidence, hindering the acquisition and production of the expected forms. Secondly, the presence of alternative, competing forms for the expression of third-person plural desideratives further contributes to the marginalization and eventual paradigm gap of the *-AsI* construction. The availability of these alternative forms reduces the necessity and, consequently, the frequency of the targeted construction, ultimately leading to its diminished usage and potential grammaticalization of the gap. Following the approach, we argue that the loss of the perfective *-ya: kar* form in Urdu can be attributed to a fundamental **syntactic conflict**. This conflict made the construction unstable, and its functional replaceability (shown in Section 4) allowed it to be abandoned without loss of expressivity.

### 5.1 Motivating the gap in Urdu

The diachronic absence of the perfective *-ya: kar* construction is best explained by a morphosyntactic conflict. The construction’s internal requirements directly contradict a core rule of Urdu grammar.

1. **General Rule:** A transitive verb in the perfective aspect (*kar*) requires its subject to be in the **ergative** case.
2. **Construction-Specific Rule:** The *-ya: kar* construction, even in its perfective historical form, consistently requires its subject to be in the **nominative** case, as evidenced by the examples presented earlier (e.g., the subject *ja’fari:* in (19), or *Xa:nam* in (20))s.

This conflict is not merely theoretical. It is exacerbated when the embedded verb (-ya:) is itself transitive. In such cases, **both verbs semantically imply an agentive subject**, yet the construction forbids the ergative case that would typically mark that agent. For instance, in the Example 17 the embedded verb *mazku:r kiya:* ‘mention’ is transitive, yet its implied subject (the narrator) remains nominative with the -ya: *kar* frame. This creates an unresolvable tension for the speaker. This clash in case assignment expectations for a single underlying subject likely rendered the perfective -ya: *kar* construction grammatically unstable, leading to its avoidance by speakers. The availability of alternative means to express habitual past actions (as seen in the modern avoidance and potential use of simple perfective with adverbs) further facilitated this disuse, resulting in the observed paradigm gap in contemporary Hindi-Urdu.

Our analysis of historical attestations provides quantitative support for this point of tension. The construction appeared with both transitive and intransitive verbs as shown in Table 1, Table 2 and Table 3.

Table 1: Frequency and Transitivity of Verbs with *kar* Forms

Verb	<i>kar</i> Form	Count	Transitivity	Counter Example
a:-ya:	ki:	1	intransitive	
baj-a:	kiye	1	intransitive	
badl-a:	kiya:	1	intransitive	
bars-a:	ki:	1	intransitive	
bhar-a:	kiye	1	intransitive	it can be transitive e.g <i>mEn ne gla:s men pani: bha-ra:</i> ‘I filled water into the glass’
bhunbhana:-ya:	ki:	1	intransitive	
bah-a:	kiya:	1	intransitive	it can be transitive e.g <i>taiz hawa dhu:l ba-ha: le gayi:</i> ‘The fast wind blew away the dust’
phir-a:	ki:	1	intransitive	
phir-a:	kiya:	1	intransitive	
taRp-a:	ki:	1	intransitive	
taRp-a:	kiya:	2	intransitive	
ter-a:	kiya:	3	intransitive	
ter-a:	kiye	1	intransitive	
Takra:-ya:	ki:	1	intransitive	
TamTama:-ya:	kī	1	intransitive	
Tehl-a:	ki:	1	intransitive	
Tehl-a:	kiye	1	intransitive	

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Table 1: Frequency and Transitivity of Verbs with *kar* Forms

Verb	<i>kar</i> Form	Count	Transitivity	Counter Example
ja-ya:	kī	1	intransitive	
jag-a:	ki:	1	intransitive	
jhilmila:-ya:	ki:	1	intransitive	
carcara:-ya:	kī	1	intransitive	
cal-a:	ki:	1	intransitive	
cal-a:	kiya:	1	intransitive	
cal-a:	kī	1	intransitive	
cal-a:	kiye	1	intransitive	
ro-ya:	ki:	7	intransitive	it can be transitive e.g. <i>wo ap-ni: qismat ko roya:</i> ‘He cried about his misfortune.’
ro-ya:	kiya:	1	intransitive	
ro-ya:	kī	1	intransitive	
so-ca:	kī	1	intransitive	
so-ya:	ki:	1	intransitive	
so-ya:	kiya:	1	intransitive	
kha:-ya:	ki:	1	intransitive	
khel-a:	ki:	1	intransitive	it can be transitive e.g. <i>ham ne krikaT ka mac khel-a:</i> ‘We played a cricket match’
kiya:	kiye	3	intransitive	
ga-ya:	ki:	1	intransitive	
ga-ya:	kiye	1	intransitive	
guzr-a:	kiye	1	intransitive	
ghūj-a:	kī	1	intransitive	
la:-ya:	kiye	1	intransitive	it can be transitive e.g. <i>wo seb la-ya:</i> ‘He brought apples.’
muskara:-ya:	kī	1	intransitive	
na:c-a:	ki:	1	intransitive	
hās-a:	ki:	1	intransitive	
hu-wa:	kiya:	1	intransitive	
hu:-wa:	kī	4	intransitive	

