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Ghanshyam Sharma

On Hindi Participials

Abstract: Despite the fact that the vast literature on Hindi grammar has spent years addressing the Hindi participials, there remain unresolved questions regarding their semantic role, syntactic structure, and the variation and optionality in their agreement with the head noun. In terms of their semantic role, we argue that the two Hindi participial forms—the “verbal stem-*t-ā*” and the “verbal stem-*y-ā*”—indicate imperfective and perfective aspects, respectively, rather than present and past tenses, as some academics continue to believe despite much evidence to the contrary. Regarding their syntactic structure, this study substantiates earlier claims that alongside their use as finite verbs in the language, these participial forms are extensively employed as non-finite verb forms in the guise of attributive adjectives, predicative adjectives, adverbials, and adjectivized verbal nouns. The paper further contends that the perfective participial form *huā* of the verb *ho* ‘be’—which is seen appended to both imperfective and perfective participial forms—indicates a process of relativization. We maintain, in contrast to the bulk of Hindi grammars, that it is not appended merely as a matter of stylistic taste or personal preference. Instead, it is a fundamental element of the participial constructs. In general, it is only omitted when the prenominal participial in question has been or is in the process of being lexicalized or grammaticalized as an adjective, adverbial, or adjectivized noun. We also show that internal and external linguistic factors explain the optionality and variation in participial agreement in non-finite settings.

Keywords: Participials, Agreement, Aspects, Verbal Nouns, Hindi

1 Introduction

In Hindi, attaching the *-t-ā* suffix to the stem of the verb results in the formation of an imperfective participial,¹ whereas attaching the *-y-ā* (or *-ā* when the verb stem

¹ Throughout this paper, we will use the term “participial”, rather than “participle”, in order to highlight the difference between these two terms, in accordance with Burton-Page, who states that: “... the forms being considered here do not exactly correspond with what are described in the traditional grammars as ‘present (or imperfect) participle’ and ‘past (or perfect [sic, typo for ‘perfect’, GS]) participle’” (Burton-Page 1957: 94). The term “participial” can be loosely applied to a large number of verbal constructs in the Hindi language that express different verbal aspects. Examples of these participial constructs include: “verb stem-*t-ā* + *huā*” (imperfective participials), “verb stem-*ā* + *huā*” (perfective participials), “verb stem + *kar*” (absolutives or conjunctive participials), “verb stem-*t-ā* + *rah*” (continuatives), “verb stem-*t-ā* + *jā*” (progressives), “verb stem-*ā* + *kar*” (habituals), “verb stem + *cuk*”

ends in a consonant) suffix to the stem of the verb results in the formation of a perfective participial.² Despite the fact that grammarians and linguists have been working with these participial forms for a significant amount of time, there is still no complete agreement as to whether they express verbal tenses or aspects. A significant minority of academics continue to use the terms “present participle” and “past participle” to refer to “stem-*t-ā*” and “stem-*y-ā*” (Tiwari 1955; Sharma 1958; Hackman 1976; Hook 1979; Kachru 2006; Agnihotri 2007, amongst others), despite the fact that the vast majority of academics have recognized that these two structures represent only verbal aspects (Kellogg 1893; Greaves 1921; Burton-Page 1957; McGregor 1972; Van Olphen 1975; Pray 1982; Shapiro 1989; Montaut 2004, Bhatt 2005; Koul 2008; Subbarao 2012, amongst others). We argue, contrary to the beliefs of the first group of academics, that these two participials (as their names suggest) do indeed express only the imperfective and perfective aspects. They also form the foundation of the entire conjugational pattern used in the structuring of finite verbal paradigms in the Hindi language. As a matter of fact, except in a few cases (which we will come to later), these participials are always followed by an auxiliary verb, which carries with it a verbal mood and tense. It is important to note that auxiliaries, and never participials, are used in the marking of tenses in Hindi.

In addition to the aforementioned finite applications, these participials are also frequently employed as non-finite verbal constructions. The two forms they display when paired with a perfective participial of the verb *ho* ‘be’ or ‘become’ are as follows:

- the construct that involves an imperfective participial, built from the verb “stem-*t-ā*”, which is followed by the perfective participial form *huā* of the verb *ho* ‘be’. For the sake of convenience and clarity, we will refer to this throughout as an “imperfective construct” or “IPFV-construct”, as appropriate.

(completives), “oblique infinitive + *lag*” (inceptives), “oblique infinitive + *de*” (permissives), and “oblique infinitive + *vālā*” (a reduced relative clause containing habitual aspect), amongst many others. However, considering that the goal of this study is to describe how the imperfective and perfective verbal aspects are manifested in participial constructs in Hindi, only the first two constructs will be the subject of this work.

2 Regarding the subject of the historical development of the two participials at issue, we find Masica’s assertion convincing: “We turn, then, to Aspect as embedded in the suffixal morphology. NIA languages make use of two participles of OIA origin, the so-called Past Passive Participle in *-ta*, *-na*, *-ita* and Present Active Participle in *-ant-*, *-at-*, along with the plain stem of the verb, to develop their basic Aspect systems. Already built in, as it were, to the respective semantics of these components were the basic distinctions Perfective/ Imperfective/ Unspecified, or *completed* (more ‘precisely viewed’ as ‘complete’), *not-completed* (or ‘viewed’ as ‘in process’), and, logically, *not-yet-begun*. ... the {Perfective} marker developed from the productive form of the suffix in later Sanskrit, *-ita*. By the regular processes of phonological attrition in MIA and NIA this became *-ia* and thence *-i* or *-y-* ...” Masica (1991: 269).

- the construct that involves a perfective participial, which takes the form of the verb “stem-*y-ā*”, and the perfective participial form *huā* of the verb *ho* ‘be’. For the sake of consistency, we will refer to this as a “perfective construct” or “PFV-construct”, as appropriate.

This study contends that each of these two participial constructs is a shortened or reduced version of a relative clause. Thus the collocated perfective participial form *huā* of the verb *ho* ‘be’, is an essential part of these constructs. In fact, any omission of *huā* from the participial constructs indicates different phases in the continuous internal evolution of grammatical forms in the Hindi language. As non-finite verbs, these participial constructs can function as attributive adjectives, predicative adjectives, adverbs, and adjectivized verbal nouns, in addition to their finite uses in the language.

2 Hindi participials in finite verbal contexts

As can be seen in Table 1, the imperfective and perfective participials serve as the basis for the entire conjugational pattern for structuring verbs in the Hindi language. The fact that this pattern is used to create all the various forms of the verb is one of the reasons why it is so important to keep in mind that the marking of tenses in Hindi is always accomplished with auxiliary verbs, and never with participials.

Table 1: A complete inflectional inventory of the Hindi verb *ćal* ‘walk’ or ‘move’. AUX = auxiliary; SUBJ = subjunctive; FUT = future; IMP = imperative; IND = indicative; PROG = progressive; PRSM = presumptive; CTRF = counterfactual

Moods				Non-Aspectual								
SBJV	I	ćal-e										
FUT	II	ćal-e-gā										
IMP	III	ćal; ćal-o; ćal-ie										
Aspectual												
Imperfective								Perfective				
Habitual				Progressive								
	STEM	IPFV	AUX		STEM	PROG	AUX		STEM	PFV	AUX	
IND	IV	ćal	tā	Ø				XVI	ćal	ā	Ø	
	V	ćal	tā	he	XI	ćal	rahā	he	XVII	ćal	ā	he
	VI	ćal	tā	thā	XII	ćal	rahā	thā	XVIII	ćal	ā	thā
SBJV	VII	ćal	tā	ho	XIII	ćal	rahā	ho	XIX	ćal	ā	ho
PRSM	VIII	ćal	tā	hogā	XIV	ćal	rahā	hogā	XX	ćal	ā	hogā
CTRF	IX	ćal	tā	Ø								
	X	ćal	tā	hotā	XV	ćal	rahā	hotā	XXI	ćal	ā	hotā

2.1 The Hindi imperfective participial in finite verbal contexts

The imperfective participial is a fundamental component of the finite verbal paradigm in Hindi. In finite verbal contexts, it is followed by a conjugated form of the auxiliary *ho* ‘be’, which is the primary way of signaling the indicative, subjunctive, presumptive, and counterfactual moods. The same auxiliary verb is responsible also for the marking of present and past tenses when the mood is indicative, as seen in cases V and VI in Table 1. In addition, the imperfective participial can occur without an auxiliary in narrative contexts relating to the past, as is evident from case IV in Table 1. Accordingly, besides the many ways it can be employed in other grammatical contexts, we can say that the imperfective participial can be used in seven finite verb situations. In the interest of clarity, we will now present examples of these seven usages of the Hindi imperfective participial.

- (1) a. No. IV in Table 1 [commonly known as “habitual past”; unmarked for past tense; the default sense of past habitual has been conventionalized]
 un dinō vo roz ċār kilomīṭar pēdal ċāl-tā ...
 those days he every day four kilometers onfoot walk-IPFV.M.SG
 ‘Those days, he would walk four kilometers every day...’
- b. No. V in Table 1 [referred to as “present habitual”]
 vo roz ċār kilomīṭar pēdal ċāl-tā he
 he every day four kilometers onfoot walk-IPFV.M.SG AUX.IND.PRS.3SG
 ‘He walks four kilometers every day.’
- c. No. VI in Table 1 [typically referred to as “past habitual”]
 vo roz ċār kilomīṭar pēdal ċāl-tā thā
 he every day four kilometers onfoot walk-IPFV.M.SG AUX.IND.PST.M.3SG
 ‘(Last year) He walked four kilometers every day.’
- d. No. VII in Table 1 [formally referred to as “subjunctive habitual”]
 ho saktā he, vo roz ċār kilomīṭar pēdal
 it may be he every day four kilometers on foot
 ċāl-tā ho
 walk-IPFV.M.SG AUX.SBJV.3SG
 ‘It may be that he walks four kilometers every day.’
- e. No. VIII in Table 1 [referred to as “presumptive habitual”]
 zarūr hī, vo roz ċār kilomīṭar pēdal
 certainly he every day four kilometers onfoot
 ċāl-tā hogā
 walk-IPFV.M.SG AUX.PRSM.M.3SG
 ‘Certainly, he must be walking four kilometers every day.’

- f. No. IX in Table 1 [referred to as “counterfactual”]
 agar vo roz cār kilomīṭar pedal éal-tā ...
 if he every day four kilometers onfoot walk-IPFV.M
 ‘If he walked/had walked four kilometers every day...’
- g. No. X in Table 1 [referred to as “habitual counterfactual”]
 agar vo roz cār kilomīṭar pedal éal-tā hotā ...
 if he every day four kilometers onfoot walk-IPFV.M AUX.IPFV.M.3SG
 ‘If he walked/had walked four kilometers every day...’

2.1.1 The habitual aspect in Hindi

According to most grammarians and linguists of the Hindi language, the *-t-ā* suffix added to the stem of the Hindi verb for ‘walk’ or ‘move’ in examples (1a) through (1g) above must be viewed as an overt marker of the habitual aspect (Kellogg 1893; Greaves 1921; Pořízka 1963; Hook 1974; McGregor 1987; Pray 1982; Shapiro 1989; Masica 1991; Bhatt 2003; Montaut 2004; Kachru 2006; Bhattacharya 2022, amongst others). The sole justification for this assertion is that sentences in Hindi with an imperfective participial are akin to English sentences with a habitual aspect. The Hindi imperfective participial is also employed, however, in constructing counterfactuals, as in (1f), where it does not denote the habitual aspect of the verb; nor does it signal a habitual sense when used in any other non-finite context. It is also relevant to note that the habitual reading available in the sentences just discussed is made possible because of the presence of an adverb, *roz* ‘every day’, rather than through the use of the imperfective participial alone.

The most obvious question, therefore, is how a habitual grammatical aspect is articulated in Hindi. We maintain that the *-t-ā* suffix in Hindi is a marker of imperfectivity, not of habituality. When the imperfective participial is followed by the auxiliary, these combined forms impart, by default, a sense of habituality to the utterance. We assert that habituality in Hindi depends on the use of the imperfective participial and the auxiliary together to indicate the regular recurrence of events.

In fact, the examples containing an imperfective participial cited above refer to an indefinite number of events or actions and can be evaluated by comparing them to so-called “indefinite descriptions” as opposed to “definite descriptions” in the philosophy of language. As the set of examples that follows demonstrates, an imperfective participial form of the verb *ho* ‘be’, requires that either the subject noun phrase or the predicate must contain an indefinite reference.

- (2) a. ramū-kī śādī-mē sanskrit bhāṣā aham
 Ramu-of wedding-in Sanskrit language important
 [thī/ *hotī thī]
 [be.PST.F.3SG/ be.IPFV.F AUX.PST.F.3SG]
 ‘The Sanskrit language played a prominent role at Ramu’s wedding.’

