

Tense and Aspect in Balti Language: Morphological Perspective

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Abstract

Pakistan is a multilingual and multicultural country where 72 language diverse languages are used for communication. Gilgit-Baltistan is one of the most well-known northern regions for its stunning natural beauty, distinct landscapes, evergreen forests, snow-capped mountains, and rich cultural heritage. Most of the Gilgit-Baltistan regional languages have been studied historically and culturally, but a few studies address this from a linguistic perspective. Balti language is one of them. Balti is a member of the more extraordinary Tibeto-Burman language family, specifically the Western Tibetan branch of the Tibetan language family. The present study analyses the tense and aspect markers in the Balti language. This study contributes to the regional language of Pakistan and analyzes the language in the morphological domain that is not mostly touched yet; also, studying tense and aspect markers in the Balti language from a morphological perspective is crucial for understanding the language's nuances within temporal expressions. The present study results show that Balti has a complex system of tense and aspect markers; using the qualitative research design, $n=50$ root words (verbs) were collected from the Balti language within the framework of inflectional morphemes of tense markers for this study. Nine markers for tense and some of their aspect, including *ed*, *en*, *s*, *yod*, and *yodpə*: *seṭ*, *ok*, *tok*, and *seḍoktok*, are identified in the current study. These markers are attached to the corresponding root verbs to indicate the present simple, present progressive, past simple with progressive, future simple, and future participle. The study also develops a deep understanding of various future tense markers as connectors to root words based on the consonant and vowel sounds at the end of root words.

Keywords: Tense Markers, Morphology, Root Verbs.

Introduction

Gilgit-Baltistan (GB), officially known as the "Northern Areas," is a crown-shaped area in Pakistan and India that occupies the northern half of Jammu and Kashmir. GB is home to the South, central, and west Asian states through its geographical connections, which provide a remarkable and irregular intersection of the vast continent of Central and South Asia (Aziz, 2017).

The cultural and linguistic variety of this area makes it popular. In this region, Shina is spoken by a large portion of the population in Gilgit, Astore, Diamir, and a small portion of Ghizar, Hunza, Nagar, and Baltistan (Ali, 2020). The largest concentration of Shina speakers is in these areas, but other languages, like Baltistan, are also spoken there. Although a small percentage of the population spoke Kashmiri and Pashto, most Baltistanis spoke Balti. Different regional languages in the region included Wakhi in upper Hunza and a few Ghizar villages, Khowar in Ghizar, Burushaski in Gilgit, Nagar, Gilgit, Punial, Yasin, etc.

Additionally, musician clans own a musical language that is both fascinating and unique. Domaaki is also found in this area. Although Muslims make up the majority, there is a

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noticeable split between Sunni and Shia Muslims, as well as Ismailis, Deobandis, and Noorbakhshi. Each of Pakistan's northern regions has its language. In a similar vein, Balti is the native tongue of Gilgit-Baltistan. "Baltiyul," which means "Balti state," is another name for Gilgit-Baltistan. The same language is spoken in Ladakh, a nearby Indian province (Pandey, 2011). Four million (400,000) people in GB (Gilgit-Baltistan) speak Balti, primarily in the center districts of Skardu, Shigar, Kharmang, and Khaplu (Abbas, 2016). Word formation produces millions of new words that change a word's grammatical category or tense (Lashari et al., 2023).

Tense and aspect markers are linguistic features that convey temporal and aspectual information about actions and events in language (Smith, 2020). Tense markers indicate the time of action or state relative to the time of speaking, providing temporal reference within sentences (Johnson, 2021). Aspect markers convey information about the nature of the action or event, such as its duration, completion, repetition, or ongoing status (Brown, 2022; Lashari et al., 2018). Tense and aspect markers contribute to the narrative structure by organizing events chronologically, distinguishing between past, Present, and future actions (Garcia, 2020; Lashari et al., 2023). The choice of tense and aspect markers can reflect verb semantics, influencing interpretations of actions in terms of their completeness, continuity, or momentary nature (Lee, 2021). Studying tense and aspect markers across languages (Magsi et al., 2023) reveals cross-linguistic variation in how temporal and aspectual distinctions are encoded, contributing to typological and theoretical analyses (Chen, 2022). The present study describes and categorizes the tense and aspect markers in Balti. Every language modifies the tense and aspects of its root verbs by adding different tense and aspect markers. For example, in Urdu *so*, the base verb 'sleep' has a suffix called *ā* added to it. According to Singh and Sharma (2011), it becomes the present imperfective *soā*: 'sleeps' and the past tense *soja*: 'slept' after the suffix *ja* is inserted. To make it progressive, another suffix is added, *sorta*: 'sleeping' and *ga*: with the root verb, it becomes the future *saga* 'will sleep.'

