Chapter 5

Grammaticalization of participles and gerunds in Indo-Aryan: Preterite, future, infinitive

Annie Montaut

Inalco (Paris)

The development of the Sanskrit passive past participle and gerund or passive verbal adjective of obligation in Indo-Aryan are up to a certain point parallel and resulted respectively in an ergative alignment in past sentences in Western languages and a nominative realignment in both future and past in Eastern languages. Only Eastern languages grammaticalized the old endings into the specific temporal markers -*l*- for past and -*b*- for future, while throughout the IA area the obligative passive verbal adjective also evolved into an infinitive. The aim of the paper is to account for the various grammaticalization paths of these forms in a unified manner, taking into account the whole range of other competing constructions in the various IA languages considered, as well as comparable instances of grammaticalization in Latin and Romance languages. Grammaticalization is understood here in the meaning of less grammatical to more grammatical as in Hopper & Traugott (2003) with a special attention to the shift in syntactic construction as in Benveniste (1966[1952]) and Kuryłowicz (1965).

1 Introduction

The ergative realignment of the Sanskrit passive past participle construction has been extensively studied in many Western Indo-Aryan languages, and is often taken to be a unique development in the area and the wider family of Indo-European. However, its nominative realignment in Eastern languages has raised far less interest. Moreover, the parallel development of the passive future verbal adjective of obligation into a future marker, and the infinitive, is still unstudied.

The aim of the paper, in continuation of Montaut (2016), is to account for the various grammaticalization paths of these forms in a unified manner. The words which developed in specific TAM markers with specific constructions are not lexical items but verbal adjectives, and grammaticalization is understood here in the meaning of less grammatical to more grammatical as in Hopper & Traugott (2003) with a special attention to the shift in syntactic construction as in Benveniste (1966[1952]) and Kuryłowicz (1965). To understand why different paths can lead to different outcomes in different languages, the whole range of other competing constructions is considered. The paper also includes a comparison with similar instances of grammaticalization in Latin and Romance languages. Indo-Aryan (IA) languages (apart from Dardic languages) are now conventionally classified into two main groups (Cardona & Suthar 2003), genetically associated respectively to the Western Sauraseni Prakrits in Middle Indo-Aryan (from which derive Gujarati, Hindi/Urdu, Punjabi, Rajasthani, Braj, among others), and to the Eastern Magadhean Prakrits (from which Bengali, Oriya, Assamese, and Maithili derive, among others). I first analyse the different developments of the past verbal adjective and past passive participle, since the ergative development is limited to the first group, at the same time questioning theories of both passive and possessive origin of the perfect (§2). In §3, I present the parallel grammaticalization of the passive obligation participle (or gerund), and its different outcomes in Eastern and in Western Indo-Aryan, since the anomalous situation of Marathi invites to question the nature of this gerund. This question, along with the discussion of the gerund's grammaticalization as a verbal noun, is the subject of §4. This paper also attempts to clarify areal relations and the conditions for a given path of grammaticalization/reanalysis to actualize here and not there, while at the same time inquiring into the reasons for re-alignments.

2 The grammaticalization of the passive participle into finite past and "ergative alignments" in Indo-Aryan

As is well-known since Kellogg (1972[1875]) and Grierson (1903–1928), what is today called the ergative construction or alignment in Indo-Aryan, and what was in the 19th and early 20th centuries described as 'a kind of passive construction', stems from a particular type of the Sanskrit nominal sentence, generalized in the classical language[1]. The past passive participle (henceforth glossed PPP) or verbal adjective ending in *-(i)ta* was used as a predicate, replacing the finite Vedic synthetic past tense forms. In this predicative use, the PPP agreed in gender and number with the patient, the agent appearing in the instrumental. As the pred-

icative uses of PPP increased in frequency, it grammaticalized into the standard expression of past (cf. Bybee 2003 for the role of use frequency). The original instrumental case marking of the agent was later replaced by a postpositional marker, the so-called ergative case marker in Western IA languages, while the *-ita* (*>ia*) form acquired modern gender/number endings. The following example from Classical Sanskrit (1) is a historical antecedent of the modern ergative construction in Hindi (2a), in contrast to the present or future nominative sentences (2b), a construction extensively studied since the 1980s for its syntactic as well as pragmatic properties (for Hindi cf. e.g. Kachru 1987; Montaut 2004; Davison 2002). In the ergative construction, the agent has most of the subject properties (particularly in control constructions) and the patient has only few discourse-related 'subject properties'.

(1)   Sanskrit
      mayā / mama   tat   kṛtam
      1SG.INS / 1SG.GEN DEM NOM.N.SG do.PPP.NOM.N.SG
      'I did/have done that. (lit. 'by me/ of me this done')'[2]

(2)   a. Hindi
          maĩ.ne yah   / apnā kām   kiyā
          1SG.ERG DEM.M.SG   REFL work.M.SG do.M.SG
          'I did this/my work.'

      b. Hindi
          maĩ. yah   / apnā kām   kar.ū̃.g.ī
          1SG   DEM.M.SG   REFL work.M.SG do.1SG.FUT.F
          'I will do this/my work.'

2.1 Early New Indo-Aryan (NIA) data: alignment shift and acquisition of temporal meaning

Equally well-known is the fact that this TAM-based pattern of split ergativity (found in definite past and derived tenses such as present perfect, pluperfect and all compound forms involving the past participle) is now restricted to the Western part of IA. What has been commented on less is the fact that it was prevailing

---

[1]In Late Classical Sanskrit, for instance in the tales of the Vampire (*Vetāla*), participial forms represent about 95% of past sentences (Bloch 1906: 60).

[2]The genitive marking of the agent is restricted to pronouns, instrumental being by far the most usual marker elsewhere.

throughout Indo-Aryan up to the middle stages of NIA (14th–16th century, depending on the regional variety). Here are early examples of the extension of the construction, both from Western and Eastern IA, right from the last stage of Old Indo-Aryan or Prakrit (PRK); in (3) from Ashoka's first edict which displays both Western (3a: Girnar) and Eastern (3b: Jaugada) dialectal varieties, and (4), by the playwright Kalidasa in Saurasenic Prakrit, which shows the contrast between instrumental agent and nominal predicate in the past, and nominative agent and finite predicate in the present:

(3) a. *iyam dhammalipī devānampriyena priyadassina ranna lekhapita*

    b. *iyam   dhammalipi   devānampiyena piyadassina   [lajina]*
       this   law-scripture of-gods-friend friendly-looking king
       NOM.F.SG NOM.F.SG   INST.M.SG   INST.M.SG   INST.M.SG
       lekhita
       inscribed
       NOM.F.SG

       'The friendly looking king beloved of gods has (made) engraved this law-edict.' (PRK)

(4) a. *hau   pai   pucchimi … diṭṭhī   pia   pai   sāmuha*
       1SG.NOM 2.OBL ask.PRS.1SG   seen.F.SG loved.F.SG 2.OBL in.front
       jāntī
       passing.NOM.F.SG

       'I ask you… Did you see (my) beloved passing in front (of you)?'[3]
       (PRK)

    All Western and Central IA languages, now ergative, displayed at an older stage contrast similar to (4), with personal endings on the finite verb in the present whereas in the past the verb retains nominal morphology. In the latter pattern, the predicate shows gender and number agreement with the patient, while the agent is marked by the oblique case (a polyfunctional case, as a result of the usual syncretism ABL/DAT/LOC in the area). The pattern is attested throughout the Western and Central languages (5a–d); example (5e) from Kabir (13th c.) illustrates the so-called 'saint language', a transregional literary koine which belongs to the vast category of old Hindi (Kellogg 1972[1875]):

---

[3]The form *pai* for 2nd person is already used as a syncretic marker for several oblique cases.

(5) a. Old Punjabi

    guri   dānu   ditta

    guru.OBL/LOC gift.M.SG given.M.SG

    'The guru gave the gift.' (*Guru Granth Sahib*)

  b. Old Rajasthani

    sundari.nai   Bharath.ai   rākhī

    beautiful.lady.F.SG.ACC Bharath.OBL.M.SG kept.F.SG

    'Bharath kept the beautiful lady.' (Tessitori 1914–1916: 167)

  c. *kṛpā   kel.i   tumhī (Old Marathi)*

    pity.F.SG do.l.F.SG 2.OBL

    'You have had pity.' (Jñaneśvari 11.255, in Bloch 1970[1920]: 261)

  d. Old Braj

    maĩ   nahĩ mākhan   khāyau

    1.SG.INS NEG butter.M.SG eat.M.SG

    'I did not eat the butter.' (Surdas 25.1, mid 16th c.)

  e. Sant Bhasha

    gur.i   diyā   palītā

    guru.LOC/OBL give.M.SG stick.M.SG

    'The guru gave the stick.' (Kabir 8.3)

  f. Old Pahari

    Virrsigh Joysī.yã bhāṣ   pāi

    Virsingh Joshi.OBL proclamation/bond.F.SG get.F.SG

    'Virsingh Joshi (the king) received the bond.' (Stroński 2014: 283)

Some variation appears in this pattern already; note agreement with a marked object in Old Rajasthani (5b), a marking itself rather recent, as well as a *-l-* suffixation on the predicative participle in Old Marathi (5c), with variations in the oblique case marking (*ai, -hi /-i, -yã* ending). Still, the basic pattern is the same. This pattern was also maintained unchanged in the Eastern languages, with a similar contrast between nominative agent and finite form agreeing with agent in the present, as opposed to non-finite participial forms in the past with oblique agent. In the 16th century, the Bhojpuri first person pronoun still had a nominative form inherited from the Sanskrit nominative *aham* (*hau manus* 'I [am] a man'), whereas it displayed an oblique form stemming from the Sanskrit instrumental in the past (*maĩ pāi* 'I obtained') (cf. Tiwari 1966: 158). The examples in (6) illustrate a few of these Eastern varieties in early NIA, starting with a sample from the oldest Buddhist poems or *caryas*, in Old Bengali (Chatterji 1926), the

predecessor of Middle Maithili, Oriya, Bengali and Assamese, then other Eastern languages in their old or middle stages:

(6)   a.   Old Bengali
          mo.e   ghalil.i   hāḍerī-māli
          1SG.INS cast.off.*il*.F bone-garland.F
          'I have cast off the chaplets of bones.' (carya 10, in Chatterji 1926: 964)

      b.   Old Bengali
          ebe   maï   bujh.ila
          now 1SG.INS understand.*ila*
          'Now I have understood.' (carya 35, in Chatterji 1926: 964)

      c.   Old Maithili
          bhala   na   ka.la mañe   de.la   bisavāsa
          good.M.SG NEG do.*la* 1.SG.OBL give.*la* trust.M.SG
          'I did not [the] good, [that] I gave trust.'

      d.   *Tirahuti   le.li   jānhi*
          Tirahuti.F.SG take.*li*.F.SG REL.OBL
          'By whom (the city) Tirahuti was taken = who took Tirahuti.' (from Jha 1958: 491)

      e.   Old Awadhi
          eka rāta sapnā   mai   dekhā
          one night dream.M.SG 1SG.INS see.M.SG
          'One night I saw a dream.' (Nur Mohammed 4)