- b. un dinō hindū śādiyō-mē sanskrit bhāṣā aham
 those days Hindu weddings-in Sanskrit language important
 [*thī/ hotī thī]
 [be.PRS.3SG/ be.IPFV.F.SG AUX.PST.3SG]
 ‘During those times, Sanskrit was prominent at Hindu weddings.’
- c. purāne zamāne-mē sanskrit bhāṣā aham
 old period-in Sanskrit language.F.SG important
 [thī/ hotī thī]
 [be.PST.F.3SG/ be.IPFV.F.S AUX.PST.3SG]
 ‘In the olden days, Sanskrit was an important language.’

As indicated above, the use of an imperfective participle in a sentence becomes improper when there is a definite reference in the same sentence. This is demonstrated in example (2a), where the imperfective participle of *ho* ‘be’, is incongruous because there is a definite noun phrase in the same sentence that translates to “Ramu’s wedding”. The imperfective participial turns into a felicitous form, however, when there is no definite reference in the sentence, as we can see in (2b), where the phrase “Hindu marriages” is a generic term that does not refer to any particular marriage. On the other hand, example (2c) is open to both habitual and non-habitual readings at the same time. The expression, “the olden days” can be seen as a definitive reference when contrasted with the expression “modern days”, thus allowing for a non-habitual reading of the phrase. This is because “the olden days” refers to a period of time before “modern days”. Alternatively, it is possible for the phrase to support a habitual reading, because there is no overt definite reference within the sentence itself, and pragmatically speaking, one can imagine an indefinite number of situations in which the Sanskrit language was important. In order to get a better grasp of the phenomenon known as indefinite description, it will help to look at a few more examples:

- (3) a. inḍian ām mīṭhe [hē/ hote hē]
 Indian mangoes sweet [be.IND.PRS.3PL/ be.IPFV.PL AUX.IND.PRS.3PL]
 ‘The Indian mangoes are sweet.’/ ‘Indian mangoes are generally sweet.’
- b. is sāl inḍian ām mīṭhe [hē/ *hote
 this year Indian mangoes sweet [be.IND.PRS.3PL/ be.IPFV.PL
 hē]
 AUX.IND.PRS.3PL]
 ‘Indian mangoes are sweet this year.’
- c. is bāg-ke ām aksar mīṭhe [*hē/
 this grove-of mangoes often sweet [be.IND.PRS.3PL/
 hote hē]
 be.IPFV.PL AUX.IND.PRS.3PL]
 ‘The mangoes of (from) this grove are often sweet.’

- d. is sāl is bāg-ke ām mīṭhe [hẽ/
 this year this grove-of mangoes sweet [be.IND.PRS.3PL/
 *hote hẽ]
 be.IPFV.PL AUX.IND.PRS.3PL]
 ‘This year the mangoes from this grove are sweet.’

As with example (2c), we see that (3a) is open to both habitual and non-habitual readings. Thus the speaker of the utterance may refer to “the Indian mangoes” in particular (with a default definite reference), as opposed to e.g. Brazilian mangoes, allowing a non-habitual interpretation to be considered. Or alternatively, “Indian mangoes” can be regarded as a generic term, allowing for a habitual reading. In contrast, the example in (3b) only permits a non-habitual interpretation since it has a precise reference, namely the temporal adverb “this year”. The adverb *aksar* ‘frequently’, gives expression (3c) a habitual meaning, whereas the definite adverbials *is sāl* ‘this year’ and *is bāg ke* ‘of this grove’ render expression (3d) non-habitual.

The aforementioned examples, (3a) through (3d), highlight the distinction Hindi makes between definite and indefinite references in the present habitual tense. The same distinction can be seen in the past habitual, as in (4a) and (4b), as well as in other grammatical moods such as the subjunctive (4c) and presumptive (4d)—a particular characteristic of the Hindi tense-aspect system:

- (4) a. us sāl inḍian ām mīṭhe
 that year Indian mangoes sweet
 [the/ *hote the]
 [be.IND.PST.3PL/ be.IPFV.PL AUX.IND.PST.3PL]
 ‘Indian mangoes were sweet that year.’
- b. us bāg-ke ām aksar mīṭhe [*the/
 that grove-of mangoes often sweet [be.IND.PST.3PL/
 hote the]
 be.IPFV.PL AUX.IND.PST.3PL]
 ‘The mangoes of (from) this grove were often sweet.’
- c. ho-saktā-he ki un dinō is bāg-ke ām mīṭhe
 be-may-AUX.PRS.3SG that those days this grove-of mangoes sweet
 [*hō/ hote hō]
 [be.SBJV.3PL/ be.IPFV.M.PL AUX.SBJV.3PL]
 ‘It may be that those days the mangoes from this grove were sweet.’
- d. zarūr hī un dinō is bāg-ke ām mīṭhe [*hōge/
 certainly those days this grove-of mangoes sweet [be.SBJV.3PL/
 hote hōge]
 be.IPFV.PL AUX.SBJV.3PL]
 ‘Those days mangoes from this grove must have been (generally) sweet.’

As is widely known, there are various types of habituals (Comrie 1976; Dahl 1985; Carlson 2012; Bertinetto & Lenci 2012), and these may also contain different layers of habitual aspectuality. This makes it difficult to provide a definition of habituality that encompasses all of its characteristics. According to Comrie:

The feature that is common to all habituals, whether or not they are also iterative, is that they describe a situation which is characteristic of an extended period of time, so extended in fact that the situation referred to is viewed not as an incidental property of the moment but, precisely, as a characteristic feature of a whole period. ... If the situation is one that cannot be protracted, then the only reasonable interpretation will involve iterativity. (Comrie 1976: 27)

In Hindi, the present habitual is generally used as a way of indicating that a particular activity happens frequently or regularly (5a), but it can equally be employed to indicate other situations such as: an action that is not a series of independent events (5b); a general state (5c); or a gnomic imperfectivity in sentences that have generic noun phrases as subjects (5d). It can also be used as a means of marking indefinite descriptions (5e).

- (5) a. mē roz sāt baje nāstā kartā hū̃
 I every day seven o'clock breakfast do.IPFV.M.SG AUX.IND.PRS.1SG
 'I eat my breakfast every day at 7 o'clock.'
- b. mē hindī parhtā hū̃
 I Hindi study.IPFV.M.SG AUX.IND.PRS.1SG
 'I study Hindi.'
- c. mē unhē jāntā hū̃
 I them know.IPFV.M.SG AUX.IND.PRS.1SG
 'I know him/her/them.'
- d. kisān khetī karte hē
 farmers agriculture do.IPFV.M.PL AUX.IND.PRS.3PL
 'Farmers do farming.'
- e. inḍian ām mīṭhe hote hē
 Indian mangoes sweet be.IPFV.M.PL AUX.IND.PRS.3PL
 'Indian mangoes are sweet.'
- f. abhī ātā hū̃
 just now come.IPFV.M.SG AUX.IND.PRS.1SG
 'I will come right away.'

In addition, it is common in spoken Hindi for the imperfective participial to be used to express the speaker's imminent commitments, as in (5f) above. However, this usage should be viewed more as a statement of a commissive speech act than as part of the Hindi tense-aspect system. A progressive (6a) or even a simple

perfective (6b)—which is generally used for actions or events that take place prior to the utterance time—can be employed to show the same commitment:

- (6) a. abhī ā rahā hū̃
 just now come PROG.M.SG AUX.IND.PRS.1SG
 ‘I am coming right away.’
 b. abhī āyā
 just now come.PFV.M.SG
 ‘I am there already!’

2.2 The Hindi perfective participial in finite verbal contexts

Grammatical aspectual perfectivity is a fundamental component of the formation of Hindi verbs. In fact, the perfective participial is employed in roughly one-third of the instances of Hindi verb constructions presented in Table 1. As with the imperfective participial, the perfective participial is usually followed by an auxiliary that exhibits mood and tense.

- (7) a. No. XVI in Table 1 [commonly known as “simple past”]
 vo kal ċār kilomīṭar pedal ċalā
 he yesterday four kilometers on foot walk.PFV.M.SG
 ‘He walked four kilometers yesterday.’
 b. No. XVII in Table 1 [commonly referred to as “present perfective”]
 vo āj ċār kilomīṭar pedal ċalā he
 he today four kilometers on foot walk.PFV.M.SG AUX.IND.PRS.3SG
 ‘He has walked four kilometers today.’
 c. No. XVIII in Table 1 [formally known as “past perfective”]
 vo kal ċār kilomīṭar pedal ċalā thā
 he yesterday four kilometers on foot walk.PFV.M.SG AUX.IND.PST.M.SG
 ‘He walked four kilometers yesterday.’
 d. No. XIX in Table 1 [typically known as “subjunctive perfective”]
 ho-saktā-he ki vo āj ċār kilomīṭar pedal
 be-may-AUX.PRS.3SG that he today four kilometers on foot
 ċalā ho
 walk.PFV.M.SG AUX.SBJV.M.SG
 ‘It may be that he has walked four kilometers today.’
 e. No. XX in Table 1 [usually referred to as “presumptive perfective”]
 zarūr hi, vo āj ċār kilomīṭar pedal
 certainly he today four kilometers on foot
 ċalā hogā
 walk.PFV.M.SG AUX.PRSM.M.SG
 ‘He must have walked four kilometers today.’

- f. No. **XXI** in Table 1 [typically known as “counterfactual”]

agar vo āj cār kilomīṭar pēdal
 if he today four kilometers on foot
 cālā hotā
 walk.PFV.M.SG AUX.IPFV.M.SG
 ‘If he had walked four kilometers today ...’

We have maintained throughout this analysis that the tenses in Hindi are represented solely through auxiliaries. How, then, is the tense indicated in (7a), which lacks an auxiliary, and is the form usually used to indicate the simple past? We argue that there is no specific marker of the past tense in (7a). The adverb, *kal* ‘yesterday’, is what indicates that the event occurred in the past. In the absence of such an overt time marker, the past reading is gained by default from the presence of the perfective participial form, since the perfective aspect generally denotes an action that takes place prior to the time of the utterance. In the literature, this perfective form without an auxiliary has been referred to as “indefinite perfect” (Kellogg 1893: 28; Greaves 1921: 215), “perfective” (McGregor 1972: 23), “simple perfective” (Shapiro 1989: 68), and “unspecified perfect” (Masica 1991: 293). Some academics (for example Comrie 1976: 107) prefer to refer to it as the “aorist tense” when comparing a perfective without an auxiliary to a perfective with an auxiliary. All of these names attempt to capture the specific characteristics of the perfective aspect in Hindi, which has various interpretations depending on the context. The unique case of Hindi perfectives fully supports the hypothesis put forward by Dahl (1985) that languages vary in the manner in which they delimit the perfective aspect. However, we argue that referring to the perfective form of a Hindi verb as the “simple past” (Kachru 2006: 148) is an error that does not contribute to the advancement of scientific knowledge.

The distinctive nature of the perfective verbal aspect in Hindi, which has recently stimulated an in-depth scientific discussion, cannot be adequately covered in this article. Despite this, it is worth including here a few brief remarks about recent findings that have shed light on the complexity of this issue. Broadly speaking, these studies offer methods of analyzing the complexity of the perfective aspect in Hindi that only slightly differ. For example, to deal with the role a “light verb” (also known as a vector verb) plays in complex predication in Hindi/Urdu, Butt and Ramchand (2005: 134) propose the decomposition of an event into three subevents: the causing event (e1), the causing process (e2), and the causing result state (e3). To explain the role of the perfective aspect in single rather than complex verb constructions, Singh (1998: 172) and Arunachalam and Kothari (2010) demonstrate that the perfective aspect in Hindi does not always imply the culmination of an event. Singh (1998: 172), for instance, examines the so-called “perfective paradox” by discussing the following example [original transliteration system adapted to that used in this paper]:

- (8) mē-ne āj apnā kek khāyā or bākī kal khāūgā
 I-ERG today mine cake eat.PFV and remaining tomorrow eat.FUT
 ‘I ate my cake today and I will eat the remaining part tomorrow.’

According to her analysis, the example in (8) is the case of the “neutral perfective” which, in the absence of an added light (or vector) verb, suggests a partitive rather than a completive reading. She asserts that: “the neutral perfective aspect and, consequently, the perfective paradox result from (a) the lack of articles [sic. in Hindi] and (b) the ambiguity that arises due to the various interpretations of bare NPs coupled with the possibility that telic event types may not be completed” (Singh 1998: 197).

In an effort to provide a truth-conditional account of the phenomenon of the perfective paradox, Altshuler (2013, 2014) argues that a Hindi simple verb perfective (as opposed to a compound verb perfective) gives rise to culmination entailments when it combines with achievement VPs; with nonachievements, the perfective aspect often leads to cancelable culmination implicature. He asserts that the example in (9a) “leads to the implication that the father crossed the threshold of the speaker’s home” because the follow-up in (9b), which attempts to negate this implication, is infelicitous.