In contrast to several other Pakistani regional languages, Balti has yet to undergo linguistic influence. Therefore, the present study employed a morphological perspective to examine Balti's tense markers. The study examines tense and aspects in the Balti language, focusing on the morphological aspects that influence the formation of temporal expressions. The investigation focuses on comprehending how Balti, a Tibetic language, is predominantly spoken in the Baltistan region of Pakistan. This inquiry aims to understand the intricate relationship between tense, aspect, and morphological indicators in Balti verbs and their inflections. This research analyses complex morphological features, such as tense and aspect markers. The present work helps to enhance the understanding of the Balti language's morphological system and contributes to the knowledge of linguistic diversity.

Significance of Study

Approximately four million speakers commonly use Gilgit-Baltistan Balti in the region for communication. Much research has been conducted on the history, culture, and geography of Gilgit-Baltistan, but not linguistically. Due to the lack of research in the linguistic domain, more research needs to be done on morphology. The native speaker of Balti has completed the current study to find out the maximum possible number of markers and how they connect with the root verbs to change their tense aspects. This study will significantly contribute to linguistic research to preserve Balti for the future and serve the language.

Research Objectives

1. To analyze the tense and aspect markers in the Balti language.
2. To explain the categorization of the tense and aspect markers in Balti language.
3. To investigate the function of markers in producing the tense aspect of root verbs.

Literature Review

Tense markers are crucial in language structure, conveying temporal information about actions and events. In the context of regional languages in Pakistan, the use and morphology of tense markers vary significantly across different linguistic communities. This literature review explores the diversity of tense markers in regional languages spoken in Pakistan, highlighting critical studies and findings in the field. In Sindhi, tense markers exhibit rich morphological diversity based on person, number, and gender (Bukhari et al., 2023). According to Hussain (2018), Sindhi verbs inflect for present, past, and future tenses using suffixes such as -aan, -i-a, and -aheen, respectively. The study also notes variations in tense markers across different dialects of Sindhi. Research by Khan (2020) focuses on tense markers in Punjabi, highlighting the use of prefixes and suffixes to indicate tense. For example, the prefix (aan-) is used for future tense markers in particular Punjabi dialects. The study emphasizes the complexity of tense marking systems in Punjabi due to historical influences and regional variations. As Ahmed (2019) studied, Balochi tense markers demonstrate a combination of suffixes and auxiliary verbs to indicate past, present, and future tenses. The presence of auxiliary verbs like (ḡe) and (ṭe) alongside tense suffixes adds depth to the tense marking system in Balochi. Tariq (2017) delves into tense markers in Pashto, noting the use of suffixes and auxiliary verbs for tense distinctions. The study highlights the morphological changes in Pashto verbs to signal past, Present, and future tenses, providing insights into the linguistic complexity of tense marking in the language. Language is a flexible, interactive tooling that may be divided into smaller units like words, sentences, morphemes, and phonemes (Bukhari et al., 2023).

Following Morphology (Arnoff, 1983) explains the internal structure of words. Thus, to ascertain what modifications a root word needs to change its tense aspects, gender, pluralization, and morphological type, morphology looks at the original words and their different forms (Abbasi & Lashari, 2017).

Morphology is crucial in understanding how words are formed, including creating new words through affixation, compounding, and derivation (Bauer, 2018). Morphological analysis helps uncover words' meaning by examining the morphemes they contain. For example, morphological analysis can reveal the relationship between words like 'happy' and 'happiness' (Arnoff, 1976). Morphological structures contribute to syntactic rules and grammatical patterns within a language. For instance, inflectional morphemes indicate tense, number, and gender, influencing sentence structure (Spencer, 1991). Understanding morphology aids in language acquisition as learners grasp word formation and usage rules, leading to improved vocabulary skills (Pinker, 1999). The morphological evaluation of tense markers in Balti has been the subject of limited investigations, yet (Grierson, 1909) claims that "Balti" is the predominant language spoken in the territory of Gilgit Baltistan.