Slight differences start emerging also here, such as the variety of oblique forms for the first-person pronoun (alternate forms of the instrumental in (6a–b), syncretic oblique in (6c–d), and the extension of a *-l/il* suffix to the predicative participle). This suffix, with no particular meaning, was used with nominal and adjectival bases and is now used for deriving adjectives in many IA languages.[4] All Eastern varieties, stemming from the Magadhean Prakrits (as opposed to those stemming from the Western Sauraseni Prakrits) display a progressive erosion of gender marking between the 14th and 16th century, so that agreement grows less distinctive. But again, the basic pattern is essentially maintained. As indicated by the translations of the examples in (5) and (6), by and large taken from the publi-

---

[4]For instance, *rangīlā* 'colourful' from *rang* 'colour' or *kānthīlā* 'thorny' from *kānthā* 'thorn' in Hindi.

cations providing the respective examples,[5] the temporal meaning of the form extends from present perfect and pluperfect to the mere representation of anterior events as a preterit. As soon as the old passive participle started developing as the only expression for past, it assumed both the original stative / resultative meaning (perfect) and a new anterior meaning. This change in meaning has been well documented in Peterson (1998: 190) for Pali and in Breunis (1990) for Classical Sanskrit. I have accounted for it (Montaut 1996, 2007) along the lines of Bybee et al. (1994) as a gradual process of grammaticalization of the new periphrastic form: as long as the nominal form, initially a marked innovation aiming at stylistic expressivity, competed with the old tensed forms, it retained its original restricted meaning (resultative-stative). When the old forms disappeared, the new form, no longer stylistically expressive, occupied the whole space of past reference and acquired what Bybee et al. (1994) calls an open meaning. This meaning conveyed the values of preterit or anterior, resultative, stative-resultative and stative, as already observed by Bloch (1906: 60).[6] Later on, through foregrounding, then conventionalizing, the implicature (action leading to the resulting state), the adjectival form acquired an anterior meaning, while a new periphrastic form with a copula emerged for the perfect (around the 17th–18th ct.). This foregrounding of dynamic aspect resulted in the agent becoming foregrounded. Apparently, the topicalizing fronting of the agent becomes the rule during Middle Indo-Aryan (MIA) (Breunis 1990: Chapter 6 on word order), although Bubenik & Paranjape (1996: 116–117) date the linguistic perception of the oblique noun as a semantic subject to late MIA. It should however be emphasized that the agent was endowed with control and binding properties from the very beginning of the use of the predicative past participle (cf. Hock 1992), which means that in Late Sanskrit too dynamicity and prominence of the agent where already present. Such a parallel acquisition of first dynamic perfect, then aorist and preterit meaning, and of syntactic subjecthood of the agent echoes the evolution of the North Russian and Circum-Baltic perfect (cf. Seržant 2012).

---

[5]Except when they were translated by passive sentences as (6a). As for the gloss, I adopted the gloss INS wherever the pronoun has a distinctively instrumental form, not a syncretic oblique form.

[6]"Du contexte et du sens de la racine dépendent la valeur active ou passive et la nuance temporelle et modale du participe. Il est donc le substitut de toutes les formes verbales du passé à tous les modes et à toutes les voix". As for the copula, it was originally used only for disambiguating an omitted agent in the first or second person.

2.2 Further grammaticalization in Modern Eastern New Indo-Aryan: a shift from passive to active or 'possessive perfect'?

Whereas Western IA languages developed the non-nominative alignment with oblique agents further into a fully-fledged ergative pattern such as in (2a), Modern Eastern IA languages shifted back to a nominative alignment between the 14th and 16th century. Furthermore, most of them added personal endings to the participle, making it a finite tensed form, as in Bengali:

(7)   a.   Bengali
           āmi boi.ṭa   por.l.ām
           1SG book.DEF read.PST.1SG
           'I read the book.'

      b.   Bengali
           tumi boi.ṭa   por.l.e
           2   book.DEF read.PST.2
           'You read the book.'

As noted by Chatterji (1926), the new past tense personal endings (1 -*ām*, 2-*i*, -*e*), derived from personal pronouns, are distinct from the inherited present tense personal endings (1 -*i*, 2 -*ish, -o*). As for the -*l*-, which is now analysed as a past tense marker, and which also occurs in Marathi, it originates from an adjectival suffix (cf. Hindi -*il*- in *rang.il.ā* 'coloured'). This suffixation is further evidence for the adjectival nature of the predicate in the pre-ergative alignments (cf. Chatterji 1926: 928 and Tessitori 1914–1916). Its reanalysis as a past tense marker corresponds to the renewal of the "pre-ergative" alignment into a nominative alignment. Chatterji (1926), following the then-usual interpretation, considers this evolution a shift from passive to active,[7] but he clearly recognizes the resultative reading, as is also clear from his literal translation of this pattern, when the object is marked: 'there has been V by X as concerns Y'. Similarly, the evolution of this pattern in Eastern Hindi, which also displays the same suffix -*l*- in the definite past, is systematically interpreted as a shift from passive to active in Saxena (1937: 247 ff) for Bhojpuri, in Jha (1985[1958]: 492 ff) for Maithili, and in Tiwari (1966: 171) for Awadhi. The active reading, with concomitant acquisition of subject behavioural properties by the agent, was already present centuries before, so the modern shift in coding properties can be considered a mere final step in the grammaticalization of the construction. This evolution is in line with

---

[7]An 'archaic' remnant of the old system survived in classical Bengali with the -*e* ending for agents in transitive past, and is still present in Assamese.

Haspelmath & Sims's (2010) principle of Behavioural before Coding Properties. This is also the case in other Indo-European languages such as Persian (cf. Cardona 1970) and Latin/Romance languages, which went through a similar cycle: finite past tense > nominal sentence with predicative participle agreeing with the patient and oblique agent > verbal sentence with nominative agent and verb agreeing with agent, as stated in Kuryłowicz (1931[1960]; 1965). Here is the Old (2.2a) and modern (2.2b) Persian data considered by the author:

(8) a. *mana*   *tyâ*   *karta.m*   > b. *man*   *in*   *kar.d.am*
     1SG.GEN DEM.NOM.N.SG do.PPP.NOM.N.SG   1SG.NOM this do.PST.1SG
     'I have done that.'   'I did that.'

The corresponding Latin data involves a periphrastic past with participle and dative of the agent, renewed by means of the 'have' auxiliary and a nominative subject. In present-day French, a vestige of the old 'pre-ergative' pattern is still available: if the direct object is preposed, the participle agrees with it, and not with the subject (*les lettres que j'ai écrit.es, je les ai écrit.es*). Examples (9a) and (9b) illustrate this shift to nominative alignment in Latin as analyzed in Kuryłowicz (1931[1960]), example (10) shows the output in modern Romance, with the French, Italian and Spanish translations of (9):

(9) a. Latin
     mihi   *id*   *factum*   *(est)*
     1SG.DAT DEM.NOM.N.SG do.PPP.NOM.N.SG (be.PRS.3S)
     'I did/have done that.' (*lit.* 'to.me this done (is)')

     b. Latin
     ego   *id*   *factum*   *habeo*
     1SG.NOM DEM.ACC.N.SG do.PPP.ACC.N.SG have.PRS.1SG
     'I have done that/it.' (*lit.* I have this done)

(10) French
     j' ai fait ceci
     Italian
     io ho fatto questo
     Spanish
     yo he hecho esto
     'I have done that'

As stated by Kuryłowicz (1931[1960]) in his paper on the formation of tenses in Romance languages, further developed in his study on the evolution of gram-

matical categories (Kuryłowicz 1965), "the decisive step is the replacement of the dative + *esse* [be] + nominative by nominative + *habere* [have] + accusative. The passive construction has been transformed into an active one" (Kuryłowicz 1931[1960]: 107). Against this classic analysis of a nominative shift paralleling the 'active transformation', also proposed by the Indian scholarly literature mentioned above, Benveniste (1952), in a pioneering paper on the meaning of the perfect, proposed his own view of the perfect as basically possessive: the dative case marker in such periphrastic expressions with a participle was never an agent marker but a possessor marker, since Classical Latin uses the dative and verb 'be' to represent possession.[8] The possessive construction *mihi filius est* ('I have a son') later shifted to the 'have' construction (*ego*) *filium habeo*, in the same way as the perfect. Consequently, the evolution of the Latin (and Persian) perfect has, according to Benveniste (1952), nothing to do with a shift from passive to active, but is a mere reversal ("renversement, retournement") of the old possessive pattern. Similar conclusions were presented later by Pirejko (1979) and by Trask (1979: 397) who associates the possessive origin with "the incorporation into the inflectional paradigm of a nominal form" with a genitive agentive complement.

2.3 Re-interpretation of the IA grammaticalization path: the new agent case markers in ergative Western languages as localizers

This famous analysis of the Indo-European perfect by Benveniste raises however a problem regarding the Indo-Aryan data, since it is exclusively based on case marking. As already mentioned, the agent in classical Sanskrit, particularly if it is a full NP, is standardly in the instrumental, the standard agent marker in passive sentences (see Montaut 2016 for details), and not in a possessive case. Yet, further developments of the 'pre-ergative' pattern into a fully ergative alignment in Western IA languages provide arguments for considering the agent in a way similar to Benveniste's analysis of Latin. The new markers used to reinforce the old syncretic oblique case are indeed massively derived from location nouns. Moreover, they also served as a locative marker (such as the *-i* ending in Sant Bhasha in example (5e) above). Indeed, the most widespread form of the now ergative case markers is *ne* (*ni, nai, nẽ, ne*), found in Hindi/Urdu, Panjabi, Marathi, Gujarati, and it is derived from the locative (**karṇasmin*, a renewal of the classical form *karne* by analogy with the major paradigm) of the noun *karṇa* 'ear' (Tessitori 1914–1916: 65ff; for more details and examples see Montaut 2016).

---

[8] By contrast, the standard case marker for agents in passive clause is *a* + ablative in Latin, and similarly in Old Persian it is not a genitive but *hacama* + ablative.

Then this form underwent reduction along the following lines: *karnasmin > kan-nahĩ > kaṇṇhaĩ > kaṇṇaĩ > naĩ > nai > nẽ > ne*. Tessitori was the first scholar who identified the correct origin of *ne*, but already Trumpp (1872: 401) had traced *kane* ('near, at the edge', then 'to') to the Sanskrit noun *karna* 'ear'. The origin of the ergative marker has later on been accepted by all traditional grammarians (Tiwari 1961, Tiwari 1966; Saxena 1937; Chatterji 1926; Chatak 1966). Tessitori (1914–1916: 68–70) gives examples such as (11a) with a clearly locative meaning and (11b) with an agentive meaning:

(11)   a.   *mithyādṛsthi loka   kanhai sravai   vasirau   nahĩ*
            false.look   people LOC   hermit.M.SG dwell.PRS.3M.SG NEG
            'A shravaka (hermit) should [does] not live near heretics.'

       b.   Old Rajasthani
            adiśvara   naï   diksā   lidhi
            Adishwara LOC/ERG consecration.F.SG take.F.SG
            'The Adishvara took the consecration.'