Continued on next page

Furthermore, two verbs appeared in both transitive and intransitive frames as shown

in Table 3 (e.g., *soc-a*: ‘thought (about something)’ vs. ‘thought’), demonstrating that the conflict was not limited to a few lexical items but was a pervasive structural feature of the construction.

Table 2: Frequency and Transitivity of Verbs with *kar* Forms

<b>Verb</b>	<b><i>kar</i> Form</b>	<b>Count</b>	<b>Transitivity</b>	<b>Counter Example</b>
baja:-ya:	kiya:	1	transitive	
baha-ya:	ki:	1	transitive	
behla:-ya:	ki:	1	transitive	
paRh-a:	ki:	1	transitive	
phūk-a:	kiye	1	transitive	
pher-a:	kī	1	transitive	
pehn-a:	kī	1	transitive	
pes-a:	kiya:	1	transitive	
jhapka-ya:	kiye	1	transitive	
cheR-a:	kiya:	1	transitive	
dekh-a:	ki:	7	transitive	
dekh-a:	kiya:	8	transitive	
dekh-a:	kiye	8	transitive	
rakh-a:	kī	1	transitive	
sun-a:	ki:	3	transitive	
sun-a:	kiya:	4	transitive	
sun-a:	kī	3	transitive	
sun-a:	kiye	1	transitive	
sun-a:-ya:	kiya:	1	transitive	
soc-a:	ki:	2	transitive	
kah-a:	ki:	1	transitive	
kah-a:	kī	1	transitive	
kah-a:	kiye	2	transitive	
ki-ya:	ki:	1	transitive	
ghur-a:	kiye	1	transitive	
laR-a:	kī	1	transitive	
laR-a:	kiye	1	transitive	
laga:-ya:	ki:	1	transitive	
laga:-ya:	kiye	1	transitive	
ma:r-a:	kiye	1	transitive	
mil-a:	kiye	1	transitive	

Continued on next page

Table 3: Verbs appeared as both transitive and intransitive

Verb	“Kar” Form	Transitive Count / Intransitive Count
soc-a:	kiye	2 / 2
soc-a:	kiya:	1 / 1
kha:-ya:	kiye	1/1

## 6 *dil kar*: an exception that survives

Our explanation for the loss of *-ya: kar* in the perfective implicates the absence of the ergative in a transitive perfective context. However in contemporary Hindi-Urdu, we find the complex predicate *dil kar* ‘heart do’, which does not license ergative in the perfective.

- (25) a. mera: dil kiya: ke mEN abhi: cala: ja:-ũ:  
 1Sg.Poss heart did that 1Sg now move go-Subjv.1Sg  
 ‘My heart desired that I leave right now.’
- b. us waqt mera: ba:har ja:ne=ko bahut dil kiya:  
 that time 1Sg.Poss outside go.Inf=GEN very heart do.Pfv.M.Sg  
 ‘At that time, I really wanted to go out.’
- c. sardi: itni: zi-ya:-da: thi: ke mera: garm ca:e pi:-ne=ko dil kiya:  
 cold so.much much was that 1Sg.Poss hot tea drink-Inf to heart  
 do-Pfv.M.Sg  
 ‘The cold was so much that my heart wanted to drink hot tea.’
- d. us ka: dil kiya: ke vo zor se hāse  
 3Sg.Poss heart did that 3Sg force with laugh-Subjv.3Sg  
 ‘His/Her heart desired that he/she laugh loudly.’

In all above examples ending with *dil kiya:*, the grammatical subject of the verb *kiya:* is *dil* ‘heart’. This subject is not marked with the ergative postposition *ne*. Why might this construction survive in the perfective when the *ya: kar* did not make it? We present two speculations.

1. The *dil kiya:* construction lacks a prototypical external argument (agent). As ergative marking in Urdu is typically licensed by agentive subjects of transitive verbs in the perfective aspect, the absence of such an argument in these constructions means the conditions for ergative assignment do not arise.
2. Perhaps it is relevant that *dil kiya:* construction, functioning as a more lexicalized Noun+Verb compound to express desire, exhibits less syntactic articulation compared to the *-ya: kar* structure, which is a more transparent syntactic combination of a perfective verb stem and an auxiliary to mark habitual aspect. This difference in structural composition and grammatical function likely contributes to why *kar* in *dil kiya:* does not license an ergative subject.