- (9) a. pitā-jī hamāre ghar ā-ye
 father-HON our house come-ye
 ‘Father came to our house,
 b. #lekin hamārā ghar nahī ḍhūṛh sake
 but our house not find could
 but was unable to find our house.’ (Altshuler 2014: 737)
 [Original transliteration system adapted to that used in this paper]
- (9) c. pitā-jī hamāre ghar ā-ye
 father-HON our house come-PFV.M.PL
 ‘Father set out for our house,
 d. lekin hamārā ghar ḍhūṛh nahī pā-ye
 but our house find not be able to conclude-PFV.M.PL
 but did not succeed in finding our house.’

However, his affirmation is primarily based on a mistaken assessment of (9a), due to the selection of an inappropriate verb in (9b)—*saknā* ‘to be able to set out to do something’ instead of *pānā* ‘to be able to bring an action to culmination’. If we choose the correct verb, the sentence becomes fully felicitous, and does not imply that the father crossed the threshold of the speaker’s home, as (9c) and (9d) show. In this case (9c) implies that father set out for the speaker’s house (not that he crossed the threshold of the house) and (9d) indicates that father didn’t cross the threshold of the house, which makes the presence of (9d) felicitous. Consider the

identical situation presented in (10a) and (10b), with slight modifications, as well as (10c), which contradicts Altshuler's thesis.

- (10) a. *dādā-jī, āp kal naye ghar kyō nahī āye*
 grandpa-HON, you.PL yesterday new home why not come.PFV.M.PL
 'Grandpa, why didn't you come to our new home yesterday?'
 b. *are mē āyā to thā, lekin tumhārā ghar*
 hey I come.PFV.M.SG EMP AUX.PST.M.SG but your house
ḍhūṛh nahī pāyā
 find not be.able-to-conclude.PFV.M.SG
 'Hey, I did come, but was unable to find your house.'
 c. *śor-ne darbazā toṛā, lekin tūṭā nahī*
 thief-ERG door.M.SG break.TR.PFV.M.SG but break.INTR.PFV.M.SG not
 'The thief broke the door, but (it) didn't break.'

By the perfective participle *āyā* 'came' in (10b), the grandfather is attempting to convey that he set out to be at his granddaughter's residence, but was unable to locate it. In fact, the grandfather did not cross the threshold of the house. Similarly, in (10c), the thief broke the door, but, to his dismay, it didn't break.

The ongoing discussion demonstrates that the issue is considerably more complicated than one might initially believe. Altshuler (2013, 2014) provides an incomplete picture of Hindi perfectives. We affirm that this has been due to inaccurate analysis of the Hindi data which necessitates additional research into the "perfective paradox".

With this in mind, it may be advantageous here to highlight the peculiar characteristics of the perfective aspect in Hindi. In reality, the same perfective participial, when combined with an adverb such as *roz* 'every day', may give a sentence a habitual rather than a completive reading. This supports the observation made by Singh (1998) that the neutral perfective, particularly in the case of atelic verbs, does not indicate completion or culmination of the action or event reported, as is demonstrated by example (11):

- (11) *un dinō vo roz cār kilomīṭar pēdal cālā*
 those days he every day four kilometers onfoot walk.PFV.M.SG
 'Those days, he would walk four kilometers every day.'

In conclusion, we concur with scholars (such as Filip 2017: 167, amongst others) who claim that the perfective aspect is a highly diverse grammatical category, both in terms of its structure and the semantic characteristics it assumes in natural languages. An exhaustive study of the Hindi perfective aspect would involve not only an investigation of the many layers of the perfective aspect itself (Hofherr and Laca 2011), but also a detailed classification of telic and atelic verbs in Hindi, as well as

a comprehensive account of the function of so-called vector and factor verbs along the lines of the research developed by Hook (1974, 1978, 1979).

3 Hindi participials in non-finite contexts

As stated in the preceding sections, the imperfective and perfective participials, with the addition of the perfective participial *huā* of the verb *ho* ‘be’, constitute what we can refer to as the IPFV-construct and PFV-construct, respectively. Even though the literature on Hindi grammar provides numerous explanations for the presence of the second element *huā*, it is universally regarded as a discretionary component that may be introduced at will (Kellogg 1893; Greaves 1921; Burton-Page 1957; Sharma 1958; McGregor 1972; Shapiro 1989; Kachru 2006; amongst others).³ In fact, according to the majority of Hindi grammars, the bracketed *huā* element is optional, as shown in Table 2:

Table 2: Full form of IPFV-construct and PFV-construct

		Component 1	Component 2
1. IPFV-construct	Imperfective participial:	stem- <i>t-ā</i>	(<i>huā</i>)
2. PFV-construct	Perfective participial:	stem- <i>y-ā</i>	(<i>huā</i>)

No effort has yet been made to investigate the precise role that *huā* plays in the formation of these two constructs. Engaging in such an investigation might enable us to comprehend the morphological development of the overall Hindi tense-aspect system, but it would undoubtedly require in-depth research into the full volume of the available historical data, a task that is beyond the scope of this paper. A cursory examination, however, reveals that in order for any participial to work in a similar way to an attributive adjective, an element that can be related to the head noun needs to be selected. Therefore, in the Hindi construction *rotā huā laṛkā*, which translates as ‘the weeping boy’, the quality of ‘weeping’ must somehow be attributed to ‘boy’ in order for the meaning to make sense. This calls for a verb that indicates the status of the lexical head ‘boy’. It should come as no surprise that the

³ McGregor summarizes the widely held view among Hindi grammarians regarding the use of *huā* in the following manner: “The form हुआ *huā* may occur following and in the same concord as non-finite participles, in most cases where there is a clear implication that the participles denote a certain condition or a continued state of activity. If such an implication is strong, हुआ *huā* is more likely than not to occur.” (McGregor 1987: 156)

perfective aspect of the verb *ho* ‘be’ or ‘become’,⁴ is the one form that can be used to successfully accomplish this task. The meaning of the word *huā* ‘been’, in the phrase *rotā huā laṛkā*, can therefore be stated as follows: “a boy who is or has been engaged in the imperfective activity of ‘weeping’.”

These speculative, yet perfectly plausible, explanations point to various crucial stages in the language’s internal historical process of grammaticalization (which we will come to later in Section 3.3), as both the IPFV-construct and the PFV-construct are clearly reduced relative clauses. We argue that *huā* is an essential component of both the IPFV-construct and the PFV-construct, not an additional or supplementary component, as many academics believe. Historically speaking, the IPFV-construct in *rotā huā laṛkā* ‘weeping boy’ and the PFV-construct *bethā huā laṛkā* ‘seated (sitting) boy’ are the shortened or reduced forms of the full relative clauses (*laṛkā*) *jo ro rahā hē* ‘(the boy) who is weeping’ and (*laṛkā*) *jo bethā hē* ‘(the boy) who is seated (sitting)’, respectively (see Table 3 below). Note that both these relative clauses contain an auxiliary *ho* ‘be’ or ‘become’, the presence of which is therefore shown to be necessary in both IPFV-constructs and PFV-constructs. Consequently, the usage of *huā* needs to be viewed differently: the *huā* is not a supplementary component; it is omitted in certain contexts in accordance with the lexicalization and grammaticalization principles of the Hindi language. It has also been widely argued that participials are verbs disguised as non-finite constituents such as adjectives or adverbs (see Lowe 2016, 2020; Van Eynde 2021). If we examine the structure of the Hindi IPFV-construct and PFV-construct, we can see that the appended *huā* is a crucial element, as it adds the continuative aspect to the stative adjectivized participials, as illustrated in examples (12a) and (12b):

- (12) a. [**rotā** **huā**] laṛkā so gayā
 [weep.IPFV.M.SG be.PFV.M.SG] boy sleep go.PFV.M.SG
 ‘The weeping boy fell asleep.’
 b. kursī-par [**bethā** **huā**] laṛkā so gayā
 chair-on [sit.PFV.M.SG be.PFV.M.SG] boy sleep go.PFV.M.SG
 ‘Seated in a chair, the boy fell asleep.’
 c. [**kharā** **huā**] laṛkā rone lagā
 [standing.M.SG be.PFV.M.SG] boy weep.OBL begin.PFV.M.SG
 ‘The standing boy began weeping.’

In examples (12a), (12b), and (12c), *huā* is collocated with an imperfective participial, a perfective participial, and a “pure” adjective, respectively. The presence of *huā* in each of these cases is necessitated by the finite verbs in the respective

⁴ The Hindi verb *ho* (from Sanskrit *bhavati*) can have two meanings, depending on the context: ‘be’ or ‘become’.

predicates. This is because *huā* adds a continuative aspectual element to the respective participial or adjective. In fact, the boy fell asleep in (12a) and (12b) while he was in a continuative state of “weeping” and “sitting”, respectively. Similarly, in the case of the adjective *khaṛā* ‘standing’ in (12c), *huā* adds to the state of “standing” the continuative aspectual element required by the finite verb “began weeping”. This indicates that *huā* is frequently used with IPFV-constructs, PFV-constructs, and adjectives, when its presence is required by the finite verb; it can be omitted when the primary finite verb does not require a continuative aspectual element in a participial or adjective. In examples (13a) through (13c), *huā* is either ungrammatical, redundant, or infelicitous, because the subject of the adjuncts, the boy, is not the subject of the verbs in the predicates:

- (13) a. [rote *hue] laṛke-ko bulāo
[weep.IPFV.OBL.M.SG be.PFV.OBL.M.SG boy-ACC call.IMP.2.PL
'Call the weeping boy.'
- b. kursī-par [beṭhe *hue] laṛke-kā
chair-on [sit.PFV.OBL.M.SG be.PFV.M.SG boy.OBL-GEN.M.SG
nām gopāl he
name Gopal be.PRS.M.SG
'The name of the boy, who is seated in the chair, is Gopal.'
- c. [khaṛā *huā] laṛkā merā bhāi he
[standing.M.SG be.PFV.M.SG] boy my brother be.PRS.M.SG
'The standing boy (= the boy who stands) is my brother.'

We hope to have demonstrated that *huā* is not a modifier that can be appended to the main participial at will. Rather, it is a crucial component of both the IPFV-construct and the PFV-construct, whose absence is determined by the main finite verb.

After examining the uses and features of *huā* in the IPFV-construct and the PFV-construct, the next step is to examine what exactly these constructs are. As mentioned at the beginning of this paper, we maintain that these constructs are reduced relative clauses. The question that needs to be answered at this point is which relative clauses are shortened or condensed in these two Hindi participial constructs.

3.1 Imperfective participial construct (IPFV-constructs)

As mentioned earlier, in non-finite contexts, the imperfective participial can act as an attributive adjunct to a head noun, a predicative adjective agreeing with the subject, a free adverbial adjunct displaying oblique features, or even as an adjectivized noun, as we will see in the next sections. In each of these contexts, it expresses an imperfective verbal aspect only. As is evident from Table 3, an IPFV-construct is

a reduced form of a full relative clause. The tense of this full relative clause is determined by the primary finite verb that appears in the sentence.

As we saw in the previous sections, an imperfective participial form gives rise to the habitual aspect in finite verbal settings. In non-finite verbal settings, however, it indicates a progressive or continuous aspect. In fact, an expanded version of the IPFV-construct always contains the progressive or continuous aspect rather than the habitual aspect.

Table 3: The IPFV-construct and its expanded clause

The IPFV-constructs			Expanded relative clause
rotā	huā	laṛkā	laṛkā [jo ro rahā hē]
weep.IPFV.M.SG	be.PFV.M.SG	boy	→ boy REL weep PROG AUX.PRS.SG
‘The weeping boy.’			‘The boy who is weeping.’
			laṛkā [jo ro rahā thā]
			→ boy REL weep PROG AUX.PST.M.SG
			‘The boy who was weeping.’

This is because, like an IPFV-construct, a PFV-construct provides a definite aspectual reading instead of the indefinite aspectual reading provided by the habitual aspect.⁵ When it comes to the various tense markers which we see in the expanded relative clauses in Table 3, these are provided by the tenses of the principal finite verb. These tense properties are not part of the IPFV-construct, as can be illustrated by the dataset in (14):

- (14) a. [rote hue] baćće ko mā
 [weep.IPFV.M.OBL be.PFV.M.SG.OBL] child-ACC mother
 dūdh pilā rahī hē
 breast-feed PROG.F.SG AUX.PRS.SG
 ‘The mother is breast-feeding the weeping child.’
 b. [jo baćcā ro-rahā hē] use mā dūdh pilā rahī hē
 [REL child weep-PROG AUX.PRS] him mother breast-feed PROG AUX.PRS
 ‘The mother is breast-feeding the child who is weeping.’
 c. [rote hue] baćće-ko mā
 [weep.IPFV.M.OBL be.PFV.M.SG.OBL] child-ACC mother
 dūdh pilā rahī thī
 breast-feed PROG.F.SG AUX.PST.SG
 ‘The mother was breast-feeding the weeping child.’

⁵ The *vālā* construction in Hindi, which functions as a shortened version of a relative clause with a habitual (i.e., indefinite aspectual) reading, is not the focus of this study.