Balti language belongs to the Tibeto-Burman language, which follows a unique pattern, such as subject+object+verb. Hence, the sentence structure in Balti is sub+object+verb, just like Tibetan. The "tense and aspects markers" are a lesser aspect of Balti morphology analyzed in this study.

Languages around the world vary in the number of tense indications they have. In some languages, such as those spoken by the Aztecs from Central America, militias' "will attack" is described as mic (death)+tia (lead to)+s (the future); similarly, the present tense is denoted by the following in another language that is widely spoken in the Philippines: basa 'read,' bumasa 'read,' and babasa 'will read'(Yule, 2010).

The suffix that applies to indicate the Persian tense depends on the subject, according to Lotfi (2006). For instance, distinct suffixes are used in the first person singular raft-am 'I went,' the second person singular raft-i: 'you went,' and the singular third-person raft 'he/she went.'

Similarly, in Balti, there is also the insertion of suffixes can bay observed to change the aspect of tense such as zan is an infinitive verb in Balti 'to eat' ze- eq 'eats,' zo-s 'ate' zi-en 'eating.'

Methodology and Procedures

A qualitative research approach was followed while collecting the data for this study, which was carried out using native language speakers and documented sources. This investigation was conducted using the qualitative research method. A descriptive approach has been applied to examine the root verbs with various markers about tense and aspects. The nature of the study did this. The information is gathered from the source of the Balti language that has been documented and from people who speak Balti as their original language.

Results

Analysis of Tense Markers in Balti

Tense Marker in Present Simple/Indefinite

Verb roots that have the inflection "-eḡ" attached to them indicate the present tense (present imperfective marker), which in the case of vowels and consonants ends with a base verb. "rge" 'love' ends in the vowel "e," which converts "rge-eḡ" 'loves,' and "len" 'buy' ends in the consonant "n" which changes "len-eḡ" 'buys'. The root words "ḡug" and "ḡrol" both change to 'ḡug-eḡ' and 'ḡrol-eḡ' respectively, and "tjaḡ" turns into 'tjaḡ-eḡ' 'hits' respectively. Other root words that terminate in vowels also undergo similar alterations as stated above.

Table 1: Present simple/indefinite

Word	Meaning	Present imperfective marker	Meaning
Rge	love	rge-eḡ	loves
Len	buy	len-eḡ	buys
ḡug	sit	ḡug-eḡ	sits
ḡrol	walk	ḡrol-eḡ	walks
tjaḡ	hit	tjaḡ-eḡ	hits
ḡuḡ	drink	ḡuḡ-eḡ	drinks

Tense Aspect Marker in Present (Progressive)

When root verbs end in vowels or consonants, the inflection "-en" is added to generate the present participle aspect. The participle form of the base verbs "zar" 'say', "minn" 'provide', and "fiḡchol" 'request', which end in the corresponding consonants /r/, /n/, and /l/, accordingly, gets formed by inserting "-en." When "en" is added to the fundamental verbs "nḡo" 'cry', "bay" 'do', and "Rbe" 'mark', which end in the vowels "u," "e," and "i," respectively, they also transform into participles. Balti present participle verbs, like the equivalents in English, take a wide range of verbs that are auxiliary, including "yoḡ" for the tense of the present moment, "yoḡ-pa" for past events, and "doḡtḡk" for future use.

Table 2: Tense aspect marker in present (progressive)

Word	Meaning	Present progressive marker	Meaning
Zar	say	zar-en	saying
Minn	provide	minn-en	providing
nḡo	cry	nḡo-en	crying
Bay	do	bay-en	doing
Rbe	mark	Rbe-en	marking

Table 3: Progressive auxiliaries for present, past and future

Word	Meaning	Tenses	Auxiliaries	Meaning
təp	sow	Present	təp en-yoḍ	is sowing
tre	ask	Past	tre en-yoḍpə:	was asking
Khjoŋ	bring	Future	Khjoŋ en-ḍokṭuk	will be bringing

Markers for the Past Simple

The past indefinite "s" in Balti is connected to the base verbs in every case where the base words end in a sound that is consonant, regardless of if they end in a vowel sound. For example, the root verb "*phor*" "fly" has a consonant sound /r/ at the end, so with the addition of "s," the tense aspect changes into the past indefinite "*phor -s*" "flew." As another example, "*th əx*" "blend" also ends in a consonant sound, and by adding the exact same tense marker "s," aspect shifts like "*th əx -s*" "blended." The root verbs that finish in vowel sounds likewise adopt the same marker, as in "*Rbe*" "mark," "*Rbe-s*" "marked," "*Bay*" "do," and "*bay-s*" "did."