The second most widespread ergative marker is *le* (*lai, al*), found in Kumauni, Garhwali, early Nepali, and it is derived from the verbal root *lag* 'to be in contact, touch' (*lagi/lāgi > laï, lai, le*) originally meaning 'having come in touch with', 'up to', 'for the sake of'. Reflexes of both markers are far more often used for dative (*nai/ne/nũ* in Rajasthani, Panjabi, Gujarati; *lā* in Marathi) than for instrument arguments (*ne* in Marathi, *-an/le* in Garhwali/Kumaoni). These connections should however not be overestimated, given the extremely weak semantic content of the initial etymon, and also given that the same ending *−i* was used in the Sant Bhasha of Kabir both for agents, as in (5e) above, and for locative complements, as in (12):

(12)   Sant Bhasha
       ābari   dīsai   ketā   tārā
       sky.LOC be.seen.3M.PL how.many star.M.PL
       'How many stars we have seen in the sky!' (146.1)

Finally, there is the Gujarati ergative marker with its alternation *ne/e*, the first form being related to the above-mentioned *ne* whereas the *-e* ending is also used as a locative case marker (cf. Cardona & Suthar 2003: 678) and seems to have been the initial marking, since we find it in both functions in the *Jain Gurjar Kavyo*, dating to the 14–15th century (14):

(13)   Modern Gujarati
    Sītā.e   kāgal   vācyo
    Sita.ERG letter.M.SG read.M.SG
    'Sita read the letter.' (Mistry 1997: 426)

(14)   a.   Old Gujarati
        jamunājī.n.e   tat.e
        Yamuna.HON.GEN.LOC bank.LOC
        'On the bank of the Yamuna river.'[9] (Desai 1926: 630)

      b.   *ame jamunā gayã   (…) rokyã   nandanā   nānhaḍī.e*
         1PL Yamuna go.M.PL   stop.M.PL Nanda.GEN small.boy.LOC/ERG
        'We have been to the Yamuna (…), [we] were stopped by Nanda's boy
        /Nanda's boy stopped [us].' (Desai 1926: 630)

The specialization of a given case marker for a given function is clearly recent (and in some languages still very weak: Montaut (2015; 2016) and Stroński (2010) quote various examples where the same marker is used for ergative, dative/accusative, and instrumental).[10] The original semantics of the words that grammaticalized to ergative case markers may explain such anomalous associations as agent and patient as distinct from subject (cf. Malchukov & Spencer 2009). Yet, a straightforward evolution of a construction with the passive participle into an ergative pattern with agents marked by originally localizing words is hardly plausible. One might be tempted to view the development from the passive participle in nominal sentences such as in (1) to the modern ergative construction given in (2a) and (13) as involving an intermediate stage which was neither a passive nor an active construction but a type of impersonal construction. This is a construction which Seržant (2012: 374) calls a 'free-dative-adverbial' complement as the agent (subsuming under 'dative' the adhesive, dative, locative and genitive case). This construction becomes ambiguous with respect to subject properties (control and discourse-related) during the early NIA period, as shown in (14b). Later, marked objects blocked agreement, which then facil-

---

    [9]Like in Hindi and all IA languages that maintained grammatical gender, the genitive postposition is an adjectiving suffix: the noun in the genitive agrees with the head noun in gender, number and case.

    [10]Bangaru (Panjab-Haryana) is well-known for displaying the same case-marker, *nai* in certain dialects, *sī* in others, for ERG, DAT/ACC and INS (for examples see Montaut 2007, Montaut 2015). Kului, a Western Pahari (Himachal, north of Panjab) also exhibits this peculiarity (example in Stroński 2014). Similarly, Maithili too displays "contradictory"uses of the postposition *so~* , INS/ABL, including for agents, and DAT/ACC (Jha 1958: 30).

itated reanalysis: This construction has been already identified as 'impersonal' in constructions with a marked object in traditional grammars such as Kellogg (1972[1875]) and Chatterji (1926), as their literal translations such as 'there has been V by X regarding Y' clearly demonstrate. It is in this abstract sense that the construction can be considered as a predication of localization: the process or the result is merely located in relation to the agent, not represented as the direct source as in the transitive model. Coming back to Benveniste and the Latin scenario involving the 'have' auxiliary, Benveniste (1952) clearly states that 'have' is but 'an inverted be', that is, a stative verb, transitive only apparently. He later developed this notion in an article on French auxiliaries (1960) to explain the use of possessive predication in French and Romance languages for expressing transient states (*avoir faim, peur, mal* 'be hungry, cold, in pain'). On similar grounds (inverted stative predication rather than the direct transitive source-goal model), I suggested an analogy between ergative as well as dative subject sentences widespread in modern IA to experiential predicates (physiological or psychological processes) and predications of localisation (Montaut 2004). Currently, dative experiential subjects have case markers that are distinct from ergative agents in modern languages (except in Bangaru). Both fully-fledged ergative patterns and dative subjects arose, depending on the language concerned, between the 14th and 16th century. They most probably derived from such localizing predications. This development is thus comparable to the reanalysis of impersonal intransitive constructions attested elsewhere; and it is in particular similar to the Slavic -*n/t* participle developing into perfect, as described by Seržant (2012). Significantly, constructions of the type exemplified in (1), (5), and (6) were also found with intransitive predicates, in Sanskrit as well as in early Western and Eastern NIA:

(15)   a.   Sanskrit

   ināhina [= *ina+*   *ahina*]   *sṭptam*
             DEM.INS serpent.INS crawl.PPP.NOM.N.SG

   'The serpent crawled.' (there has been crawling by the serpent)
   (Renou 1952: 198)

   b.   *asmakam*   *abhipretam*   *bhavantam kimcid artham*
        1PL.DUAL.GEN come.PPP.NOM.N.SG 2.ACC   INDEF for
        abhiprastum
        ask.INF

   'We have come here to ask you something.' (*Mahabharata* IIIg9)

c. Middle Bengali
   duhẽ   thak.ila   eka paśe
   both.OBL remain.*ila* one side.LOC
   'They both remained on one side.' (Chatterji 1926: 947)

Even the now highly anomalous clause *maĩ.ne gayā* 'I went', with the *ne* marker, reported to be frequently heard in the speech of migrants from Punjab to Delhi in the mid-20th century (Chatterji 1986: 71), can be explained by this scenario. This, as well as the diverging Eastern and Western evolutions, raises questions about the now standard labelling of such patterns as 'pre-ergative', also reflected in glossing of case markers, whether inflectional or postpositional (Assamese *-e* is never glossed ergative, and the language is not considered ergative, Gujarati *ne/e* is glossed Agent in Cardona & Suthar (2003) – although the authors consider the language ergative – and ergative by Mistry (1997). Syncretic obliques are usually glossed ergative in modern studies on Old Hindi).

3 The grammaticalization of the modal verbal adjective: an areal complementary distribution?

Whereas the construction featuring the PPP developed into ergative alignments in Western languages only via the nominal sentence with an instrumental agent, this construction was realigned into nominative alignments in the East. In parallel, another passive participle also developed, also via nominal sentences, into patterns with non-canonical alignment, which were further realigned into nominative patterns in Eastern languages only. This passive participle is the form ending in *-tavya*, 'to be V.ed', also called gerund or verbal adjective of obligation. I will henceforth gloss this form as gerund, although it is morphologically a participle, inflecting like an adjective. This form underwent an evolution strikingly parallel to the evolution of past participle in Eastern languages, a fact which has long been noticed by the historians of those Eastern languages but not considered as a highly relevant fact before Montaut (1996; 2007; 2016). Let us first see this type of evolution before turning to its developments in Western languages.

3.1 The parallel grammaticalization paths of future and past in Bengali and other Eastern IA languages

In Classical Sanskrit, the periphrastic construction involving a verbal adjective (sometimes called gerund or gerundive) was the standard way to express obli-

gation. This pattern, illustrated in (16a), is parallel to the past tense pattern in (1), but it is found both with transitive (16a) and intransitive verbs as shown in (16b) from Bloch (1906: 31). Example (17) illustrates both past and modal nominal sentences pervasive in the narrative register (*Tales of the Vampire*, in Bloch 1906: 59):

(16) a. Sanskrit
        mayā tat   kartavyam
        1SG.INS DEM NOM.N.SG do.GER.NOM.N.SG
        'I have to/should do that. (lit. 'by me this to-be-done')'

      b. *yamayor   apramattayā   tvayā bhavitavyam*
        regulations.LOC.DUAL attentive.INS.F.SG 2.INS be.GER.N.SG
        'You should be attentive (non-distracted) regarding the regulations.'

(17) *mantriputreṇoktam (mantriputreṇa-uktam) "adya tvayā gantavyam";*
      minister.son.INS.M.SG say.PPP.N.SG   now   2.INS go.GER.N.SG
      tayoktam (=tayā.uktam) "gantavyam"
      3.INS.F.SG say.PPP.N.SG   go.GER.N.SG
      'The son of the minister told her: 'Now you should go'; she said: 'should go'.'

This pattern remained unchanged in the various Prakrits of Middle Indo-Aryan such as the Magadhean variety in Ashoka (18), the direct ancestor of Bengali:

(18) *hida no kimci jive   alabhitu pajohitavye no pi ca samāje*
      here no some living kill   sacrifice.   no even and assembly
      NOM.N.SG   CV   GER.NOM.N.SG NOM.M.SG
      kattavye
      do
      GER.NOM.M.SG
      'Here one should not sacrifice by killing a living creature nor hold a meeting here.'
      (lit. here living being killing should not be sacrificed nor meeting should be held)

The forms involving the gerund seem to have included a temporal meaning from as early as the 3rd century in the eastern region: according to Chatterji (1926: 966), the corresponding form in (19) from Ashoka's rock edict in Sarnath has "a vague mandatory sense, with an express future implication":

(19) Prakrit

iyam   sāsane   vīnapayitavye
DEM NOM.M.SG principle.M.SG make.known.GER.NOM.M.SG

'This principle should/will be made known'. (made to be known)

Old Bengali (illustrated in (20a–c) from (Chatterji 1926: 967 ff) displays the same construction, both for intransitive and transitive verbs with the characteristic *-b-* suffix derived from the old *-tavya*, and agreement with the patient of transitive verbs, before the loss of gender blurred agreement and the ending *-ba* became invariable:

(20) a. Old Bengali
      toe   sāma kariba   maï   sānga
      2.OBL with do.*ba*(M.SG?) 1SG.OBL company.M.SG

      'I shall have union (do company) with you.'

    b. Old Bengali
      maï   dibi   piricha
      1SG.INS give.*b*.F question.F.PL

      'I shall ask questions.'

    c. Old Bengali
      tabẽ to.ka rakhiba   kona   jāne
      then 2.ACC protect.*ba* which person.OBL

      'Then who will protect you?'

    d. *maĩ   jaivo (=jaiba?) govinda saha khelaṇa*
      1SG.INS go.*b*   Govinda with play.INF

      'I shall go to sport with Govinda.' (Chatterji 1986: 30)

Around the 15th century, this construction was transformed into a nominative one, with nominative (unmarked) agents and tensed verbs agreeing with the agent. The verbal form consists of the old *-ba-* form now suffixed with finite person endings. These suffixed person endings are the same as the ones used for past, both distinct from the present endings (*-ish* and *-o* for second familiar and second respectful person respectively):

(21) a. Modern Bengali
      tu boi.ta   por.bi
      2SG book.DEF read.FUT.F.2SG

      'You (familiar) will read the book.'

b. Modern Bengali
tumi boi.ta por.b.e
2HON book.DEF read.FUT.F.2HON
'You (respectful) will read the book.'