- d. [jo baććā ro-rahā thā] use mā̃ dūdh pilā rahī thī
 [REL child weep-PROG AUX.PST] him mother breast-feed PROG AUX.PRS
 ‘The mother was breast-feeding the child who was weeping.’

As we can see, the tenseless IPFV-construct *rote hue baćće ko* ‘weeping child-ACC’ in (14a) and (14c) corresponds, respectively, to the two different expanded relative clauses in (14b) and (14d). The example in (14b) exhibits the present tense in accordance with the present tense marker in the principal finite verb, while the expanded relative clause in (14d) shows a past tense marker consistent with the past tense of the main finite verb. This suggests that an imperfective participial construction does not have its own tense; rather, the tense of the principal finite verb merely replicates in the IPFV-construct. Consequently, it can be safely affirmed that both imperfective and perfective participials only mark grammatical aspect, not tenses.

3.2 Perfective participial constructs (PFV-constructs)

A perfective participial serves the same purpose as an imperfective participial in non-finite syntactic settings. Like the imperfective participial, it is a shortened relative clause. If the relative clause includes an intransitive verb, it is related to the subject, as examples (15a) and (15b) illustrate. However, if it contains a transitive verb, it refers to the object rather than the subject. It has been argued that perfective participials often have a passive meaning (Greaves 1921: 239, 248). This can only be the case, however, when the perfective participial contains a transitive verb, as is evident in examples (15c) and (15d):

- (15) a. [soyā huā laṛkā] bistar-se gir gayā
 [sleep.PFV.M.SG be.PFV.M.SG boy.M.SG] bed-from fall go.PFV.M.SG
 ‘[The slept (sleeping) boy] fell off the bed.’
 b. [jo laṛkā bistar-par soyā huā thā] vo
 [REL boy bed-on sleep.PFV.M.SG be.PFV.M.SG AUX.PST.M.SG] that
 gir gayā
 fall go.PFV.M.SG
 ‘[The boy who was sleeping (slept) on the bed] fell off.’
 c. gopāl-ne [likhī huī ćīṭṭhī] jalā dī
 Gopāl-ERG [write.PFV.F.SG be.PFV.F.SG letter] burn give.PFV.F.SG
 ‘Gopal burned [the written letter].’
 d. gopāl-ne [jo ćīṭṭhī likhī] vo jalā dī
 Gopāl-ERG [REL letter.F.SG write.PFV.F.SG] that burn give.PFV.F.SG
 ‘Gopal burned the letter [which he had written].’

Both intransitive and transitive verbs can produce perfective participials, and both types of perfective participials can serve as attributive adjectives, predicative adjectives, and adverbs. The perfective participial derived from an intransitive verb denotes a subject, so its expanded clause is always in the active voice, as is illustrated by (16a) and (16b). The perfective participial derived from a transitive verb, on the other hand, typically denotes the object, so its expanded clause is generally thought to be in the passive voice. However, it can also refer, through different case relations, to a subject (an agent or actor), as in (16c), (16d) and (16e), thereby exhibiting the active voice. When the participial is used as an adverbial, it carries an inherent case, is indeclinable, and displays oblique features. It is difficult to obtain an extended form of these participials since they do not refer to a head noun, as in (16f) and (16g), where the participials do not refer to the subjects “ten years” and “we”.

- (16) a. Intransitive verb; Active voice:
 [soyā huā baććā] ...
 [sleep.PFV.M.SG be.PFV.M.SG child]
 ‘A slept (sleeping) child’ = ‘A child who is slept (sleeping)’
- b. Intransitive verb; Active voice:
 [jalī huī roṭī] ...
 [burn.PFV.F.SG be.PFV.F.SG bread]
 ‘(A loaf of) burnt bread’ = ‘A loaf of bread which is burnt’
- c. Transitive verb; Active voice:
 [sir kaṭī huī lās] ...
 [head cut.PFV.F.SG be.PFV.F.SG corpse]
 ‘A beheaded corpse’ = ‘A corpse whose head is cut off’
- d. Transitive verb; Active voice:
 [kām sikhā huā nōkar] ...
 [skills learn.PFV.M.SG be.PFV.M.SG servant]
 ‘A skilled servant’ = ‘A servant who has acquired a skill’
- e. Transitive verb; Active voice:
 [mūh-mē gośt-kā ṭukṛā dabāe hue]
 [mouth-in meat-GEN piece hold.PFV.M.OBL be.PFV.M.OBL]
 ‘Holding a piece of meat in the mouth’ = ‘While holding a piece of meat in the mouth’
- f. Intransitive verb; Active voice:
 [pitā-jī-ko mare] das sāl ho gae
 [father-HON-ACC die.PFV.OBL] ten years be go.PFV.M.PL
 ‘It has been ten years since father died.’
- g. Intransitive verb; Active voice:
 [din éarhe] ham bāhar nikle
 [day climb.PFV.OBL] we outside come out.PFV.M.PL
 ‘When the sun was high up, we stepped outside.’

3.3 The historical development of Hindi participials

In Section 3, we argued that *huā* is an essential component of both imperfective and perfective participial constructions, but that it can be omitted in certain contexts. The internal structural evolution of Hindi participials reveals at least four stages of continuing grammatical development which can be referred to as processes of lexicalization:

Definitivization > Relativization > Adjectivization > Substantivation

Grammaticalization is the historical transformation of the function of lexical items. Nouns and verbs, for instance, may take on a secondary role over time by assuming the form of case markers, auxiliaries, connectives, aspect markers, adjectives or adverbs (Givón 2001; Hopper and Traugott 2003). Obviously, the shift in function of Hindi participials seen in Table 4 cannot be compared to the technical term “grammaticalization”. However, if we widen the scope of this term, we can profitably use it to trace the evolution of the roles of the grammatical categories such as participials, adjectives, and adverbials. Despite the speculative nature of trying to determine which lexical class precedes another, it is possible to construct a plausible depiction of the evolution of the IPFV-construct and the PFV-construct in Hindi, as in Table 4.

We contend that there are multiple phases of evolution between the stems *ro* ‘weep’ and *bēṭh* ‘sit’, and the non-finite final substantivized *rotā* (which means ‘the weeping [being]’) and *bēṭhā*, (which means ‘the seated [being]’), with at least four of these stages being easily distinguishable from each other. As can be seen in Table 4, an imperfective participial contains the quality of, or can be expanded into, a progressive, rather than the habitual tense. Between the habitual and the periphrastic progressive, for imperfective participials, the first alteration, known as “definitivization”, occurs. In truth, an imperfective participial might be better viewed as derived from or containing (and therefore being equivalent to) a periphrastic progressive rather than the habitual, which is by definition indefinite. This transformation is unnecessary for perfective participial clauses because the aspect they include is already definitive. The second phase of transformation is referred to as “relativization”, indicating the process by which a definite clause gets relativized. Between “relativization” and “substantivation” is a two-step process known as “adjectivization”, which converts the relative sentence in question into an adjective. The final stage of this transformation (known as “substantivation”) converts an adjectival participial into a substantivized noun.

Clearly, not all participials reach the “substantivation” stage, but there are numerous expressions in which a Hindi participial functions as a noun, such as those highlighted in bold in examples (17a) through (17f):

Table 4: From relative clause to various uses of the IPFV-construct and PFV-construct

Stages	Development of an IPFV-construct “weeping boy”	Development of a PFV-construct “seated boy”
	laṛkā rotā he boy weep.IPFV.M.SG AUX.PRS.SG ‘The boy weeps.’	
I ↓	<i>Definitivization</i>	
	laṛkā ro rahā he boy weep PROG.M.SG AUX.PRS.SG ‘The boy is weeping.’	laṛkā beṭhā he boy sit.PFV.M.SG AUX.PRS.SG ‘The boy is seated (sitting).’
II ↓	<i>Relativization</i>	
	jo ro rahā he REL weep PROG.M.SG AUX.PRS.SG ‘The [boy] who is weeping.’	jo beṭhā he REL sit.PFV.M.SG AUX.PRS.SG ‘The [boy] who is seated (sitting).’
	<i>Genesis of the reduced relative clause</i>	
	rotā huā laṛkā weep.IPFV.M.SG be.PFV.M.SG boy ‘The weeping boy.’	beṭhā huā laṛkā sit.PFV.M.SG be.PFV.M.SG boy ‘The seated (sitting) boy.’
III ↓	<i>Adjectivization stage 1</i>	
	rotā huā laṛkā	beṭhā huā laṛkā
	<i>Adjectivization stage 2</i>	
	rotā huā laṛkā	beṭhā huā laṛkā
IV ↓	<i>Substantivization</i>	
	rotā huā laṛkā	beṭhā huā laṛkā

- (17) a. **martā** kyā na kartā
die.IPFV.M.SG what not do.IPFV.M.SG
‘What wouldn’t a dying (man) do?’
- b. **martō-ko** bacānā cāhie
die.IPFV.PL.OBL-ACC save.INF should
‘We should save the dying (people).’
- c. **soyō-ko** mat jagāo
sleep.PFV.M.SG.OBL-ACC not wake up.2IMP
‘Don’t wake up the slept (those sleeping).’
- d. **sotō-ko** sone do
sleep.IPFV.M.SG.OBL-ACC sleep.INF.OBL give.2IMP
‘Let the sleeping (men) sleep.’
- e. **ḍūbte-ko** tinke-kā sahārā kāfi
drown.IPFV.M.SG.OBL-DAT straw-GEN support enough

- hotā he
 be.IPFV.M.SG AUX.PRS.3SG
 ‘(Even) a straw may be good support for a drowning (man).’
- f. āp merā kahā nahī sunte
 you my say.PFV.M.SG not listen.IPFV.M.2PL
 ‘You don’t listen to my spoken (words).’

4 Agreement in the imperfective participial

In the following sections, we will try to formalize the agreement patterns that the imperfective participial construct displays when employed as an attributive adjective, predicative adjective, or adverbial.

4.1 The imperfective participial as an attributive adjective

In non-finite settings, a Hindi imperfective prenominal participial can function as an attributive adjective, as examples (18a) through (18d) illustrate. In this respect, it closely resembles an adjective, or is in the process of becoming one, because it completely adheres to the adjectival declension pattern employed in Hindi. It demonstrates gender and number concordance with the noun it qualifies by displaying forms with three different endings: *-ā*, which demonstrates singular masculine noun concord, as in (18a); *-e*, which demonstrates plural masculine noun concord as in (18b); and *-ī*, which demonstrates both singular and plural feminine noun concord as in (18c) and (18d) respectively.

- (18) a. [rotā huā] laṛkā so-gayā
 [weep.IPFV.M.SG be.PFV.M.SG] boy sleep-go.PFV.M.SG
 ‘The weeping boy fell asleep.’
- b. [rote hue] laṛke so-gaye
 [weep.IPFV.M.PL be.PFV.M.PL] boys sleep-go.PFV.M.PL
 ‘The weeping boys fell asleep.’
- c. [rotī huī] laṛkī so-gayī
 [weep.IPFV.F.SG be.PFV.F.SG] girl sleep-go.PFV.F.SG
 ‘The weeping girl fell asleep.’
- d. [rotī hui] laṛkiyā so-gayī
 [weep.IPFV.F.PL be.PFV.F.PL] girls sleep-go.PFV.F.PL
 ‘The weeping girls fell asleep.’

This remarkable similarity between an attributive imperfective participial and an adjective may also be observed in the ergative declension pattern. In practice, an

imperfective participial in Hindi inflects similarly to any other inflectional adjective, with two distinct endings: *-e* for the oblique masculine singular and masculine plural, as in (19a) and (19b), and *-ī* for the oblique feminine singular and feminine plural, as in (19c) and (19d), respectively.

- (19) a. [rote hue] laṛke-ne pizza khāyā
weep.IPFV.OBL.M.SG be.PFV.OBL.M.SG boy.OBL-ERG pizza.M.SG eat.PFV.M.SG
'The weeping boy ate pizza.'
- b. [rote hue] laṛkō-ne pizza khāyā
weep.IPFV.OBL.M.PL be.PFV.OBL.M.PL boys.OBL-ERG pizza.M.SG eat.PFV.M.SG
'The weeping boys ate pizza.'
- c. [rotī huī] laṛkī-ne pizza khāyā
weep.IPFV.OBL.F.SG be.PFV.OBL.F.SG girl.OBL-ERG pizza.M.SG eat.PFV.M.SG
'The weeping girl ate pizza.'
- d. [rotī huī] laṛkiyō-ne pizza khāyā
weep.IPFV.OBL.F.PL be.PFV.OBL.F.PL girls.OBL-ERG pizza.M.SG eat.PFV.M.SG
'The weeping girls ate pizza.'