Table 4: Past indefinite marker

Word	Meaning	Tense marker	Meaning
phor	fly	phor -s	flew
t ^h əx	blend	t ^h əx -s	blended
t ^h ug	meet	t ^h ug -s	met
s ^h or	lose	s ^h or -s	lost

Past Perfect Aspect Marker

With both consonant and vowel sounds, the Balti transforms the tense aspect of the main verbs into the past perfect by inserting the perfective marker "set" at the end. For instance the root verbs for "gon" 'wear' and "jəix" 'keep' turns into "*gon-set*" for 'worn' and "*jəix-set*" for 'kept' respectively. The consonant sounds /n/ and /x/ are used to end "*dʒon*" 'ride' and "*dʒon-set*." The same tense marker is also applied to root verbs that end in vowels. For instance, "bay" 'do' "*bay-set*" 'done' verb that end in "e" and "*zgu*" ends on sound "u" similarly vowel sound ends, "*zgu-set*" "bent".

Table 5: Past perfect marker

Word	Meaning	Tense Aspect marker	Meaning
gon	Wear	gon-set	worn
jəix	Keep	jəix-set	kept
dʒon	Ride	dʒon-set	ridden
zgu	Bend	zgu-set	bent
K ^h or	Visit	K ^h or-set	visited

Analysis for the Possible Markers for Future

The future element of Balti is really interesting since several tense markers can be used to modify the tense aspect in future simple like "ok", "nok" "tok" "ik", and "in" but the implication of these markers are totally depend on the final sound of verb roots.

The future simple is marked with "ok" to indicate tense, when root verbs end with consonants.

In Balti "ok" specifies future simple in case the root verb is completing on such consonant sounds /t/ /r/ /l/ and /r/ for example, "k^her" 'take' "k^her-ok" 'will take' "r^hgjal" 'win' "r^hgjal-ok" 'will win' "ftfchol" 'request' "ftfchol-ok" 'will request' and "tfət" 'cut' "tfət-ok" 'will cut'.

Table 6(a): Future indefinite with "nok" as tense marker

Word	Meaning	Future marker	Meaning
k ^h er	take	k ^h er - ok	will take
r ^h gjal	win	r ^h gjal -ok	will win
ftfchol	request	ftfchol- ok	will request
tfət	Cut	tfət -ok	will cut

When a root verb ends in one of the consonants /m / or /ŋ /, such as "d^ham" for "shrink," "d^ham-nok" for "will shrink," or "ph^hŋ" for "send," "ph^hŋ-nok" for "will send," in Balti, "nok" denotes future indefinite. Since roots verbs end in "m" and "ŋ," both of the aforementioned examples have adopted the tense marker "nok."

Table 6(b): Future indefinite with "nok" as tense marker

Word	Meaning	Future marker	Meaning
d ^h am	Shrink	d ^h am- nok	will shrink
ph ^h ŋ	Send	ph ^h ŋ- nok	will send

Future indefinite with "tok" as tense marker

Basically the marker "tok" in Balti denotes the future indefinite. When a verb ends in one of the following consonants: /p/, /b/, /k/, or /g/, as in the cases of "t^hop" means 'get' and "t^hop-tok" 'will get,' The tense marker "tok" can be used for the root verb "d^həp" which means "kill," and "d^həp-tok," which means "will kill."

Table 7: Future indefinite with "tok" as tense marker

Word	Meaning	Future marker	Meaning
t ^h op	Get	t ^h op- tok	will get
d ^h ug	Sit	d ^h ug- tok	will sit
r ^h dəp	Kill	r ^h dəp - tok	will kill

Furthermore in the future aspect, when root verbs finish in vowel sounds, "in" will be employed as the marker in the indefinite tense of future. The tense markers for ending consonants are indicated above because in Balti, future tense characteristics vary according to the sound of the root verbs; For illustration some of the root verbs that are ending with vowel sounds proceed the marker "in" for instance, "fi" 'die' "fi-in" 'will die' "n^hɔ" 'cry' "n^hɔ-in" 'will cry' and "Rbe" mark "Rbe-in" 'will mark, "zo" 'eat' "ze-in" will eat.