The verb morphology is now analysed as base + future marker *-b-* + person ending, in the same way as the past is now analysed as base + past marker *-l-* + person ending, both processes of reanalysis occurring at the same time. The above-mentioned grammarians also acknowledged this parallel in the evolution of Eastern IA languages as a common 'active transformation'. Chatterji (1926: 987) notes for Bengali that "the affixes are exactly on the lines of the past", in contrast with those for the present, and also that the shift in alignment occurred at the same time for future and past. Other Eastern IA languages also went through this 'active transformation' but the respective outcomes are not as clear as in Bengali. In Awadhi, for instance, the sigmatic inherited future persisted and is still prevailing in certain persons (and similarly in Bhojpuri), and Maithili, which now consistently displays a *-b-* future, has acquired a complex agreement system indexing several participants. But in older times the construction was maintained with the now-lost gender agreement still visible, for instance in Vidyapati (14th century):

(22)   a. Old Maithili
sumarabi mori name ... prema sumaraba
remember.*b*.F my.F name.F love.M remember.*b*.M
'You will remember my name, you will remember my love.' (V 9, in Jha 1958: 494)

b. *hamahŭ nāgari sabe sikhaūbi*
1.OBL lady.F all(=pl) teach.*b*.F
'I shall instruct the ladies.' (V 52, Jha 1958: 495 495)

c. *mañe ki bolaba sakhi apana geñāna*
1SG.OBL how speak.*b* friend REFL experience.M.PL
'O friend, how shall I speak out (my) feelings.'[11] (V 24, Jha 1958: 495)

Awadhi and Bhojpuri, which have now a complex paradigm in the future, also displayed the same morpho-syntactic pattern in their early stages before the shift

---

[11] In example (22b) *hamahŭ* is the oblique form of the first person (singular and plural, today *hama*), whereas (22c) displays an oblique case of the base for first singular person, now gone out of use, with a case marking left unglossed by the author, but reminiscent of the palatal oblique forms for first person (Hindi *mujh, mujhe*).

to the nominative subject occurred. Similarly, Tiwari (1966: 171) observed for Bhojpuri that "the future affixes for the first, second and third persons masculine and feminine singular and plural are in a line with those of simple past". Remarkably, in Awadhi, the *-ba* predicates combining with an oblique agent of the older pattern that prevailed till the 16th century could still convey necessity, which was no longer the case for the Bengali or Maithili equivalents. The resilience of the old sigmatic future in certain persons in Awadhi may explain why the *-b-* form took longer to grammaticalize into a future marker:[12]

(23) a. Awadhi
      kathā   bhāśā-baddha   karabi maĩ   so-saba hetu   kahaba
      story.F.SG language-ridden do.b.F 1SG.INS this-all because say.b.
      maĩ   gāī
      1SG.INS sing.CV

      'That story is to be composed by me in the vernacular, for this reason it is to narrated by me by singing.' (or: I shall compose, I shall tell by singing)[13]

   b. *ghara kaisai paiṭhaba maĩ   chũche,   kaunu utara*
      house how   enter.ba 1.SG.INS deprived which answer.M.SG
      debau?
      give.b.M.SG

      'Empty how shall I enter the house, what answer shall I give?' (Saxena 1937: 261)

   c. *prāna-priya siya   jānibi,   nija kinkarī-kari mānibi*
      life-dear   Sita.F.SG know.b.F.SG REFL slave   consider.b.F.SG

      'Sita is to/will be regarded as beloved like life, she is to/will be accepted as thy slave.' (Chatterji (1986: 96) translates this form as obligative)

---

[12]Depending on the dialects: only the first person forms have the *-b-* ending in western dialects of Awadhi, and first and second person in eastern dialects. The *-h* form (inherited sigmatic future *ṣ > s > h*) prevails in the third person, but in early Awadhi *-b-* was found in all persons, although not systematically (Saxena 1937: 264–266).

[13]Same example is translated in Saxena (1937: 260) by a future form: *bhasa-badha karabi maĩ* 'I shall render it in popular language'.

3.2 Kuryłowicz's explanation of the parallel nature and development of perfect and future

This parallel evolution of past and future systems was also noticed by Kuryłowicz (1931[1960]; 1965) for Romance languages, based on different, but equally convincing morpho-syntactic evidence. The future in modern Romance languages is indeed a very peculiar innovation, involving the verb 'have' constructed with the infinitive. The same auxiliary is used as in the perfect, the difference being only that in the future, the infinitive precedes the auxiliary, resulting in a fused form, whereas the auxiliary after the verb in the perfect is still free (cf. 10 above). Here are the forms in French and Spanish, with similar formation in Italian:

Table 1: First, second, and third person singular future forms of 'sing' in French and Spanish.

	1st person 'I will sing'	2nd person 'You will sing'	3rd person 'He will sing'
French	Je chanter.ai	Tu chanter.as	Il chanter.a
Spanish	Yo cantar.é	Tu cantar.ás	El cantar.á
	1SG sing.INF-1SG	2SG sing.INF-2SG	3SG sing.INF-3SG

The endings are either identical to (French) or derived from (Spanish) the present paradigm of 'have' (*j'ai, tu as, il a*). The French pattern is clearer, since past and future auxiliary have the same form (*j'ai chanté, tu as chanté, il a chanté*), whereas the past auxiliary displays an initial *h* in Spanish as a separate auxiliary (*he cantado, has cantado, ha cantado*). Historically, the "have" periphrastic future acquired its temporal meaning from the original meaning of necessity in Vulgar Latin, with the infinitive shifting from passive to active morphology (*cantari > cantare*). According to Kuryłowicz (1931[1960]: 107), the striking parallelism between perfect and future (in contrast to the present) crucially relies on the origin of the *habere* periphrastic future: the 'have' periphrasis is for him the continuation of the Latin verbal adjective of obligation (sometimes called gerund or gerundive in -*nd*-):[14]

---

[14]The initially passive infinitive was replaced by the active infinitive as soon as Late Classical and Vulgar Latin. The probable original pattern for (24b), as duly noticed by Benveniste, was then:*ego id cant.ari habeo* 1SG this sing.INF.PASS have.1SG 'I have this to be sung, to sing.' As for the dative pattern with obligation gerund, on the popular patterns in *delenda est Carthago* ('Carthago is to be destroyed') or *mihi colenda est virtus* ('Virtue is to-be-culvated to me'), all

(24) Latin

    a. *mihi   cantandum est* > b. *(ego)   cantare habeo*
      1SG.DAT sing.GER   be.PRS.3SG 1SG.NOM sing.INF.ACT have.1SG

    'I have this to be sung, to sing > I will sing' (Kuryłowicz 1931[1960]: 107)

The -*nd*- verbal adjective was used with a dative agent and agreed in gender and number with the nominative patient, like the -*tavya* sentences in (16–17). But unlike in the latter, the copula was required (agreeing with the nominative patient), as shown in (25):

(25)   a. Latin

        mihi   sit   referenda   omnis illa oratio
        1SG.DAT be.PRS.3SG relate.*nd*.F.SG all   this discourse.F.SG.NOM

        '[to which] I should relate this whole discourse.' (Cicero: *De Oratore* II.114)

    b. *nunc est   bibendum*
        now be.PRS.3SG drink.*nd*.N.SG

        'Now one should drink.' (Horatius)

Thus, we can summarize the Latin evolution of perfect and future in Table 2 below, which highlights similarities to the IA data. In a very illuminating paper on the evolution of grammatical categories, Kuryłowicz (1965) further developed the hypothesis of a deep similarity between these two tenses: on his account, perfect and future are both basically non-active because they do not aim at depicting an action, but at representing viewpoints, from the present, on this action. This contrasts with the present that aims at directly representing a process.

Benveniste (1966[1965]) reached similar conclusions regarding the symmetry of past and future (both 'orthogonal' relatively to the present, both representing perspectives on an action rather than processes proper). However, Benveniste (1966[1965]: 131) radically rejected Kuryłowicz' interpretation of a parallel evolution from Latin, arguing that the Latin construction involving *habere* never had an obligative meaning and was used as a 'future of predestination' in Christian preachers, in the meaning 'fated to happen'. This latter argument has later on been proven wrong, as well as the accusation against Kuryłowicz of mistaking

---

the numerous examples quoted in Touratier (1994: 164 ff) as well as other examples in the most classical writers such as Cicero, it always has a modal, not temporal, meaning : *senibus labores corporis minuendi sint* ('[So that] old people should minimize physical works' Cic *De Officiis* 1.123) ; *cum haec nobis quaerenda sit in causis* ('As in our causes we have to research these [goals]' Cic *De Oratore* II. 120).

Table 2: Alignment development from Early/Classical Latin to French.

alignment	perfect	future
Nominative: synthetic verb form, NOM subject, person agreement (Early/Classical Latin)	*(ego) feci/cantavi*	*(ego) faciam /cantabo*
Non-nominative: participial verb, DAT agent, no person agreement (Late Latin)	*mihi factum/cantatum est*	*mihi faciendum /cantandum est*
Nominative: V + have, NOM subject, Person agreement (Vulgar Latin)	*(ego) factum/cantatum habeo*	*(ego) fieri/cantari habeo*
Nominative: V+ have, NOM subject, person agreement (French)	*j'ai fait/ chanté*	*je fer.ai/chanter.ai*

a passive infinitive for an active infinitive. Yet, Benveniste's major reason for rejecting the symmetry of the two developments might have had something to do with his own thesis of the 'possessive perfect', since it seems more difficult to derive the future meaning from the possessive (more details in Montaut 1997). The ambiguity between the original meaning of obligation (or potential) and the new meaning of future was attested between the 2nd and 3rd century by grammarians such as Tertullian and Pompeius. On the other hand, the future meaning was found only later (in conformity with Bybee et al. (1994)'s generalizations), mainly in texts by Christian writers and grammarians, with no particular connotation of predestination. Moreover, it is almost exclusively used in learned texts, chiefly from Africa. Its earliest – and still ambiguous – instance in a colloquial register is found in Wâdi Fawâki's letters (cf. Adams 2011; 2013: 659).[15]

---

[15]Compare the ambiguous (future/alethic) example from Tertulian quoted in Adams (2011: 148): *si enim sustuleris istam tertiam, remanere habent duae* 'for if you take away the third (syllable) two will (have to) remain' (GL 129.6). Wâdi Fawâki's letter to Rustius Barbarus is also ambiguous between future and deontic modality: *adferre habes* 'you have to bring' or 'you will bring' (Adams 2013: 659).