Table 5: Gender and number agreement in the IPFV-construct when employed as a modifying adjunct; D = declinable noun ending; ERG = ergative case marker; ND = non declinable noun ending; K = case marker

IPFV-construct		[INFL]	[Head Noun]	[D]/ [ND]	[K]
<i>Direct case features</i>					
[IPFV.M.SG be.PFV.M.SG]		[-ā]	[M.SG]	[-ā]/ [Ø]	[Ø]
[IPFV.M.PL be.PFV.M.PL]		[-e]	[M.PL]	[-e]/ [Ø]	[Ø]
[IPFV.F.SG be.PFV.F.SG]		[-ī]	[F.SG]	[-ī]/ [Ø]	[Ø]
[IPFV.F.PL be.PFV.F.PL]		[-ī]	[F.PL]	[-iyā̃]/ [-ē]	[Ø]
<i>Oblique case features</i>					
[IPFV.M.SG.OBL be.PFV.M.SG.OBL]		[-e]	[M.SG.OBL]	[-e]/ [Ø]	[✓]
[IPFV.M.PL.OBL be.PFV.M.PL.OBL]		[-e]	[M.PL.OBL]	[-ō]/ [-ō]	[✓]
[IPFV.F.SG.OBL be.PFV.F.SG.OBL]		[-ī]	[F.SG.OBL]	[-ī]/ [Ø]	[✓]
[IPFV.F.PL.OBL be.PFV.F.PL.OBL]		[-ī]	[F.PL.OBL]	[-ō]/ [-ō]	[✓]

Table 5 summarizes the gender (M/F) and number (SG/PL) agreement patterns that the IPFV-construct displays when used as an attributive adjunct to the head noun in direct and oblique cases.

4.2 The imperfective participial as a predicative adjective

In the preceding section, we discussed how the imperfective participial might function as an attributive adjective. Now, let us discuss its predicative use. The

examples (20a) through (20d) make it abundantly clear that the attributive imperfective participial construct, *rotā huā* ‘weeping boy’, displays the same gender and number concord when used as a predicative adjective as it does when used as an attributive adjective. As can be seen, the suffixes *-ā*, *-e*, and *-ī* indicate, respectively, masculine singular in (20a), masculine plural in (20b); and feminine singular or feminine plural concord in (20c) and (20d).

- (20) a. *laṛkā* [**rotā** **huā**] *so-gayā*
 boy [weep.IPFV.M.SG be.PFV.M.SG] sleep-go.PFV.M.SG
 ‘The weeping boy fell asleep.’
 b. *laṛke* [**rote** **hue**] *so-gaye*
 boys [weep.IPFV.M.PL be.PFV.M.PL] sleep-go.PFV.M.PL
 ‘The boys fell asleep in tears.’
 c. *laṛkī* [**rotī** **huī**] *so-gayī*
 girl [weep.IPFV.F.SG be.PFV.F.SG] sleep-go.PFV.F.SG
 ‘The girl fell asleep in tears.’
 d. *laṛkiyā* [**rotī** **huī**] *so-gayī*
 girls [weep.IPFV.F.PL be.PFV.F.PL] sleep-go.PFV.F.PL
 ‘The girls fell asleep in tears.’

When the subject is in the ergative case, however, the previously mentioned concord evaporates. As a consequence, the imperfective participial works as an independent clausal adjunct with oblique features rather than as a concordant predicative imperfective participial, as is evident in examples (21a) through (21d):

- (21) a. *laṛke-ne* [**rote** **hue**] *pizza* *khāyā*
 boy.OBL-ERG [weep.IPFV.OBL be.PFV.OBL] pizza.M.SG eat.PFV.M.SG
 ‘The boy ate pizza as he wept.’
 b. *laṛkō-ne* [**rote** **hue**] *pizza* *khāyā*
 boys.OBL-ERG [weep.IPFV.OBL be.PFV.OBL] pizza.M.SG eat.PFV.M.SG
 ‘The boys ate pizza as they wept.’
 c. *laṛkī-ne* [**rote** **hue**] *pizza* *khāyā*
 girl.OBL-ERG [weep.IPFV.OBL be.PFV.OBL] pizza.M.SG eat.PFV.M.SG
 ‘The girl ate pizza as she wept.’
 d. *laṛkiyō-ne* [**rote** **hue**] *pizza* *khāyā*
 girls.OBL-ERG [weep.IPFV.OBL be.PFV.OBL] pizza.M.SG eat.PFV.M.SG
 ‘The girls ate pizza as they wept.’

To illustrate the distinction between these two types of concord, let us examine two seemingly comparable examples with identical syntactic structures: the first has the subject in the nominative case, and the second in the ergative case. Observe that in both cases the IPFV-construct is a component of the predicate. When the

subject is in direct case, the IPFV-construct agrees in number and gender with the subject, as in (22a), even though it is not an adnominal participial. When the subject is in the ergative case, however, the IPFV-construct functions as a free clausal adjunct and exhibits oblique features by default, as in (22b).

- (22) a. laṛkā [rotā huā] pizza khā rahā he
 boy [weep.IPFV.M.SG be.PFV.M.SG] pizza.M.SG eat PROG.M.SG AUX.PRS.SG
 ‘The boy is eating a pizza as he is weeping.’
 b. laṛke-ne [rote hue] pizza khāyā
 boy.OBL-ERG [weep.IPFV.OBL be.PFV.OBL] pizza.M.SG eat.PFV.M.SG
 ‘The boy ate pizza as he wept.’

Table 6 provides a summary of the gender (M/F) and number (SG/PL) agreement patterns that the IPFV-construct exhibits when employed as an adjective in the predicate. The IPFV-construct must demonstrate agreement with the subject, unless the subject is in the ergative case.

Table 6: Gender and number agreement in the IPFV-construct when employed as a predicative adjective; D = declinable noun ending; ERG = ergative case marker; ND = non declinable noun ending; K = case marker

Subject				Predicative Adjective		
<i>Direct case features</i>						
[Noun]	[D]/	[ND]	[K]	[IPFV	PFV]	[INFL]
[M.SG]	[-ā]/	[Ø]	[Ø]	[IPFV.M.SG	be.PFV.M.SG]	[-ā]
[M.PL]	[-e]/	[Ø]	[Ø]	[IPFV.M.PL	be.PFV.M.PL]	[-e]
[F.SG]	[-ī]/	[Ø]	[Ø]	[IPFV.F.SG	be.PFV.F.SG]	[-ī]
[F.PL]	[-iyā]/	[-ē]	[Ø]	[IPFV.F.PL	be.PFV.F.PL]	[-ī]
<i>Oblique case features</i>						
[M.SG.OBL]	[-e]/	[Ø]	[ERG]	[IPFV.OBL	be.PFV.OBL]	[-e]
[M.PL.OBL]	[-ō]/	[-ō]	[ERG]	[IPFV.OBL	be.PFV.OBL]	[-e]
[F.SG.OBL]	[-ī]/	[Ø]	[ERG]	[IPFV.OBL	be.PFV.OBL]	[-e]
[F.PL.OBL]	[-ō]/	[-ō]	[ERG]	[IPFV.OBL	be.PFV.OBL]	[-e]

4.3 The imperfective participial used as an adverbial

Let us now examine those instances in which the Hindi imperfective participial functions as an independent or standalone clausal adjunct, thus displaying oblique features. For the sake of clarity, we might refer to this use of the IPFV-construct as adverbial. This is so called because while in examples (20a) through (20d) the IPFV-construct agrees with the subject, in examples (23a) through (23d) it does not. In fact, regardless of whether the subject is in the direct or the oblique case, the IPFV-

construct demonstrates the same oblique case in both examples (23) and (24), namely: [weep.IPFV.OBL + be.PFV.OBL].

- (23) a. laṛkā [rote hue] so-gayā
 boy [weep.IPFV.OBL be.PFV.OBL] sleep-go.PFV.M.SG
 ‘The boy fell asleep in tears.’
 b. laṛke [rote hue] so-gaye
 boys [weep.IPFV.OBL be.PFV.OBL] sleep-go.PFV.M.PL
 ‘The boys fell asleep in tears.’
 c. laṛkī [rote hue] so-gayī
 girl [weep.IPFV.OBL be.PFV.OBL] sleep-go.PFV.M.PL
 ‘The girl fell asleep in tears.’
 d. laṛkiyā [rote hue] so-gayī
 girls [weep.IPFV.F.PL be.PFV.F.PL] sleep-go.PFV.F.PL
 ‘The girls fell asleep in tears.’
- (24) a. laṛke-ne [rote hue] pizza khāyā
 boy.OBL-ERG [weep.IPFV.OBL be.PFV.OBL] pizza.M.SG eat.PFV.M.SG
 ‘The boy ate pizza as he wept.’
 b. laṛkō-ne [rote hue] pizza khāyā
 boys.OBL-ERG [weep.IPFV.OBL be.PFV.OBL] pizza.M.SG eat.PFV.M.SG
 ‘The boys ate pizza as they wept.’
 c. laṛkī-ne [rote hue] pizza khāyā
 girl-ERG [weep.IPFV.OBL be.PFV.OBL] pizza.M.SG eat.PFV.M.SG
 ‘The girl ate pizza as she wept.’
 d. laṛkiyō-ne [rote hue] pizza khāyā
 girls.OBL-ERG [weep.IPFV.OBL be.PFV.OBL] pizza.M.SG eat.PFV.M.SG
 ‘The girls ate pizza as they wept.’

Notice that the oblique features displayed by the IPFV-construct in examples (21a) through (21d) are the same as those exhibited in cases (24a) through (24d). We refer to the IPFV-construct in instances (21a) through (21d) as a predicative adjective, displaying oblique features, whereas in cases (24a) through (24d) the IPFV-construct can be called an adverbial, even though the demarcation line between adjectives and adverbs is often blurred. As modern syntactic theories are directed towards making syntactic generalizations rather than explaining the data in detail, many such characteristics of oblique features tend to get overlooked. This analysis clearly shows that the oblique features in these two datasets are the result of two different constraints, and that the IPFV-constructs in these datasets are homomorphous.

As a result of the preceding discussion, it can be affirmed that, when used as a free conjunct, the IPFV-construct does not exhibit agreement with the subject, and

only demonstrates the oblique case. This characteristic observed in datasets (23) and (24) is summarized in Table 7.

Table 7: Oblique features displayed by the IPFV-construct when employed as an adverbial; D = declinable noun ending; ERG = ergative case marker; ND = non declinable noun ending; K = case marker

Subject				Adverbial Phrase		
<i>Direct case features</i>						
[Noun]	[D]/	[ND]	[K]	[IPFV	PFV]	[INFL]
[M.SG]	[-ā]/	[Ø]	[Ø]	[IPFV.OBL	be.PFV.OBL]	[-e]
[M.PL]	[-e]/	[Ø]	[Ø]	[IPFV.OBL	be.PFV.OBL]	[-e]
[F.SG]	[-i]/	[Ø]	[Ø]	[IPFV.OBL	be.PFV.OBL]	[-e]
[F.PL]	[-iyā̃]/	[-ē]	[Ø]	[IPFV.OBL	be.PFV.OBL]	[-e]
<i>Oblique case features</i>						
[M.SG.OBL]	[-e]/	[Ø]	[✓]	[IPFV.OBL	be.PFV.OBL]	[-e]
[M.PL.OBL]	[-ō]/	[-ō]	[✓]	[IPFV.OBL	be.PFV.OBL]	[-e]
[F.SG.OBL]	[-ī]/	[Ø]	[✓]	[IPFV.OBL	be.PFV.OBL]	[-e]
[F.PL.OBL]	[-ō]/	[-ō]	[✓]	[IPFV.OBL	be.PFV.OBL]	[-e]

4.4 The imperfective participial as a scrambled adverbial

Hindi allows for an adverbial IPFV-construct to be scrambled, i.e., moved from its usual pre-verbal position to its pre-subject position. If scrambled, the IPFV-construct displays the same oblique features found in the example sets (23) and (24), as is illustrated by the examples in (25) and (26). Clearly, these all show only one agreement pattern: [weep.IPFV.OBL + be.IPFV.OBL]

- (25) a. [rote hue] laṛkā so-gayā
 [weep.IPFV.OBL be.PFV.OBL] boy sleep-go.PFV.M.SG
 ‘The boy fell asleep in tears.’
 b. [rote hue] laṛke so-gaye
 [weep.IPFV.OBL be.PFV.OBL] boys sleep-go.PFV.M.PL
 ‘The boys fell asleep in tears.’
 c. [rote hue] laṛkī so-gayī
 [weep.IPFV.OBL be.PFV.OBL] girl sleep-go.PFV.M.PL
 ‘The girl fell asleep in tears.’
 d. [rote hue] laṛkiyā so-gayī
 [weep.IPFV.F.PL be.PFV.F.PL] girls sleep-go.PFV.F.PL
 ‘The girls fell asleep in tears.’
- (26) a. [rote hue] laṛke-ne pizza khāyā
 [weep.IPFV.OBL be.PFV.OBL] boy.OBL-ERG pizza.M.SG eat.PFV.M.SG
 ‘While weeping, the boy ate pizza.’