Note: The tense marker "en" is used in the present progressive/continuous tense, which is considerably distinct from the tense marker "in" used in the future tense for root verbs ending in vowel sounds. Both the markers sound a little bit different.

Table 8: Root verbs finish in vowel sounds

Word	Meaning	Future marker	Meaning
ʃi	Die	ʃi-in	will die
nɲo	Cry	nɲo -in	will cry
Zo	Eat	ze-in	will eat

Future perfect markers

The future perfect marker in the Balti tense consists of two markers: "se" and "ḍokḍok," which are connected to root verbs that sound both consonant and vowel. As an illustration, "ṭ^hop" means 'get' in "ṭ^hop-seḍokḍok" and 'will have got' for "zar" and 'say' in "zar-seḍokḍok" and 'will have said' for "buḍ" 'fall' after the attachment of marker it becomes "buḍ-seḍokḍok" 'will have fallen' and "oṅ-seḍokḍok" 'will have come'.

Table 9: Future perfect marker

Word	Meaning	Tense marker	Meaning
ṭ ^h op	Get	ṭ ^h op-seḍokḍok	will have got
Zar	Say	zar-seḍokḍok	will have said
buḍ	Drop	buḍ-se ḍokḍok	will have dropped

Findings

The study examined the tense and aspect markers in the Balti language, focusing on their morphological nuances and implications. Through a comprehensive analysis, several key findings emerged. Firstly, the Balti language exhibits a rich system of tense markers denoting various temporal distinctions from past, present to future events. Additionally, aspect markers are crucial in indicating the duration, completion, or ongoing nature of actions. Following a descriptive examination of root verbs concerning aspects and tense, the study concluded that the Balti language had a sophisticated system for designating aspects and tenses. According to the survey, nine markers are typically employed with root verbs to modify the tense and its aspects. Moreover, there is a completely distinct marking system for the future tense based entirely on the vowel and consonant sounds at the end of the root verbs. The tense and aspect markers in Balti often involve morphological changes within the verb stem, indicating not just temporal information but also aspectual nuances.

Conclusion

As every language has different markers for the tense and aspects, this descriptive study analyzed a complex system of markers in Bali that highlights the vulnerability. The analysis claimed to have an extensive tense marking system in Balti; The current study discussed potential tense signals in Balti; the detailed description has also analyzed the number of markers that actively attached to the main Verb to change its aspect of tense; Balti consists of nine markers, including; "eḍ" "en" "s" "seṭ" "ok" "nok" "ṭok" "in" & "se ḍokḍok". Current study's findings also revealed the function of these mentioned markers after they are connected to root verbs. The markers usually combine at the end of root verbs to modification in tense aspects. For example; "eḍ" comes at the end of root verb to change the tense aspect in to present indefinite like *rge- eḍ* 'loves' in present progressive "en" joined with root verb *rgoḍ-en* 'laughing', "seṭ" used as aspect marker to change the aspect of tense into present perfect *zo-seṭ* 'eaten' Similarly "s" used in past simple as tense marker for instance *soṅ-s* 'went', study also revealed that there are different markers in Bali language for the future tense such as with root verbs ending on consonant sounds "ok" "nok" "ṭok" markers are used as according to the end

sound of root verbs such as in Future indefinite with root verb ending with vowel sound "in" like, *go-in* 'will die' Balti root verb is ending on vowel sound so "in" is used and to change the aspect of a tense with addition in same case "ok" and "tok" attached with the root verb ending with consonants such as; *kher-ok* 'will take' *ḡop- tok* 'will get' whereas for the future perfect tense "se doktok" marker is used with both cases of root verbs ending on vowel or consonant while the root verbs ending with nasal sounds take a different marker "nok" like *sk am-nok* 'will dry'.

Recommendations

The morphological perspective was used in this work to address the tense and aspect markers in Balti exclusively; other approaches or aspects of language, such as the plural marking system, compounding, reduplication, etc., fall under the same domain. To protect the language from harm, it is suggested that future scholars look into the abovementioned matter or pursue other linguistics research fields.

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