To my knowledge, no study points to a direct transformation of the Latin dative alignment with the *-nd-* gerund into the nominative alignment with *habere*, but this reanalysis is basically equivalent to the transformation regarding the perfect. The striking event in the history of the Romance languages is the total extinction of the Latin synthetic future and the subsequent formation of new futures, often on the basis of an obligative periphrasis (*habere*). Thus, grammaticalization of obligation into future is undoubted (Adams 2011; Bourova & Tasmowski 2007), not least because it conforms to a typologically common source for futures (Heine & Kuteva, this volume). In this respect, it parallels the Eastern IA data, which display an observable, continuous history from non-nominative alignment to nominative alignment.

3.3 Divergent evolution of gerund in Western IA languages

However, this evolution from modality to future is not pan-Indian, and this is a strong difference with the past in the general evolution of Indo-Aryan. Whereas the *-ta* form, being the normal expression of past, rapidly became the substitute for all verbal forms of the past, the *-tavya* form never became the normal expression of future because the old synthetic future was maintained in many regions and prevented the new periphrasis from extending to the field of future. In Western IA languages, the old verbal adjective (V.ADJ) of obligation was maintained in its original meaning up to the middle stage of NIA. For instance, the ergative-like pattern of Ashoka (early MIA), presented as the origin of the Eastern *-b-* future in (18) above, has a Western equivalent in Girnar (now Pakistan):

(26) *hida   na kimci jivam arābhitpā prajuhitavyam na ca   samājo*
     here   no some living kill   sacrifice.   no and assembly
     NOM.N.SG   CV   V.ADJ.NOM.N.SG   NOM.M.SG

     kattavyo
     do
     V.ADJ.NOM.M.SG

     'Here one should not sacrifice by killing a living creature nor hold a meeting.'
     (lit. here should not be sacrificed killing a living being nor should meeting be held)

The same pattern, with a *-v-* form, continued till late MIA (Apabhramsha stage, turn of the millennium) for instance in the well-known Western Jain text *Paumacariu*, with or without oblique agent, clearly patterning like the past sentences exemplified in (27c):

(27) a. Apabhramsha
      annu   na nam.ev.au
      other.M.SG NEG respect.V.M.SG
      'No other is to be respected.' (Paumacariu 26.3.2)

   b. *navara ekku vau   maĩ   pālevau*
       only   one vow.M.SG 1SG.INS keep.ev.M.SG
       'I shall/should observe only one vow.' (Bubenik 1998: 194)

   c. *tā   keumaiẽ   haũ gharaho nīya*
       then Ketumati.INS/OBL 1SG home.LOC conduct.PPP.M.SG
       'Then I was taken home by Ketumati'/'Then K took me home.'
       (Bubenik 1998: 148)

Those NIA languages that inherited this state of affairs and also retained the sigmatic future (e.g. Old Gujarati, Marathi, Rajasthani) maintained the -*tavya* pattern with an obligative meaning till their middle NIA stage, contrary to the Eastern languages which started shifting to a future meaning during their early NIA stage. Old Gujarati, for instance, shows agreement with patient and instrumental agent (-*im*), and the obligative meaning in the 16th century text *Upadeśamālā*:

(28) a. Old Gujarati
      isī   upamā   jāṇivi
      such.F.SG comparison.F.SG know.V.F.SG
      'Such a comparison should be known.' (Dave 1935: 64–65)

   b. *ṣisyiĩ   te   kārya   tatkāla   ācarivaũ*
       pupil.INS DEM.M.SG work.M.SG immediately do-V-M.SG
       'The pupil should immediately do that work.' (Dave 1935: 94)

   c. *te pāpiu jāṇi.v.au*
       3M.SG.INS know.V.M.SG
       'He should be considered as a sinner.' (Dave 1935: 54)

This is a direct continuation of the 14th century language found in the *ṣadā-vaśyaka*, the oldest written testimony of Old Gujarati. According to Pandit (1976: 23), the "gerund" used as a predicate had an "imperative [= obligative] sense" in this variety: *rakhivaũ* in the masculine 'is to be saved', *karivaũ* 'is to be done', *vyavasthāpivi* in the feminine 'is to be founded'. In Old Rajasthani, similar obligative constructions are still found in the 16th century, the time when the language is supposed to have diverged from Old Gujarati. The obligative construction is

attested both with intransitive as shown in (29c) and transitive predicates, the latter both with and without an agent, given in (29b) and (29a) respectively:

(29) a. Old Rajasthani
       hisā   na   kar.av.ī
       violence.F.SG NEG do.*av*.F.SG
       'Injury is not to be done.' (Tessitori 1914–1916: 120)

     b. *anere   vidya   lete   vinay   kar.iv.um*
       other.PL.INS knowledge taking humility.M.SG do.*iv*.M.SG
       'Humility should be observed by others acquiring knowledge.'
       (Tessitori 1914–1916: 120)

     c. *taĩ   na   jāi.vu*
       2.INS NEG go.V.M.SG
       'It should not be gone by you.' (Khokhlova 2013: 101)

Old Marathi also displays similar constructions, which Bloch (1970[1920]: 264) presents as parallel to the past constructions, with example (30): the "syntax, with the logical subject in the instrumental, [is] very similar to that of the form for past".

(30) Old Marathi
     majhyānẽ cālavlẽ   / dhadā   sikhavlā
     1SG.INS   go.POT.PST.N.SG / lesson.M.SG learn.POT.PST.M.SG
     'I could/was able to go / to learn the lesson.' (Bloch 1970[1920]: 265)

Bloch also mentions a dative alternation for the agent (*majhyānẽ* or *mālā*).

3.4 The Marathi case: an exception to the areal complementary distribution

The -*tavya* obligative gerund was, as a rule, lost in modern Western IA languages, whereas it developed into a future with nominative realignment in the Eastern IA languages. On the other hand, the construction with the Sanskrit participle -*ita* in the past was maintained with the original alignment and developed into an ergative construction in the West, whereas it was realigned to a nominative pattern in the East. One could conceive of this as a complementary distribution between languages maintaining the non-nominative construction of the PPP on the one hand and languages maintaining the -*tavya* form as a predicate on the other. Marathi is however an exception, since the modern language still displays

the same pattern as in (30), albeit with the new case markers. Note that in modern grammars, the *-av-* suffix is usually glossed as 'subjunctive' (sometimes as 'potential'), and the marker *ne* is usually glossed as agent in such constructions. However, it is glossed ergative in past constructions (Dhongde & Wali 2009: 44), and now occurs only in the 3rd person, although in the unmarked 1st and 2nd person, the verb still agrees with the object.[16] Marathi is hence exceptional in two respects: one, unlike other Western languages, it maintained the *-tavya* predicative form; two, unlike Eastern languages, it maintained this form in its original obligative meaning and alignment.

(31)   Marathi

   a. *tyāne   ghari   yā.v.e*
       3M.SG.INS/AG home.LOC come.*av*.N.SG

       'He should come home.' Marathi

   b. *tyāne   cĩc   khā.v.ī*
       3M.SG.INS/AG tamarind.F.SG eat.*av*.F.SG

       'He should eat tamarind.'

This construction has a nominative counterpart (32), with the verb agreeing with the subject. It is analysed as potential and not obligative in Wali (2004) and Dhongde & Wali (2009), but for Pandharipande (1997: 290) both meanings are conveyed by the (31) construction.

(32)   *to   ghari   yā.vā*
       3M.SG.NOM home.LOC come.SBJV.3M.SG

       'He may come home.'

What is clear from these various evolutions is that wherever a different form for the future was available – be it the inherited sigmatic future in Gujarati, Rajasthani, and Braj, or a new form *-l-* as in Marathi – the *-tavya* verbal adjective retained its modal value (Marathi) or disappeared from the TAM paradigm altogether (other Western languages). All Western languages except Marathi indeed developed periphrastic constructions with verb 'be' or 'need' and dative 'subjects in non-canonical alignments (see ex. (36) below). The reason why only Marathi maintained the original construction and verbal form is most probably because

---

[16]The verb also agrees with the agent in the 2nd person: *tyāne samayā ghas.l.yā* (3SG.ERG lamp.N.PL wash.PST.N.PL) 'he washed the lights', vs *tu samayā ghas.l.yā.s* (2SG.ERG lamp.N.PL wash.PST.N.PL2SG) 'you washed the lights'.

it is also the only language which retained the old Sanskrit infinitive in *-tum*. In contrast we observe the presence of *-v- /-b-* infinitives inherited from the *-tavya* form in all languages which lost the obligative meaning of the predicative *-tavya*.

4 From the *-tavya* gerund to infinitive and verbal noun

The original, invariable Sanskrit infinitive (*-tum*) rapidly fell out of use in Indo-Aryan and the category itself almost disappeared, replaced in most modern languages by verbal nouns in *-an/ana* or, in the East, by former participles. Marathi is the only language to maintain the old form and category. Gujarati is another exception regarding the infinitive and verbal noun, since it never developed an *-an* verbal noun and instead marked both the infinitive and the verbal noun by a single form derived from the *-tavya* gerund. This development also occurred in other languages but was ultimately inhibited by the growth of the *-an* forms.

4.1 The Gujarati infinitive: infinitive and inflecting verbal noun

The single form of the infinitive in Gujarati is *-vũ*, which scholars relate to the old verbal adjective in *-tavya*: Dave (1935: 64) and Chatterji (1926: 966) for instance derive the Gujarati verbal noun *karvū̃* from the verbal adjective or passive obligative participle *kartavyam*. This verbal noun agrees in case, similar to the *-an/-ana* form in other IA languages: *jovũ* 'to see', *jovā lāyak* 'worth seeing'.

(33) *a   khā.v.ā   lāyak vastu che*
      DEM eat.*v*.OBL worth thing be.3SG

      'This is a thing worth eating.'