- b. [rote hue] laṛkō-ne pizza khāyā
[weep.IPFV.OBL be.PFV.OBL] boys.OBL-ERG pizza.M.SG eat.PFV.M.SG
'While weeping, the boys ate pizza.'
- c. [rote hue] laṛkī-ne pizza khāyā
[weep.IPFV.OBL be.PFV.OBL] girl-ERG pizza.M.SG eat.PFV.M.SG
'While weeping, the girl ate pizza.'
- d. [rote hue] laṛkiyō-ne pizza khāyā
[weep.IPFV.OBL be.PFV.OBL] girls.OBL-ERG pizza.M.SG eat.PFV.M.SG
'While weeping, the girls ate pizza.'

In datasets (25) and (26), the IPFV-construct exhibits oblique features, just as it did in datasets (23) and (24), albeit with a minor difference. The IPFV-construct in (25) exhibits oblique features in its capacity as a free adverbial conjunct, whereas in (26) it does so as the result of dual constraints: first, because as an attributive adjective it must agree with the subject, which is in the ergative case; and second, because of the way it is also functioning as a free adverbial conjunct. Table 8 summarizes the oblique features displayed by the IPFV-construct as a scrambled adverbial.

Table 8: Oblique features displayed by the IPFV-construct when employed as a scrambled adverbial; D = declinable noun ending; ERG = ergative case marker; ND = non declinable noun ending; K = case marker

A scrambled adverbial	Subject
<i>Free conjunct: oblique case</i>	<i>Direct case features</i>
[IPFV PFV] [INFL]	[Noun] [D]/ [ND] [K]
[IPFV.OBL be.PFV.OBL] [-e]	[M.SG] [-ā]/ [Ø] [Ø]
[IPFV.OBL be.PFV.OBL] [-e]	[M.PL] [-e]/ [Ø] [Ø]
[IPFV.OBL be.PFV.OBL] [-e]	[F.SG] [-ī]/ [Ø] [Ø]
[IPFV.OBL be.PFV.OBL] [-e]	[F.PL] [-iyā]/ [-ē] [Ø]
<i>Free conjunct: oblique case</i>	<i>Oblique case features</i>
[IPFV.OBL be.PFV.OBL] [-e]	[M.SG.OBL] [-e]/ [Ø] [✓]
[IPFV.OBL be.PFV.OBL] [-e]	[M.PL.OBL] [-ō]/ [-ō] [✓]
[IPFV.OBL be.PFV.OBL] [-e]	[F.SG.OBL] [-ī]/ [Ø] [✓]
[IPFV.OBL be.PFV.OBL] [-e]	[F.PL.OBL] [-ō]/ [-ō] [✓]

In accordance with the agreement pattern exhibited by the IPFV-construct in different contexts, we have classified its various uses as attributive or predicative adjectives, adverbials, or scrambled adverbials, despite the fact that distinguishing between real adjectives and adverbs can be difficult at times. To illustrate this idea, consider an imaginary yet perfectly acceptable Hindi sentence in (27):

- (27) [ghabṛāte hue]⁽¹⁾ [roti hui]⁽²⁾ mā-ne
[run.IPFV.OBL be.PFV.OBL] [weep.IPFV.F.SG be.PFV.F.OBL] mother-ERG

[**khelte hue**]⁽³⁾ baćće-ko [**pućkārte hue**]⁽⁴⁾
 [be.PFV.OBL be.PFV.OBL] child-ACC [caress.OBL be.PFV.OBL]
 god-mē uṭhā liyā
 lap-in pick up take.PFV.M.SG

‘Panicked, the sobbing mother picked up the playing child in her lap, caressing him.’

The superscripted IPFV-constructs in (27) present a general overview of the phenomenon. Each of them shows oblique features, but for different reasons. The IPFV-construct (1), for example, exhibits oblique characteristic because it functions as a scrambled adverbial, even though its semantic elements relate to the mother rather than the main verb. The IPFV-construct (2), on the other hand, is an indeclinable adjectival adjunct, and shows agreement with the feminine head noun in the ergative case, mother. The IPFV-construct (3) is an adjunct to the accusative-cased head noun “child”. The IPFV-construct (4), being an adverb, demonstrates default oblique case, and contributes semantic elements to the main verb rather than to the subject.

4.5 The imperfective participial and a similar construct

Comparing the IPFV-construct to a similar participial that is typically referred to in the literature on Hindi grammar as a “conjunctive participle” or “absolutive” (which is formed by attaching the suffix *-kar* to the stem of the verb) allows us to determine the type of semantic element that the IPFV-construct adds to a sentence in its capacity as a non-finite verb. In spite of the fact that the IPFV-construct and the conjunctive participle do not share the same aspectual elements in some contexts, as we will see from the examples below, they can be interchangeable in many contexts.

- (28) a. laṛkā [rotā huā/ rokar] so gayā
 boy [weep.IPFV.M.SG be.PFV.M.SG weep.ABS] fall asleep.PFV.M.SG
 ‘The boy fell asleep weeping.’/ ‘Having wept (for some time), the boy
 fell asleep.’
- b. rāmū sigreṭ [pītā huā/ pīkar]
 Ramu cigarette [smoke.IPFV.M.SG be.PFV.M.SG smoke.ABS]
 čalā gayā
 go away.PFV.M.SG
 ‘Ramu went away smoking a cigarette.’/ ‘Having smoked a cigarette,
 Ramu went away.’
- c. rogī [karāhtā huā/ karāhkar] uṭhā
 patient [groan.IPFV.M.SG be.PFV.M.SG groan.ABS] get up.PFV.M.SG
 ‘The patient got up from the bed moaning.’

- d. *ćor* [bhāgtā huā/ bhāgkar] *nikal-gayā*
 burglar [run.IPFV.M.SG be.PFV.M.SG run.ABS] exit-go.PFV.M.SG
 ‘The burglar left running.’/ ‘The burglar ran away.’
- e. *laṛkī* [muskuratī huī/ muskurākar] *bhāg-gayī*
 girl [smile.IPFV.F.SG be.PFV.F.SG smile.ABS] run-go.PFV.F.SG
 ‘The girl ran away smiling.’
- f. *sipāhī-ne* *ćor-ko* *ghūsā* [mārte hue/ mārkar]
 policeman-ERG burglar-ACC punch [hit.IPFV.OBL be.PFV.OBL hit.ABS]
girā *diyā*
 knock down give.PFV.M.SG
 ‘The constable felled the thief by punching him.’/ ‘The constable made the thief fall by punching him.’
- g. *rāmū pān* [ćabāte hue/ ćabākar] *bolā*
 Ramu paan [chew.IPFV.OBL be.PFV.OBL chew.ABS] say.PFV.M.SG
 ‘Ramu said while chewing a paan...’/ ‘Ramu chewed the paan and said...’
- h. *hāthī lāsō-ko* [rōdtā huā/ rōdkar]
 elephant corpses-ACC [trample.IPFV.M.SG be.PFV.M.SG trample.ABS]
nikal gayā
 exit go.PFV.M.SG
 ‘The elephant walked by, trampling the dead bodies.’/ ‘The elephant left after trampling the dead bodies.’
- i. *rāmū* [khāste hue/ khāskar] *bolā*
 Ramu [cough.IPFV.M.SG be.PFV.M.SG cough.ABS] say.PFV.M.SG
 ‘Ramu said coughing.’/ ‘Having coughed, Ramu said.’

As we can see from examples (28a) through (28i), the semantic sphere of the IPFV-construct overlaps to a significant extent with that of the conjunctive participle. As a result, it is possible to use either one in place of the other in a number of different contexts. These two constructions each have the potential to function as subordinate clauses. In addition, vector verbs of any kind are not used within them. On the other hand, they exhibit a comprehensive range of semantic distinctions. In the first place, the action that is reported in an absolutive construction typically takes place prior to the action that is described by the main verb. In contrast, the action that is mentioned in an IPFV-construct may take place at the same time as the action that is described by the main verb. Additionally, the action reported in an absolutive construction is one that is intended to complete the second action. Secondly, the absolutive construct contains a verb which is often volitional while the action reported in an IPFV-construct is not volitional. Thirdly, while the IPFV-construct cannot have a negative marker, the absolute construct can have such a marker.

5 Agreement in the perfective participial

5.1 The perfective participial as an attributive adjective

Similar to the imperfective participial, the perfective participial can be employed adnominally, where it is referred to in the Hindi grammar literature as an attributive adjective. When employed as a prenominal adjunct, it undergoes both number and gender inflections: *-ā* for [M.SG.DIR] as in (29a); *-e* for [M.PL.DIR] as in (29b) and *-ī* for both [F.SG.DIR] and [F.PL.DIR], as in (29c) and (29d), respectively:

- (29) a. kursī-par [beṭhā huā] laṛkā so gayā
 chair-on [sit.PFV.M.SG be.PFV.M.SG] boy sleep go.PFV.M.SG
 ‘The boy fell asleep while seated in a chair.’
 b. kursī-par [beṭhe hue] laṛke so gaye
 chair-on [sit.PFV.M.PL be.PFV.M.PL] boys sleep go.PFV.M.PL
 ‘The boys fell asleep while seated in chairs.’
 c. kursī par [beṭhī huī] laṛkī so gayī
 chair on [sit.PFV.F.SG be.PFV.F.SG] girl sleep go.PFV.F.SG
 ‘The girl fell asleep while seated in a chair.’
 d. kursī par [beṭhī huī] laṛkiyā so gayī
 chair on [sit.PFV.F.SG be.PFV.F.SG] girl.F.PL sleep go.PFV.M.SG
 ‘The girls fell asleep while seated in chairs.’

These participials, like declinable adjectives, show agreement with the head noun in the following manner when the head noun is in the oblique case: *-e* [M.SG.OBL (30a)/ M.PL.OBL (30b)]; *-ī* [F.SG.OBL (30c)/ F.PL.OBL (30d)]:

- (30) a. kursī-par [beṭhe hue] laṛke-ne pizzakhāyā
 chair-on [sit.PFV.M.SG.OBL be.PFV.M.SG.OBL] boy.OBL-ERG pizza eat-PFV.M.SG
 ‘The boy ate pizza while seated in a chair.’
 b. kursī-par [beṭhe hue] laṛkō-ne pizza khāyā
 chair-on [sit.PFV.M.PL be.PFV.M.PL] boys.OBL-ERG pizza eat-PFV.M.SG
 ‘The boys ate pizza while seated in chairs.’
 c. kursī par [beṭhī huī] laṛkī-ne pizza khāyā
 chair on [sit.PFV.F.SG be.PFV.F.SG] girl-ERG pizza eat-PFV.M.SG
 ‘The girl ate pizza while seated in a chair.’
 d. kursiyō-par [beṭhī huī] laṛkiyō-ne pizza khāyā
 chairs-on [sit.PFV.F.SG be.PFV.F.SG] girl-F.PL-ERG pizza eat-PFV.M.SG
 ‘The girls ate pizza while seated in chairs.’

Table 9 offers an easy-to-read summary of the agreement pattern that can be seen represented by the cases (29a) through (29d), and (30a) through (30d).

Table 9: Gender and number agreement in the PFV-construct when employed as a modifying adjunct; D = declinable noun ending; ERG = ergative case marker; ND = non declinable noun ending; K = case marker

PFV-construct as an attributive adjective						
PFV-construct		[INFL]	Head noun	[D]	[ND]	[K]
<i>Direct case features</i>						
[PFV.M.SG	be.PFV.M.SG]	[-ā]	[M.SG]	[-ā]	[Ø]	[Ø]
[PFV.M.PL	be.PFV.M.PL]	[-e]	[M.PL]	[-e]	[Ø]	[Ø]
[PFV.F.SG	be.PFV.F.SG]	[-ī]	[F.SG]	[-ī]	[Ø]	[Ø]
[PFV.F.PL	be.PFV.F.PL]	[-ī]	[F.PL]	[-iyā]	[-ē]	[Ø]
<i>Oblique case features</i>						
[PFV.M.SG.OBL	be.PFV.M.SG.OBL]	[-e]	[M.SG.OBL]	[-e]	[Ø]	[✓]
[PFV.M.PL.OBL	be.PFV.M.PL.OBL]	[-e]	[M.PL.OBL]	[-ō]	[-ō]	[✓]
[PFV.F.SG.OBL	be.PFV.F.SG.OBL]	[-ī]	[F.SG.OBL]	[-ī]	[Ø]	[✓]
[PFV.F.PL.OBL	be.PFV.F.PL.OBL]	[-ī]	[F.PL.OBL]	[-ō]	[-ō]	[✓]

5.2 The perfective participial as a predicative adjective

As demonstrated by the examples below, the declinable perfective participial can also be employed predicatively. As the predicate must agree with the subject, so too must the perfective participial when it is incorporated into the predicate. Thus, the PFV-construct displays the following endings: -ā [M.SG.OBL (31a)], -e [M.PL.OBL (31b)]; -ī [F.SG.OBL (31c)/ F.PL.OBL (31d)]:

- (31) a. laṛkā kursī-par [beṭhā huā] so gayā
 boy chair-on [sit.PFV.M.SG be.PFV.M.SG] asleep go-PFV.M.SG
 ‘The boy fell asleep seated in a chair.’
 b. laṛke kursī-par [beṭhe hue] so gaye
 boys chair-on [sit.PFV.M.PL be.PFV.M.PL] asleep go-PFV.M.PL
 ‘The boys fell asleep seated in chairs.’
 c. laṛkī kursī-par [beṭhī hui] so gayī
 girl chair-on [sit.PFV.F.SG be.PFV.F.SG] asleep go-PFV.F.SG
 ‘The girl fell asleep seated in a chair.’
 d. laṛkiyā kursī-par [beṭhī hui] so gayī
 girls chair-on [sit.PFV.M.SG be.PFV.M.SG] asleep go-PFV.F.PL
 ‘The girls fell asleep seated in chairs.’