## 7 An implication for learning

Our diachronic account raises a significant synchronic question: how is this paradigm gap sustained in the mental grammar of contemporary Hindi-Urdu speakers? For simple verbs, speakers can productively apply aspectual morphology to novel or nonce words (e.g., they know that the perfective of a hypothetical verb *zimb* would be *zimb-aa*), suggesting that paradigm gaps for simplex verbs are rare and perhaps learned by negative evidence.

However, the *-ya: kar* construction is a complex, periphrastic pattern. We propose that the combinations of such complex constructions with specific aspects are likely learned not by productive rule but from **positive evidence** in the input. The modern gap persists because learners are exposed to no positive evidence for the perfective form. The absence of *\*-ya: ki:* in the input is interpreted as a systematic gap, not as an accident of frequency. This is bolstered by the presence of fully grammatical alternatives (*-ta: rah-*, simple perfective), which provide no functional motivation for learners to hypothesize the missing form.

Thus, the gap is sustained because the necessary triggering evidence for this specific combination is absent from the primary linguistic data, and the grammar has stabilized in a state where the construction is simply undefined for the perfective aspect.

## 8 Human evaluation

### 8.1 Experiment

This study was conducted in accordance with the principles outlined in the Declaration of Helsinki. The primary aim of this evaluation was to obtain direct, quantitative evidence from native speakers on the acceptability of the perfective *-ya: kar* construction in modern Urdu. Our hypothesis was that sentences containing the perfective form (e.g., *ro-ya: ki:*) would be judged as sharply unnatural compared to their modern counterparts expressing habitual past action.

#### 8.1.1 Participants

Twenty-one native speakers of Urdu (11 female, 10 male) were recruited for the study. Participant age ranged from 20 to 48 years. All participants reported having completed higher education. Participation was voluntary.

#### 8.1.2 Design and procedure

A forced-choice acceptability judgment task was designed. The stimulus set consisted of 20 unique sentences historically attested in 19th-century literature, featuring the perfective *-ya: kar* construction. For each historical sentence, a modern counterpart was created by replacing the perfective *-ya: kar* form with a grammatical alternative, most commonly the imperfective habitual form (*-ta: tha:/ti: thi:*).

Participants were presented with these 20 minimal pairs in random order. For each pair, they were asked the question: “Which sentence sounds more natural to you?” . They were forced to choose one of the two options. The experiment was administered digitally.

### 8.1.3 Results

The results were unequivocal and aligned perfectly with our hypothesis. Across all 20 items and 21 participants, generating 420 total data points, **not a single participant** selected the sentence containing the perfective *-ya: kar* construction as the more natural option. This represents a 0% acceptance rate for the historical form. All 420 responses (100%) favored the modern grammatical alternative.

This stark, categorical rejection of the perfective form provides powerful convergent evidence that supports our corpus findings and confirms that a robust paradigm gap exists in the modern grammar of Urdu speakers. The complete absence of any selection for the target construction indicates that its ungrammaticality is not a subtle or gradient effect but a definitive and stable feature of the contemporary linguistic system.

## 9 Conclusion

This study has demonstrated that the contemporary absence of the perfective *-ya: kar* construction in Hindi-Urdu is a paradigm gap resulting from grammatical change. Historical evidence from the late 19th century attests to its productive use, a usage characterized by its unique morphosyntactic signature: a nominative subject despite transitive embedded verbs and an invariant *-ya: participle*. We have argued that this very configuration created a fundamental syntactic conflict with the core ergative alignment of the perfective aspect in Hindi-Urdu. The convergence of evidence from historical texts, large-scale corpus data, and controlled native speaker judgment tasks strongly supports the hypothesis that this conflict led to the construction’s avoidance and eventual disappearance.

A critical part of our proposal is that the functional replaceability of *-ya: kar* by other constructions allowed this gap to become entrenched without any loss of expressivity. To further validate this mechanism of change, a crucial direction for future work is to conduct a comparative diachronic frequency analysis of the alternative *-ta: rah-* construction. Tracking the frequency of *-ta: rah-* in its habitual sense across the same historical corpus would allow us to test the hypothesis that its rise coincided with the decline of the perfective *-ya: kar* form. This would provide powerful quantitative evidence for the role of constructional competition and functional replacement in the creation of this paradigm gap.

As it stands though, our explanation is incomplete as we do not have an understanding as to what changed between 19th century Urdu and contemporary Urdu that led to the loss of *-ya: kar* in the perfective. The case conflict that we have implicated as being responsible for the loss existed in the 19th century as well. This unresolved puzzle we leave for future work.

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