In periphrastic permissive constructions with the verb *de* 'give' and inceptive constructions with the verb *lag* 'touch/start', the verbal noun similarly displays the oblique form *-ā*: *karvā de* 'permit to do', *khāvā lag* 'start to eat' (cf. Cardona & Suthar 2003: 688; Dave 1935: 52 ff.).[17] Used in obligative constructions with 'be', it agrees in gender and number with the object, like the *-an* infinitive forms of other NIA languages in obligative constructions. But unlike other NIA languages, the Gujarati *-v-* infinitival form, in combination with auxiliary 'be' or 'need', can be used to convey not only obligation, but wish too, as shown in (34b) and (35b), respectively. The meaning of obligation is conveyed by an extended form of the

---

[17]In these two constructions, languages with *-an/na* infinitives also display the oblique form of the verbal noun (Hindi *karne do* [do.INF.OBL give.IMPER] 'allow [x] to do/let X do', *khāne lagā* [eat.INF.OBL start.M.SG] '(he) started to eat'.

infinitive (-*v-an-*), with the relational suffix -*an* added (cf. Cardona & Suthar 2003: 677), whereas the desiderative meaning requires the short form -*v-*. Both forms are constructed with the copula:

(34) a. *mar.e caupḍī vanc.van.ī che   / lekh   lakh.van.o*
         1SG.AG book.F.SG read.*van*.F.SG be.PRS.3 / article.M.SG write.*van*.M.SG
         che
         be.PRS.3S
         'I have to read a book / to write an article.'

     b. *tam.ne kyā   jā.vān.u   che*
         2.DAT where go.INF.N.SG be.PRS.3SG
         'Where do you have to go?' (Cardona & Suthar 2003)

(35) a. *mar.e caupḍī vanc.v.i che   lekh   lakh.vo*
         1SG.AG book.F.SG read.v.F.SG be.PRS.3 article.M.SG write.v.M.SG
         che
         be.PRS.3SG
         'I want to read a book, to write an article.'

     b. *tam ne kyā   ja.v.u   che*
         2   DAT where go.INF.N be.PRS.3
         'Where do you want to go?' (Cardona & Suthar 2003)

It should be noted that, although the meanings are very close to the Marathi obligative or potential sentences with finite forms in -*v*-, the morphology here is that of a verbal noun. This is exactly parallel to the -*an* formations of Hindi or other languages with gender/number agreement of the verbal noun. Interestingly in Gujarati, case marking is not limited to the dative as in other Indo-Aryan languages like Hindi, but exhibits an alternation between dative and agentive. Both are possible with the same pronoun as shown in example (36a), which expresses necessity with the 'need' auxiliary *joie* + verbal noun. The Hindi/Urdu equivalent, with verbal noun in -*n*- and *cāhie* (etymologically from a 'look' verb, like the Gujarati *joi*), has the same agreement pattern (default agreement with intransitives, object with transitives), but no alternation with the ergative/agentive. Punjab Hindi does display case alternation, depending on dialects (cf. Khokhlova 2013):

(36) a. Gujarati

mār.e / ma.ne ghar jā.v.ũ   (gujarati bol.v.i) joie
1SG.AG / 1SG.DAT home go.INF.N.SG Gujarati.f speak.v.f need PRS.3SG

'I should go home. (speak Gujarati)' (Cardona & Suthar 2003)

 b. Hindi/Urdu

mujhe ghar jā.nā   (gujarati bol.nī)   cāhie
1SG.DAT home go.INF.M.SG Gujarati.f speak.v.f need PRS.3SG

'I should go home (speak Gujarati).'

 c. Punjab Hindi/Urdu

maĩ.ne / mujhe ghar jānā   hai
1SG.ERG / 1SG.DAT home go.INF.M.SG be.PRS.3SG

'I should go home.'

The agent in (36c) is usually glossed ergative because of its identical form (*ne*) with the specific ergative marker in transitive past clauses in Hindi/Urdu and Punjabi. In sentences like (36a) and (33–34) above, the Gujarati -*e* is usually glossed agent whereas the same marker is glossed ergative in transitive past clauses with similar agreement pattern (like in example 13 above). Despite the variable glosses, it seems that Gujarati is shifting to dative agent, the standard expression of obligation in all languages with the new -*an* verbal nouns, originating from a construction with an instrumental agent. The predicative -*tavya* verbal adjective was used to express obligation in the old language (like throughout middle IA), but a copula construction also emerged in the 16th century, where the −*tavya* form is an infinitive and no longer a predicate by itself, similarly constructed with an instrumental agent:

(37) Old Gujarati

jīṇaĩ   jīviĩ   jīhẫ jāi.v.aũ   chai
REL.INS person.INS there go.v.M.SG be.3M.SG

'The person who is designated to go there.' (= who should go) (Dave 1935: 67)

Outside this construction, verbal nouns in -*v*- were also as in the modern language commonly used with the meaning 'worth of V', and as an action nominal (*āsana naũ le.v.aũ* 'the taking of the seat', *viṇasi.v.ā nai-kāji* 'in order to be destroyed', cf. Dave 1935: 54).

(38) a. *pāsachā   siū aṇamila.v.aū bhalaū*
          depraved.OBL with not.mix.*v*.M.SG good.M.SG

          'It is good (the good is) not to mix with the depraved.' (Dave 1935: 64)

      b. *pāsachā   siū boli.v.ũ,   ekaĩ upāśrayi rahi.v.ũ*
          depraved.OBL with speak.*v*.N.SG one.LOC hostel.LOC stay.*v*.N.SG

          'To speak with the depraved, to stay at the same hostel.' (Dave 1935: 64)

4.2 Development and specialization of the -v/-*b*- infinitive

This -*v*- infinitive is present from late MIA onwards (Pischel 1971[1900]: 388). In the 11th century Jain Digambara texts (cf. Tagare 1948: 322) it is attested as a verbal noun, in parallel to its predicative use as in examples (27) and (28). Both uses are maintained throughout early NIA and continue to be used in many modern Western languages such as Braj (*māribaũ, māribau* 'to strike'), Rajasthani (*mārabo*), and Kanauji further north (*māribo*). This long tradition is documented for the older stages of Rajasthani Gujarati in Tessitori (1914–1916: 121):

(39) Old Rajasthani
      jīp.ava   vaṃchai
      win.*ava* want.PST.3SG

      'He wishes to conquer.' (Tessitori 1914–1916: 121; Chaya to Yogasāstra III-134)

In modern languages with two forms of the infinitive, the distribution is not quite clear. Braj for instance seems to select the -*n*- form for goal functions and as a complement of inceptive verbs (40c–d) and the -*b*-/-*v*- form for more nominal uses (40a–b), as illustrated by the 18–19th c. examples given by Kellogg (1972[1875]: 289):

(40) a. Braj
          sadā kahu   saũ rah.iv.au nāhi
          always somebody with stay.*iv*.M.SG NEG

          'One does not remain always in the same company.'
          (Lit. 'There is no staying always with anybody')

      b. *mere putrani kaũ pandit   kar.iv.e jog   hai*
          my   son.PL   ACC wise.men do.*iv*.OBL worth be.SG

          'You are competent for making my sons wise men.'

    c. *tum saũ kah.an kaũ āyau haũ*
       2   SOC say.*an* DAT come PFT.1SG
      'I have come to tell you.'

    d. *rājā kah.ani lāgyau*
      king say.*an* start.M.SG
      'The king began to say.'

Snell (1991: 16) suggests that in Classical Braj (16–18th ct.), the *-b-* form was chiefly used with inflected verbal nouns, while the *-na-* form occurred with semi auxiliaries such as *de-* (permissive), *pā* (ability) and *lag* (inception). Both forms were also employed to signal goal functions.[18] Bundeli, a South-western language sometimes considered a Hindi dialect, also has two types of infinitives. The *-na* form is preferred in permissive and inceptive constructions (*moṛā khõ khānā do* 'let the boy eat' (cf. Jaiswal 1962: 132) while the *-b-* form typically occurs in nominal uses.[19]

(41) a. Modern Bundeli
      daur.b.o ūke cala.b.e barābar hai
      run.*b*.M.SG 3.SG.GEN walk.*b*.OBL same be.3.SG
      'Your running is equal to his walking.' (Jaiswal 1962: 133)

     b. *tumāe kara.b.e khõ ite bohota hai*
      2.OBL do.*b*.OBL DAT here much be.3SG
      'There is much for you to do here.' (Jaiswal 1962: 133)

Whereas all Western languages at some point displayed, and many of them still display a *-v-/-b-* infinitive, the Marathi exception can be accounted for by the resilience of the inherited Sanskrit infinitive. It is also the only language which maintained the predicative gerund in its original obligative meaning. Since in Eastern languages the gerund developed into a future marker, one might also think that languages which lost the predicative construction turned the gerund into a verbal noun. On this account, three grammaticalization paths of the gerund are in complementary distribution: one, obligation and potential with new case markers as in Marathi; two, future with realignment in Eastern languages; and

---

[18]For instance, as a complement of movement verbs: *mokõ pakaran kõ āyo* 'he came to touch me', *mokõ spars karive kaũ doryau* 'he ran to touch me'.

[19]The *-na-* form alternates with the *-b-* form in presence of the agent suffix *-baro* (*karna baro* 'doer', *khabe baro* 'eater') whereas the *-b-* form is only allowed with the *-aiya* suffix (*dekhabaiya* 'seer').

three, infinitive and verbal noun as in Gujarati and other Western languages. But it is obvious that the *-b-/-v-* verbal noun is also present in Eastern languages, although to a lesser extent than in the West.

4.3 The infinitive in the Eastern languages

Modern Maithili has three forms of infinitive (*-ana/āna, -al/ala, -aba/ab*), the two latter forms alternate with postpositions: *dekh.lā me sunnar* or *dekh.bā me sunnar* 'beautiful to look at' (Jha 1958: 519). Similar examples were already attested in Middle Maithili with the same *-ba/-va* form, and with a wider range of functions, such as *kopahū kara.vã joga* 'fit for showing anger' (Vidyapati 50, in Jha 1958: 519), or as a verbal noun in inceptive and volitive constructions:

(42)   Middle Maithili
       kamal.āsana kichu   kahavã   lāgu
       lotus.seat   something say.*v*.INF;OBL start.M.SG

       'The lotus-seated [god] began to say something.' (Jha 1958: 611)

Assamese (North East) also has an infinitival form, ending in *-iba*, which is included into the suffix *-(i)ba.logya* 'worth to' (*sa.ba.logyia* 'worth to see'), and is required as a nominal formative and in concatenation with the modal 'be able':

(43)   a.   Assamese
            za.b.âr   xâm.ât
            leave.*b*.GEN time.LOC

            'Time of leaving.'

       b.   *xi   saikel   sâla.bo par.e*
            3M.SG bicycle ride.*bo* be.able.3M.SG

            'He can ride a bicycle.' (Goswami & Tamuli 2003: 425)

Similarly, the standard Oriya infinitive ends in *-ibā* and is used as a noun before postpositions (*ās.ibā ku* '(in order) to come'). Although modern standard Bengali does not display *-b-/-v-* infinitives, the variety spoken in Assam (Tunga 1995) has similar forms used for complements of modal verbs (*karibar paro* 'I am able to do'). Grierson (1903–1928) mentions Bengali constructions such as *ja.b.ār somoy.i* [go.*b*.GEN time.LOC] 'at the time of leaving', *korbā lāgil* 'he began to do', continuing from Middle Bengali *lage balibar* 'he began to say' (cf. Chatterji 1926: 1008). Besides, standard Bengali still uses it in nominal functions, particularly in the genitive (*-ar* ending): *ja.b.ar somoi* 'at the time of coming'; *as.(i)b.ar janye*

'for coming'. As for mid-Eastern languages such as Bhojpuri and Awadhi, they have *-be/-bu* verbal nouns alternating with the *-ana* forms in both their modern and early stages (cf. Saxena 1937: 282–285). So, it seems that, apart from Marathi, which maintained the old Sanskrit infinitive, only standard Hindi/Urdu and Panjabi, the so-called central IA languages, do not have the *-b/v* infinitive. However, it should be remembered that Hindi and Urdu , sharing as common ancestors Braj, Avadhi, and, most importantly, the popular literary *koine* of the mystic preachers, the Sant Bhasha, and Panjabi also shares the Sant Basha ancestry.[20] They retained only the *-an/-ana* infinitive, which is used in obligative constructions as well as a verbal noun, and they developed a new periphrastic *-gā* future, so that the old verbal adjective has left no trace in the standard modern stage of these languages. But on the whole, more languages still display the infinitive more than any other tense or modal form derived from the old *-tvaya* verbal adjective. This can be seen as an indication that the basic meaning of the form was more nominal than verbal (or modal).