Similar to the IPFV-construct, a PFV-construct applied as a predicate displays gender and number agreement with the subject if the subject is in the direct case. If the

subject is in the ergative case, the PFV-construct functions as a free conjunct with oblique futures, similar to the IPFV-construct in the example set (21) in Section 4.2. Table 10 highlights the characteristics of this agreement.

Table 10: Gender and number agreement in the PFV-construct when employed as a predicative adjective; D = declinable noun ending; ERG = ergative case marker; ND = non declinable noun ending; K = case marker

Subject				PFV-construct as a predicative adjective		
<i>Direct case features</i>				<i>Direct case features</i>		
[Noun]	[D]/	[ND]	[K]	[PFV	PFV]	[INFL]
[M.SG]	[-ā]/	[Ø]	[Ø]	[PFV.M.SG	be.PFV.M.SG]	[-ā]
[M.PL]	[-e]/	[Ø]	[Ø]	[PFV.M.PL	be.PFV.M.PL]	[-e]
[F.SG]	[-ī]/	[Ø]	[Ø]	[PFV.F.SG	be.PFV.F.SG]	[-ī]
[F.PL]	[-iyā̃]/	[-ē]	[Ø]	[PFV.F.PL	be.PFV.F.PL]	[-ī]
<i>Oblique case features</i>				<i>Oblique case features</i>		
[M.SG.OBL]	[-e]/	[Ø]	[ERG]	[PFV.OBL	be.PFV.OBL]	[-e]
[M.PL.OBL]	[-ō]/	[-ō]	[ERG]	[PFV.OBL	be.PFV.OBL]	[-e]
[F.SG.OBL]	[-ī]/	[Ø]	[ERG]	[PFV.OBL	be.PFV.OBL]	[-e]
[F.PL.OBL]	[-ō]/	[-ō]	[ERG]	[PFV.OBL	be.PFV.OBL]	[-e]

5.3 The oblique perfective participial as an adverbial

A declinable perfective participial can be found in the oblique case, which, despite being semantically identical to an adjective, can be regarded as an adverbial since, like an adverbial, it displays oblique characteristics due to inherent case. (Subbarao 2012) Note that this is distinct from an indeclinable adverb. As demonstrated by examples (32a) through (32d), a single oblique form (sit.PFV.OBL be.PFV.OBL) is used, rather than different inflected forms based on the subject's gender and number.

- (32) a. laṛkā kursī-par [beṭhe hue] so gayā
 boy chair-on [sit.PFV.OBL be.PFV.OBL] sleep go-PFV.M.SG
 'The boy fell asleep seated in a chair.'
- b. laṛke kursī-par [beṭhe hue] so gaye
 boys chair-on [sit.PFV.OBL be.PFV.OBL] sleep go-PFV.M.PL
 'The boys fell asleep seated in a chair.'
- c. laṛkī kursī-par [beṭhe hue] so gayī
 girl chair-on [sit.PFV.OBL be.PFV.OBL] sleep go-PFV.F.SG
 'The girl fell asleep seated in a chair.'
- d. laṛkiyā̃ kursī-par [beṭhe hue] so gayī̃
 girls chair-on [sit.PFV.OBL be.PFV.OBL] sleep go-PFV.F.PL
 'The girls fell asleep seated in a chair.'

A close comparison between the datasets (31) and (32) reveals that, despite being semantically similar, they exhibit different agreement patterns. In fact, the examples in (31) demonstrate agreement with the subject whereas those in (32) exhibit oblique features due to inherent case. We call the former predicative, and the latter adverbial. Table 11 provides a summary of the oblique features seen in (32).

Table 11: Oblique features displayed by an IPFV-construct when employed as an adverbial; D=declinable noun ending; ERG=ergative case marker; ND=non declinable noun ending; K=case marker

Subject				PFV-construct as an adverbial		
<i>Direct case features</i>				<i>Free conjunct: oblique case</i>		
[Noun]	[D]/	[ND]	[K]	[PFV	PFV]	[INFL]
[M.SG]	[-ā]/	[Ø]	[Ø]	[PFV.OBL	be.PFV.OBL]	[-e]
[M.PL]	[-e]/	[Ø]	[Ø]	[PFV.OBL	be.PFV.OBL]	[-e]
[F.SG]	[-ī]/	[Ø]	[Ø]	[PFV.OBL	be.PFV.OBL]	[-e]
[F.PL]	[-iyā]/	[-ē]	[Ø]	[PFV.OBL	be.PFV.OBL]	[-e]
<i>Oblique case features</i>				<i>Free conjunct: oblique case</i>		
[M.SG.OBL]	[-e]/	[Ø]	[✓]	[PFV.OBL	be.PFV.OBL]	[-e]
[M.PL.OBL]	[-ō]/	[-ō]	[✓]	[PFV.OBL	be.PFV.OBL]	[-e]
[F.SG.OBL]	[-ī]/	[Ø]	[✓]	[PFV.OBL	be.PFV.OBL]	[-e]
[F.PL.OBL]	[-ō]/	[-ō]	[✓]	[PFV.OBL	be.PFV.OBL]	[-e]

5.4 The oblique perfective participial as a scrambled adverbial

The cases in (33) display the same oblique characteristics as the examples in (32) above. In these examples, however, the PFV-construct is a scrambled adverbial that comes before the subject. As was the situation in (32), examples (33a) through (33d) share the same oblique features: [sit.PFV.OBL, be.PFV.OBL]

- (33) a. kursī-par [bēthe hue] laṛkā so gayā
 chair-on [sit.PFV.OBL be.PFV.OBL] boy sleep go-PFV.M.SG
 ‘The boy fell asleep seated in a chair.’
 b. kursī-par [bēthe hue] laṛke so gaye
 chair-on [sit.PFV.OBL be.PFV.OBL] boys sleep go-PFV.M.PL
 ‘The boys fell asleep seated in chairs.’
 c. kursī-par [bēthe hue] laṛkī so gayī
 chair-on [sit.PFV.OBL be.PFV.OBL] girl sleep go-PFV.F.SG
 ‘The girl fell asleep seated in a chair.’

- d. kursī-par [beṭhe hue] laṛkiyā̃ so gayī
 chair-on [sit.PFV.OBL be.PFV.OBL] girls sleep go-PFV.F.PL
 ‘The girls fell asleep while seated in chairs.’
 ‘The girls fell asleep seated in chairs.’

As with the IPFV-construct, placing the PFV-construct with oblique features before the subject results in a scrambled adverb. Table 12 summarizes the oblique features displayed by the PFV-construct as a scrambled adverbial:

Table 12: Oblique features displayed by the PFV-construct when employed as a scrambled adverbial; D = declinable noun ending; ERG = ergative case marker; ND = non declinable noun ending; K = case marker

PFV-construct as a scrambled adverbial			Subject			
Free conjunct: oblique case			Direct case features			
[PFV	PFV]	[INFL]	[Noun	[D]/	[ND]	[K]
[PFV.OBL	be.PFV.OBL]	[-e]	[M.SG]	[-ā]/	[Ø]	[Ø]
[PFV.OBL	be.PFV.OBL]	[-e]	[M.PL]	[-e]/	[Ø]	[Ø]
[PFV.OBL	be.PFV.OBL]	[-e]	[F.SG]	[-i]/	[Ø]	[Ø]
[PFV.OBL	be.PFV.OBL]	[-e]	[F.PL]	[-iyā̃]/	[-ē]	[Ø]
Free conjunct: oblique case			Oblique case features			
[PFV.OBL	be.PFV.OBL]	[-e]	[M.SG.OBL]	[-e]/	[Ø]	[✓]
[PFV.OBL	be.PFV.OBL]	[-e]	[M.PL.OBL]	[-ō]/	[-ō]	[✓]
[PFV.OBL	be.PFV.OBL]	[-e]	[F.SG.OBL]	[-i]/	[Ø]	[✓]
[PFV.OBL	be.PFV.OBL]	[-e]	[F.PL.OBL]	[-ō]/	[-ō]	[✓]

6 Some complex issues

6.1 Semantic ambiguity

Because of their structure and their position within a sentence, the IPFV-construct and PFV-construct frequently give rise to semantic ambiguity. This semantic ambiguity is caused by the fact that the IPFV-construct and PFV-construct exhibit identical oblique characteristics for two distinct syntactic functions, as has been noted in previous sections (see example sets (21) and (24) for the IPFV-construct). In fact, their oblique features may derive either from their use as an attributive adjunct to a case-marked head noun or from their use as an adverbial which carries an inherent case by default. For instance, in (34a), the IPFV-construct *rote hue* ‘weeping’, is placed before the main verb, like an adverbial, and therefore does not lead to any ambiguity. Nor does it give rise to any ambiguity when the IPFV-construct is fronted according to the scrambling patterns in Hindi, as in (34b). However, in (34c), the

IPFV-construct *rote hue* ‘weeping’ is placed before the direct object, where it may be considered as an attributive adjunct to the head noun “child” (thus meaning “weeping child”), or it may also be interpreted as an adverbial since it is part of the predicate, albeit misplaced. Thus (34c) has two possible interpretations: ‘The mother picked up the weeping child’ (i.e., the IPFV-construct modifies the object, the child) or ‘The mother was weeping when she picked him up’.

- (34) a. *mā-ne baćće-ko [rote hue] uṭhā liyā*
 mother-ERG child-ACC [weep.IPFV.OBL be.PFV.OBL] lift up take.PFV.M.SG
 ‘The mother picked up the child as she was sobbing.’
- b. *[rote hue] mā-ne baćće-ko uṭhā liyā*
 [weep.IPFV.OBL be.PFV.OBL] mother-ERG child-ACC lift up take.PFV.M.SG
 ‘The mother picked up the child as she was sobbing.’
- c. *mā-ne [rote hue] baćće-ko uṭhā liyā*
 mother-ERG [weep.IPFV.OBL be.PFV.OBL] child-ACC lift up take.PFV.M.SG
 1. ‘The mother picked up the weeping child.’
 2. ‘The mother picked up the child as she was sobbing.’

The same holds true for the PFV-constructs whose position within a sentence generates semantic ambiguity. As illustrated by example (35a), the PFV-construct *lete hue* ‘lying’ positioned between the object and the main verb indicates that the woman was lying on the bed while breast-feeding the infant. Similarly, in (35b), the IPFV-construct *lete hue* ‘lying’ is just fronted, and therefore does not generate ambiguity. Due to its position before the grammatical object baby in (35c), however, it may be interpreted as indicating the baby was lying on the bed while his mother breast-fed him; or it could also suggest that the mother was lying on the bed while breast-feeding her child.

- (35) a. *mā-ne baćće-ko [lete hue] dūdh-pilāyā*
 mother-ERG child-ACC [lie.PFV.OBL be.PFV.OBL] breast-feed.CAUS.PFV.M.SG
 ‘The mother breast-fed the baby as she was lying (on the bed).’
- b. *[lete hue] mā-ne baćće-ko dūdh pilāyā*
 [lie.PFV.OBL be.PFV.OBL] mother-ERG child-ACC breast-feed.CAUS.PFV.M.SG
 ‘Lying (on the bed), the mother breast-fed the baby.’
- c. *mā-ne [lete hue] baćće-ko dūdh pilāyā*
 mother-ERG [lie.PFV.OBL be.PFV.OBL] child-ACC breast-feed.CAUS.PFV.M.SG
 1. ‘The mother breast-fed the baby who was lying (on the bed).’
 2. ‘The mother breast-fed the baby as she was lying (on the bed).’

This type of semantic ambiguity is primarily caused by the position of an IPFV-construct or PFV-construct within a sentence, as we have observed. These constructs only generate ambiguity before a case-marked head noun that serves a function

different than that of a grammatical subject. In certain circumstances, however, world knowledge may eliminate the ambiguity attested in (34c) and (35c), while interfering with the standard interpretation of (36a) and (36b):

- (36) a. *pulis-ne ćor-ko ćorī [karte hue] pakṛā*
 police-ERG thief-ACC theft [do.IPFV.OBL be.PFV.OBL] arrest.PFV.M.SG
 1. ‘The police arrested the thief while they were stealing.’
 2. ‘The police arrested the thief who was stealing.’
- b. *[?ćorī karte hue] pulis-ne ćor-ko pakṛā*
 [theft do.IPFV.OBL be.PFV.OBL] police-ERG thief.ACC arrest.PFV.M.SG
 ‘The police arrested the thief as they were stealing.’
- c. *pulis-ne ćorī [karte hue] ćor-ko pakṛā*
 police-ERG theft [do.IPFV.OBL be.PFV.OBL] thief.ACC arrest.PFV.M.SG
 1. ‘The police arrested the thief as he was stealing.’
 2. ‘The police arrested the thief as they were stealing.’

In actuality, in (36a), world knowledge disproves the first interpretation obtained from the pre-verbal position of the IPFV-construct and validates the second interpretation. Example (36b) provides only one interpretation, which is inconsistent with our knowledge of the world. In example (36c), however, the first interpretation is fine whereas the second interpretation is precluded by our knowledge of the world. Note that this was not the case in examples (34c) and (35c).

6.2 Optionality in participial agreement

Numerous scholarly publications have pointed to the widespread optionality of participial agreement rules in Hindi (Kellogg 1893; Greaves 1921; Kachru 2006, amongst others). Importantly, a detailed study conducted by Bhattacharya (2021) reveals some astounding data regarding the extent to which participial concord can vary among educated Hindi speakers. Bhattacharya puts forward a minimalist analysis of the number and gender variation in agreement—called “microvariation theory”—that is designed to account for all the variations seen in Hindi participial agreement. To highlight the different levels of variation in agreement, he uses the following example, previously discussed by Kachru (2006: 228 [adapted to our diacritic and glossing system]):

- (37) *laṛkī maze mẽ [gāṭī huī / gāte hue]*
 girl-F.SG fun in [sing.IPFV.F.SG be.PFV.F.SG sing.IPFV.OBL be.OBL
jhūlā jhūl rahī he
 swing swing PROG.F.SG be.PRS.3SG
 ‘The girl is swinging on the swing, singing with enjoyment.’

This well-documented variation in adverbial accord stems from the fact that Hindi exhibits both predicative and adverbial uses of participials, as argued in the preceding sections. In fact, the first of these options shows agreement between the subject and the participial construct, which is situated in the predicate. The second option, in contrast, is a free clausal adjunct in the oblique case, and thus does not show agreement with the subject. If we change the case of the subject to the ergative, however, the first choice, which is the conforming participial construct, is no longer grammatical:

- (38) laṛkī-ne maze-mē [**gāṭī* *huī* / *gāte* *hue*]
 girl-ERG fun-in sing.IPFV.F.SG be.PFV.F.SG sing.IPFV.OBL be.PFV.OBL
 apnā kām kiyā
 her work.M.SG do.PFV.M.SG
 ‘The girl did her work, singing with enjoyment.’

To conduct his survey, Bhattacharya consulted Table 13’s list of variants:

Table 13: Adverbial agreement

‘The girl is swinging in the swing while singing in gay abandon.’							
a. laṛkī	maze-mē	gāte	hue	jhūlā	jhūl	rahi	he
girl.SG	fun-in	sing.IPFV.OBL	be.PFV.OBL	swing	swing	PROG.F.SG	AUX.PRS.3SG
b. laṛkī	maze-mē	gāṭī	huī	jhūlā	jhūl	rahi	he
girl.SG	fun-in	sing.IPFV.F	be.PFV.F.SG	swing	swing	PROG.F.SG	AUX.PRS.3SG
c. laṛkiyā	maze-mē	gāte	hue	jhūlā	jhūl	rahi	he
girl.PL	fun-in	sing.IPFV.OBL	be.PFV.OBL	swing	swing	PROG.F.SG	AUX.PRS.3SG
d. laṛkiyā	maze-mē	gāṭī	huī	jhūlā	jhūl	rahi	he
girl.PL	fun-in	sing.IPFV.F	be.PFV.PL.OBL	swing	swing	PROG.F.SG	AUX.PRS.3SG
e. laṛkiyā	maze-mē	gāṭī	huī	jhūlā	jhūl	rahi	he
girl.PL	fun-in	sing.IPFV.F	be.PFV.F.PL	swing	swing	PROG.F.PL	AUX.PRS.3SG
f. laṛkiyā	maze-mē	gāṭī	hue	jhūlā	jhūl	rahi	he
girl.PL	fun-in	sing.IPFV.F	be.PFV.OBL	swing	swing	PROG.F.SG	AUX.PRS.3SG
g. laṛkiyā	maze-mē	gāṭī	hue	jhūlā	jhūl	rahi	he
girl.PL	fun-in	sing.IPFV.F	be.PFV.OBL	swing	swing	PROG.F.PL	AUX.PRS.3SG
h. laṛkiyā	maze-mē	gāṭī	huī(ī)	jhūlā	jhūl	rahi(ī)	hē
girl.PL	fun-in	sing.IPFV.F	be.PFV.F.SG(PL)	swing	swing	PROG.F.SG(PL)	AUX.PRS.3PL

Bhattacharya’s (2021: 95) survey aims to determine the range of acceptability of various types of gender and number accord in participial adverbials. As his objective in discussing these variants is to determine the extent to which adverbial

agreement patterns may vary, perhaps the list of variant cases has been purposefully kept incomplete. It is unclear, however, why agreement at the finite verbal level is taken into consideration. Also, example (h) in Table 13 is not presented with all the separate alternative forms. If we want to look at all the possible variants, there is one more scenario in which accurate agreement shows up and which Bhattacharya has left aside, perhaps deliberately: an IPFV-construct employed as a free adjunct with a plural subject, as in (39l) below. Taking into account these extra instances, Bhattacharya's list of potential variations would increase to twelve. In (39), we provide a summary of the twelve possible instances of agreement attested in finite and non-finite verbal contexts in Hindi, with ungrammatical variants crossed out:

(39) SUBJECT	Non-finite verbal accord				Finite verbal accord			Sentence
	IPFV-construct				Periphrastic Progressive			Accord
a. F.SG	IPFV.OBL	be.PFV.OBL	✓	PROG.F.SG	✓	AUX.PRS.3SG	✓	✓
b. F.SG	IPFV.F.SG	be.PFV.F.SG	✓	PROG.F.SG	✓	AUX.PRS.3SG	✓	✓
c. F.PL	IPFV.OBL	be.PFV.OBL	✓	PROG.F.SG	✓	AUX.PRS.3SG	*	*
d. F.PL	IPFV.F.SG	be.PFV.F.PL	*	PROG.F.SG	✓	AUX.PRS.3SG	*	*
e. F.PL	IPFV.F.SG	be.PFV.F.PL	*	PROG.F.PL	*	AUX.PRS.3SG	*	*
f. F.PL	IPFV.F.SG	Be.PFV.OBL	*	PROG.F.SG	✓	AUX.PRS.3SG	*	*
g. F.PL	IPFV.F.SG	Be.PFV.OBL	*	PROG.F.PL	*	AUX.PRS.3SG	*	*
h. F.PL	IPFV.F.SG	Be.PFV.F.SG	✓	PROG.F.SG	✓	AUX.PRS.3PL	✓	✓
i. F.PL	IPFV.F.SG	Be.PFV.F.SG	✓	PROG.F.PL	*	AUX.PRS.3PL	*	*
j. F.PL	IPFV.F.SG	Be.PFV.F.PL	*	PROG.F.SG	✓	AUX.PRS.3PL	*	*
k. F.PL	IPFV.F.SG	Be.PFV.F.PL	*	PROG.F.PL	*	AUX.PRS.3PL	*	*
l. F.PL	IPFV.OBL	Be.PFV.OBL	✓	PROG.F.PL	*	AUX.PRS.3PL	✓	*

Only (39a), (39b), and (39h), according to standard Hindi grammar, exhibit correct agreement patterns. Every other occurrence contains one, two, or even three gender and number inconsistencies. In accordance with Hindi grammar rules, the IPFV-construct in (39a) as a free clausal adjunct displays oblique features rather than gender and number agreement with the subject. Additionally, the paraphrastic construction matches its subject in terms of number and gender. In contrast, the IPFV-construct in (39b) indicates agreement with the subject. In fact, in (39b), both the IPFV-construct and the periphrastic progressive are feminine and singular. In (39h), the IPFV-construct is a part of the predicate that must demonstrate gender and number agreement, and the auxiliary displays correct gender (F) and number (PL) agreement.

Lacking subject agreement, the auxiliary verbs in examples (39c), (39d), (39e), (39f), and (39g) violate Hindi grammar rules. This is likely due to the misconception speakers have about nasalization: many Hindi speakers incorrectly believe

there is no need to nasalize the auxiliary when the non-finite perfective participle contains nasalizing features.

For these instances of anomalies in grammatical concord in the finite verbal context, pending further empirical research, we can hypothesize the influence of non-ergative Eastern Hindi dialects and other Eastern languages, such as Bengali, on the standard variety of Hindi. A lack of complete and grammatically acceptable agreement between the subject and two elements of the periphrastic predicate in (39c), (39d), (39e), (39g), (39i), and (39k) could be interpreted as evidence of this tendency. In non-finite contexts, the data indicate that the first element, the imperfective participial, which displays full gender agreement with the subject, does not exhibit any anomalies. The complexity of the second element necessitates further investigation beyond the scope of this paper. A large number of native Hindi speakers are proficient in spoken Hindi or its various dialects, but not in the written form of standard Hindi taught in schools and on which the majority of grammar books are based. This causes both omission and commission errors in native speakers' grammatical judgments. In finite verbal contexts, the plural number cannot be displayed on the participle, but only on the auxiliary. Despite this rule, speakers typically employ plural forms in both parts of the predicate, as evidenced by (39i) and (39k). In contrast, some speakers tend to add plural markers to non-finite participials while leaving the auxiliary verb unmarked for plural, as in cases (39c) and (39d). In (39d), (39e), (39j), and (39k). The ungrammatical presence of nasalization in the non-finite perfective participial of the verb *ho* 'be' can be attributed to morphological homonymy. Due to an intrinsic property of the Hindi language, speakers frequently confuse two forms belonging to two distinct contexts: when used as a finite verb, the perfective participial of auxiliary *ho* 'be' must display nasalization to agree with a plural subject, but it does not need to do so when employed in non-finite verbal contexts.

The microvariation theory of Bhattacharya appears to adequately account for the variations observed in participial agreement. Nonetheless, it raises questions regarding the abstract concept of grammatical competence: Is grammatical competence a well-defined, fixed, and stable concept, or is it vague, variable, and fluid?

7 Conclusion

We have argued that in both finite and non-finite verbal contexts, Hindi participials reflect grammatical aspects rather than tenses. Thus, it is inappropriate to classify them using terms such as 'present tense' and 'past tense', which although familiar, are confusing and unscientific. We have shown that both the IPFV-construct and the PFV-construct can be used as an attributive adjective, a predicative adjective, an adverbial, a scrambled adverbial, or an adjectivized verbal noun in non-finite

contexts, confirming earlier observations by Hindi grammarians. In non-finite contexts, both constructs are reduced relative clauses: the IPFV-construct refers to a full clause that denotes a progressive rather than a habitual aspect, while the PFV-construct is the shortened form of a relative clause that denotes a perfective aspect. It has been asserted that when the imperfective and perfective participials are employed to form the IPFV-construct and the PFV-construct, they are followed by *huā*, the perfective participial of the verb *ho* 'be', which is an integral part of these constructs. In certain contexts, *huā* is frequently omitted, but not always. We argue that, in order to provide a comprehensive list of the circumstances in which *huā* can be omitted, an in-depth examination of the various phases of lexicalization is necessary. We have proved, contrary to popular perception, that an imperfective participial indicates an indefinite aspect rather than a habitual aspect. We have also illustrated the semantic ambiguity caused by the position of the IPFV-construct and PFV-construct within a sentence. In addition, it has been argued that the widely reported variation in participial agreement, at least in the spoken variety of Hindi, is the result of both internal and external linguistic factors: internal factors such as morphological homonymy, and external factors such as an influence on the standard variety of Hindi from non-ergative languages, for example the Eastern dialects of Hindi, and other Eastern languages, including Bengali.

Transliteration

The transliteration of linguistic data is essentially based on the ISO-15919 system (https://en.wikipedia.org/wiki/ISO_15919), with the addition of a few extra characters (e.g., ε, ɔ and é in place of 'ai', 'au' and 'c', respectively).

Abbreviations

1 = first person; 2 = second person; 3 = third person; ACC = accusative; AUX = auxiliary; CTRF = counterfactual; DAT = dative; EMP = emphatic; ERG = ergative; F = feminine; FUT = future; GEN = genitive; HON = honorific; IMP = imperative; IND = indicative; INTR = intransitive; IPFV = imperfective; M = masculine; OBJ = object; OBL = oblique; PFV = perfective; PL = plural; PROG = progressive; PRS = present; PRSM = presumptive; PST = past; REL = relative; SBJV = subjunctive; SG = singular; TR = transitive; VP = verb phrase

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