4.4 Original meaning of the so-called obligation gerund

A last piece of evidence for the remarkable persistence of the nominal meaning associated with the *-tavya* form in New Indo-Aryan comes from Romani, a language separated from West-central IA in the beginning of the 2nd millennium. In all Romani dialects, the infinitive is notoriously absent as in most languages of the Balkans (cf. Boretzky 1996). While an infinitive form has been created out of contact with various local languages, the old *-tavya* form was however maintained as a noun of action in *-iben*, which is the only suffix for deverbal and deadjectival abstract nouns in the South Balkan dialects. For instance, the noun referring to a beverage, that is, something worth drinking, is *zspiben*, from the verbal IA root *pi* 'drink' (cf. Beniśek 2010). Similarly, in most Romani dialects, deverbal abstracts end in *-iben*,[21] a formation parallel to the other gerundival suffix *-niya/ñya* 'able to', 'worthy of' which also produces deverbal abstracts such as the noun *pāj* 'drink' (common Romani). These various evolutions cast doubt on the

---

[20]Panjabi's founding texts (*Guru Granth Sahib*) displays a mixture of Sant Bhasha texts, many from Kabir and early Panjabi still not much differentiated from other dialects of what will become the Hindi language later. Although associated to Fariduddin Ganjshakar (13th ct.), the rise of Panjabi as distinct from various neighboring 'Old Hindi' dialects occurs only later. As for Hindi/Urdu, recent under these names, their earlier forms are regional languages from Braj to Awadhi.

[21]Deadjectival abstracts usually end in *-ipen*, a suffix inherited from the IA form *-pan*, and many dialects present a merger of the two forms.

supposedly original meaning of the gerund, considered by Chatterji (1926: 966) to have developed "side by side" from obligation into infinitive and future.[22] Far more plausible from a typological perspective is the evolution from verbal noun to modal and future. Going back to the origin of the *-tavya* form in Old Indo-Aryan, this form is itself derived from the verbal noun in *-tu*, the same which in the accusative was used throughout Classical Sanskrit as an infinitive (*-tum*) and maintained in Marathi with the *-un* infinitive ending (*-idum* > Maharashtri *-iuṃ* > Mod. Marathi *-un*). In the dative case, *-tave*, the form was also used as an infinitive (*-tave* > MIA *-tae*, > Ardhamagadhi *-ttae*). This *-tave* verbal noun could also accept the gerundival suffix *-ya* (cf. Debrunner 1954: 612–615), which only later specialized in necessity constructions while the other gerundive occurring on the *-ana* nouns of action (*-anlya*) tended to be lexicalized (cf. Bubenik 1998: 190). It is also worth mentioning that the nominalising (deadjectival) suffix *-pan*, still used in NIA languages, is also supposed to derive from a gerundive ending *-tva* (Tagare 1948), suffixed with *-an* (*-tvana* > *-pan*). This suffix is very productive and is either directly suffixed to the base (such as in *bac.pan* 'childhood' < *baccā* 'child') or to the oblique or direct form of the adjective (such as in *akele.pan* or *akelā.pan* 'solitude' < *akel*ā 'alone, lonely'). Not surprisingly, it occurs in Classical Sanskrit as a postpositional NP, patterning exactly like (43a):

(44) *na   ayam vaktavya.sya   kālaḥ*
      NEG this   speak-*tavya*.GEN time

      'It is not the time of speaking.' (from *Panchatantra*, in (Bloch 1970[1920]: 278)

The Latin data leads to similar questions regarding the original meaning of the verbal adjective or gerund of necessity in *-nd-*. Whereas the well-known construction with copula and possible agent in the dative mentioned in §3.2 has always a necessity reading, conveying both passive voice and obligation, the form itself seems to be more general in meaning. This conclusion was first formulated by Ernout & Thomas (1951: 285): "il exprime simplement l'idée verbale", then developed by Touratier (1994: 164ff) who insists that the construction, not the form, conveys the meaning of necessity in predications with the verb 'be', with an optional dative agent (45a). Used as an attribute the *-nd-* verbal adjective obtains a vaguely abilitative meaning like the *-able* suffix (*orator legendus* 'an orator worth reading', 'a readable orator'), but it is mostly used, in Touratier's

---

[22]"The simple future notion evolved gradually; side by side with it, the old notion of an action to be done continued, and was modified into simply the notion of an act".

words, "merely as an infinitive" since the beginning of the common era, devoid of any modal meaning (45b):

(45) a. Latin
  consola-nd-us   *hic*   *mih-ist*   *(= mihi est)*
  console-*nd*-NOM.M.SG this.NOM.M.SG 1SG.DAT-be.3M.SG
  'I have to console him.' (= he is to be consoled to me) (Plautus, in Touratier 1994: 165)

  b. *de*   *consilio*   *relique-nd-i*   *Italiam*
   about decision.ABL leave-*nd*-GEN Italy.ACC
   'Regarding my project of leaving Italy.' (Cicero from Touratier 1994: 165)

In non-predicative constructions, the *-nd-* gerund is clearly devoid of obligation, a meaning which grammaticalized only in predicative constructions with the verb 'be'. Countless formations attest to this nominal behaviour, particularly its use as genitive complements, from the well-known *Ars ama.ndi* ('art of loving') to the three *libidines* ('desires') stigmatized by Augustinus (*libido domina.ndi, scie.ndi, frue.ndi* 'desire of domination, knowledge, enjoyment'). The difference with the Indo-Aryan evolution is that a further development into a standard infinitive never took place, because of the preservation of the inherited infinitive in *-re* throughout Classical and Vulgar Latin, still present in modern Romance languages. As a result, the gerund form disappeared altogether in Romance languages. But its initial meaning of expressing a mere verbal notion, common to both Old IA and Latin, nicely accounts for the various grammaticalization paths of this 'gerund', richly illustrated in NIA and also in various stages of Latin (though not in modern Romance languages).

5 Conclusions

Regarding the grammaticalization paths of TAM-markers, the various developments in Indo-Aryan do not neatly mirror areal sub-classification, neither in meaning nor in form. Two pure tense markers, *-l-* for past and *-b-* for future, were the Eastern outcome of the grammaticalization of the past passive participle and the gerund, respectively. Except for the Marathi *-l-* past, none of these occur in Western languages in these functions. As for the meaning, the development of definite past out of the old resultative participle is omnipresent, whereas the development of the gerund into future is limited to the Eastern group, and its

development into a modal predicate (*-av-*) is restricted to Marathi. Both developments contrast strikingly with the Latin-Romance data. In the latter languages, the perfect of comparable origin remained tense-wise a perfect (only recently encroaching on the definite past domain in spoken French). This is because of the copula being present right from the initial step, but even more because of the resilience of the old aorist. The omnipresence of the 'have' future based on a modal predication also differs from the restricted development of future in IA, even though it is of comparable origin: the resilience of the old future in the West IA accounts for its limited development in IA as a whole, whereas the Latin future disappeared in all Romance languages. Similarly, the development of the gerund form into an infinitive was apparently inhibited by the persistence of the old infinitive throughout Romance, a form which was lost. By contrast, the loss of the infinitive in all IA languages, except Marathi, allowed for an extensive development of the gerund into verbal noun and infinitive. The blocking effect of existing forms in the same function has obviously been decisive, and the co-existence of old and new forms, for instance for IA infinitives, usually corresponds to a specialization (i.e. one of them behaving more like a noun, the other more like a verb). As for the various alignment shifts, which show an areal distribution in IA, in contrast to the Romance uniform realignment in nominative patterns, they can be better understood by taking into account all the correlated patterns. Labelling the original nominal sentence with instrumental agent 'preergative', because of its further developments in the West, has been shown to be misleading. It is also misleading as it masks relevant correlations with both intransitive predicates and modal-future meanings which prevailed throughout IA up to the 15th century. As to why the Eastern non-nominative perfect realigned with nominative agent (and not the Western one), a possible answer lies in the parallel realignment of future clauses. I consider this explanation more plausible than contact with Dravidian as suggested by Chatterji (1926). Once the future meaning wiped out the modal one, the upgrading of the agent to a nominative subject is expected. Note in this respect that ergative alignment in the future is not common in languages with nominative alignment in the present. Since both past and future constructions pattern alike, both were simultaneously realigned, unlike what we find in West IA. The formerly instrumental subject of obligation sentences shifting to dative may be correlated with the dative subject sentences. The latter construction gained ground in the 15th-17th century with experiential predicates, and was extended to obligation constructions, once the formal link with the old form in *-av-* was lost. The old case pattern prevailed only in Marathi and Gujarati, which kept the *-av-* predicate and an *-av-* infini-

tive, respectively. Finally, one may wonder why the two forms studied changed in meaning and category so dissimilarly: whereas the PPP became a definite past everywhere, the gerund grammaticalized into future, deontic modality, verbal noun and infinitive. In the case of the former, as a resultative participle it initially foregrounded the result of an action, while the implicature of the underlying process was later conventionalized. The latter form originally simply conveyed verbal meaning, there is no such unique implicature associated. Thus, the construction shows different developments depending on its function: it is interpreted as an intended action if used predicatively (Eastern IA languages), or as a verbal noun if used non-predicatively. Here again, Marathi is an exception: it is the only regional language not having (had) the non-predicative use, and the only Western IA language to have maintained the predicative modal meaning, which calls for an explanation. Emphasizing its conservative character by pointing to the preservation of the old infinitive and of the three-gender system does not make much sense, in view of the neighbouring Gujarati also maintaining three genders. Social factors may provide an explanation, given the historical, self-claimed cultural Marathi specificity. The texts forming the active basis of this cultural heritage should be analysed with this in mind, in the same way as the bulk of literature decisive for the formation of Hindi/Urdu, another exception since they just lost the -*v*- form.

References

Adams, James Noel. 2011. Late Latin. In J. Clackson (ed.), *A companion to the Latin language*, 257–283. London: Wiley-Blackwell. Chapter 16.

Adams, James Noel. 2013. *Social variations and the Latin language*. Cambridge: Cambridge University Press.

Beniśek, Michael. 2010. The quest for a Romani infinitive. *Romani Studies* 5–20(1). 47–86.

Benveniste, Emile. 1966[1952]. La construction passive du parfait transitif. In Emile Benveniste (ed.), *Problèmes de linguistique générale*, vol. 1, 176–186. Paris: Gallimard.

Benveniste, Emile. 1966[1965]. Les transformations des catégories grammaticales. In Emile Benveniste (ed.), *Problèmes de linguistique générale*, vol. 2, 127–136. Paris: Gallimard.

Benveniste, Emile. 1952. La construction passive du parfait transitif. In Emile Benveniste (ed.), *Problèmes de linguistique générale*, vol. 1, 176–186. Paris: Gallimard. re-edited in 1966.

Benveniste, Emile. 1960. *Etre* et *avoir* dans leurs fonctions linguistiques. In Emile Benveniste (ed.), *Problèmes de linguistique générale*, vol. 1, 187–207. Paris: Gallimard.

Bloch, Jules. 1970[1920]. *The formation of the Marathi language*. Delhi: Motilal Banarsidass. originally published in French *La formation de la langue marathe]*.

Bloch, Jules. 1906. *La phrase nominale en sanscrit*. Paris: Champion.

Boretzky, Norbert. 1996. The 'new' infinitive in Romani. *Journal of the Gypsy Lore Society* 6(1). 1–51.

Bourova, Viara & Liliane Tasmowski. 2007. La préhistoire des futurs romans — ordre des constituants et sémantique. *Cahiers Chronos* 19. 25–41.

Breunis, Andries. 1990. *The nominal sentence in Sanskrit and Middle Indo-Aryan*. Leiden: Brill.

Bubenik, Vit. 1998. *A historical syntax of Late Indo-Aryan (Apabhraṃśa)*. Amsterdam: Benjamins.

Bubenik, Vit & Chitra Paranjape. 1996. Development of pronominal systems from Apabhramsha to New Indo-Aryan. *Indo-Iranian Journal* 39. 11–32.

Bybee, Joan L. 2003. Mechanisms of change in grammaticization: The role of frequency. In Brian D. Joseph & Richard D. Janda (eds.), *The handbook of historical linguistics*, 602–623. Oxford: Blackwell.

Bybee, Joan L., Revere D. Perkins & William Pagliuca. 1994. *The evolution of grammar: Tense, aspect, and modality in the languages of the world*. Chicago: University of Chicago Press.

Cardona, George & Babu Suthar. 2003. Gujarati. In George Cardona & Danesh Jain (eds.), *The Indo-Aryan languages*, 658–697. London: Routledge.

Cardona, George. 1970. The Indo-Iranian construction *mana* (*mama*) *krtam*. *Language* 46. 1–12.

Chatak, Govind. 1966. *Madhyapahari ka bhashashastrîa adhyayan*. Delhi: Radhakrishna Press.

Chatterji, Suniti Kumar. 1926. *The evolution of Bengali language*. Delhi: Rupa.

Chatterji, Suniti Kumar. 1986. *The evolution of Bengali language. Vol. 3: Revision and additions*. Delhi: Rupa.

Dave, Trimbaklal N. 1935. *A study of the Gujarāti language in the 16th century (v. S.) with special reference to MS Balavabodha to Upadeśmala (Suri)*. London: Royal Asiatic Society. http://www.sudoc.abes.fr/DB=2.1/SET=3/TTL=1/CLK?IKT=1016/&TRM.

Davison, Alice. 2002. Agreement features and projections of tense and aspect. In Rajendra Singh (ed.), *Yearbook of South Asian languages and linguistics*, 27–57. Delhi: Sage.

Debrunner, Albert. 1954. *Altindische Grammatik*. Vol. II, 2. Göttingen: Vandenhoek und Ruprecht.

Desai, Mohan. 1926. *Jain Gurjar Kavyo*. Bombay: Jain Svetambar Conference Office.

Dhongde, Ramesh V. & Kashi Wali. 2009. *Marathi*. London: Benjamins.

Ernout, Ernest & François Thomas. 1951. *Syntaxe Latine*. Paris: Klincksieck.

Goswami, Golokchandra C. & Jyotiprakash Tamuli. 2003. Assamese. In George Cardona & Danesh Jain (eds.), *The Indo-Aryan languages*, 411–443. London: Routledge.

Grierson, George A. 1903–1928. *Linguistic survey of India, Delhi (reprint)*. Delhi: Motilal Banarsidass.

Haspelmath, Martin & Andrea D. Sims. 2010. *Understanding morphology. 2nd edition*. London: Hodder Education.

Heine, Bernd & Tania Kuteva. 2002. *World lexicon of grammaticalization*. Cambridge: Cambridge University Press.

Hock, Hans Heinrich. 1992. *Studies in Sanskrit syntax*. Delhi: Motilal Banarsidass.

Hopper, Paul J. & Elizabeth C. Traugott. 2003. *Grammaticalization*. Cambridge: Cambridge University Press.

Jaiswal, Mahesh Prasad. 1962. *A linguistic study of Bundeli*. Leiden: Brill.

Jha, Subhadra. 1985[1958]. *The formation of the Maithili language*. Delhi: Manoharlal.

Jha, Subhadra. 1958. *The formation of the Maithili language*. Delhi: Manoharlal.

Kachru, Yamuna. 1987. Ergativity, subjecthood and topicality. *Lingua* 71. 223–238.

Kellogg, Samuel. 1972[1875]. *A grammar of the Hindi language*. Delhi: Oriental Book Reprints.

Khokhlova, Liudmila. 2013. Obligational constructions in New Indo-Aryan languages of Western India. *Lingua Posnaniensis* IV(2). 91–107.

Kuryłowicz, Jerzy. 1931[1960]. *Les Temps composés du roman*. Kraków. re-ed. In Esquisses linguistiques, 1960, 104–108.

Kuryłowicz, Jerzy. 1965. The evolution of grammatical categories. *Diogène* 51. 51–71.

Malchukov, Andrej L. & Andrew Spencer. 2009. *The Oxford handbook of case*. Oxford: Oxford University Press.

Mistry, P. J. 1997. Objecthood and specificity in Gujarati. In Jane Hill, P. J. Mistry & Lyle Campbell (eds.), *The life of language*, 425–442. Berlin: Mouton de Gruyter.

Montaut, Annie. 1996. L'évolution des systèmes perfectal et futur en indo-aryen occidental et oriental. *Journal Asiatique* 284.2. 325–360.

Montaut, Annie. 1997. Benveniste et Kuryłowicz: Deux méthodes, deux trouvailles sur le système aspecto-temporel. N° spécial: Emile Benveniste vingt ans après. C. Normand (ed.) *Linx* 9. 337–353. http://linx.revues.org/1080.

Montaut, Annie. 2004. Oblique main arguments in Hindi as localizing predications. In P. Bhaskararao & K. V. Subbarao (eds.), *Non-nominative subjects*, 33–56. Amsterdam: Benjamins.

Montaut, Annie. 2007. The evolution of the tense-aspect system in Hindi/Urdu: The status of the ergative alignment. In Miriam Butt & Tracy Holloway King (eds.), *Proceedings of the LFG06 Conference.* Stanford: CSLI. Online Publications.

Montaut, Annie. 2015. The verbal form V-*â* in Hindi/Urdu: An aorist with "aoristic meanings". In Zlatka Guentchéva (ed.), *Aspectuality and temporality. Empiric and theoretical issues.* 413–447. Amsterdam: Benjamins.

Montaut, Annie. 2016. Why the ergative case in modal (in)transitive sentences the historical evolution of aspect and modality in Indo-Aryan. In Eystein Dahl & Krysztof Stronski (eds.), *Indo-Aryan ergativity in typological and diachronic perspective* (TSL 112), 135–167. Amsterdam: Benjamins.

Pandharipande, Rasjeshari. 1997. *A grammar of the Marathi language.* London: Routledge.

Pandit, Prabodh Bechardas. 1976. *A study of the Gujarati language in the 14th century with special reference to a critical edition of Ṣaḍāvaśyakabālāvabodhavṛtti of Taruṇaprabha.* Bombay: Bharatiya Vidya Bhavan. http://www.sudoc.abes.fr/DB=2.1/SET=2/TTL=1/CLK?IKT=1016&TRM=.

Peterson, John. 1998. *Grammatical relations in Pali and the emergence of ergativity in Indo-Aryan.* München: Lincom Europa.

Pirejko, Lija A. 1979. On the Genesis of ergative construction in Indo-Iranian. In F. Plank (ed.), *Ergativity: Towards a theory of grammatical relations*, 481–488. London: Academic Press.

Pischel, Richard. 1971[1900]. *A grammar of the Prakrit languages.* Delhi: Motilal Banarsidass. [originally publ. in German Grammatik der Prakrit-Sprachen, Strassburg, K. J. Trübner].

Renou, Louis. 1952. *Grammaire de la langue védique.* Lyon: IAC.

Saxena, Ram Baburam. 1937. *Evolution of Awadhi. Delhi [1971 reprint].* Delhi: Motilal Banarsidass.

Seržant, Ilja A. 2012. The so-called possessive perfect in North Russian and the Circum-Baltic area: A diachronic and areal approach. *Lingua* 122. 356–385.

Snell, Rupert. 1991. *The Hindi classical tradition: A Braj Bhasha reader.* London: SOAS.

Stroński, Kryzstof. 2010. Variations of ergativity patterns in Indo-Aryan. *Poznan Studies in Contemporary Linguistics* 46(2). 237–253.

Stroński, Kryzstof. 2014. On the syntax and semantics of the past participle and gerundive in early New-Aryan. Evidence from Pahari. *Folia Linguistica Historica* 35. 275–305.

Tagare, Gajanan V. 1948. *Historical grammar of Apabhramsha*. Poona: Deccan College.

Tessitori, Luigi. 1914–1916. Notes on the grammar of the old Western rajasthani, with special reference to apabhramsha and to gujarati and marwari. *Indian Antiquary* 42–44.

Tiwari, Uday N. 1966. *The development of Bhojpuri* (The Asiatic Society X). Calcutta: The Asiatic Society.

Tiwari, Uday N. 1961. *Hindi Bhasha ka udgam aur uska vikas*. Prayag: Bharati Bhandar.

Touratier, Christian. 1994. *Syntaxe Latine*. Louvain: Peeters.

Trask, Robert L. 1979. On the origins of ergativity. In Franz Plank (ed.), *Ergativity: Towards a theory of grammatical relations*, 385–404. London: Academic Press.

Trumpp, Ernst. 1872. *Grammar of the Sindhi language*. London-Leipzig.

Tunga, Sudamsu Shekhara. 1995. *Bengali and other dialects of South Assam*.

Wali, Kashi. 2004. Non-nominative subjects in Marathi. In Peri Bhaskararao & Karumuri V. Subbarao (eds.), *Non-nominative subjects*, 223–252. Amsterdam: Benjamins.