Ergative as Perfective Oblique[*]
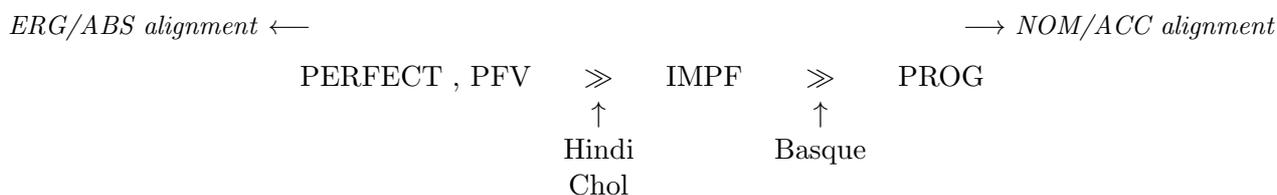
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1 Introduction

Ergative systems often exhibit **splits** in alignment.

- Such splits are often based on **viewpoint aspect** (Silverstein, 1976; Moravcsik, 1978; Dixon, 1979).

- The direction of aspectual splits is consistent across languages:

  - Perfective (and perfect) aspect is associated with ergative alignment.

  - Imperfective (or progressive) aspect is associated with "accusative" alignment.

- This defines a hierarchy along which different languages make splits at different points:

ERG/ABS alignment ⟵   ⟶ *NOM/ACC alignment*

$$\text{PERFECT , PFV} \quad \gg \quad \text{IMPF} \quad \gg \quad \text{PROG}$$

                     ↑   ↑

                 Hindi   Basque

                 Chol

The puzzle: What accounts for the existence of aspectual splits, and for their consistent direction?

Two broad families of (syntactic) explanations:

1. The **imperfective** is special (Laka, 2006; Coon, 2010, 2013a)

   - Ergative alignment is an independent property of a language's case and/or agreement system.

   - This alignment is visible in the perfective, but is disrupted by the syntax of the imperfective.

2. The **perfective** is special (Mahajan, 1997, 2012; Anand and Nevins, 2006)

   - The basic alignment of languages with aspectual splits is accusative (or at least not ergative).

   - Perfective clauses contain a special source for ergative case, a source that is not present in the imperfective.

Goal today: Argue that in at least some languages, ergative case is directly licensed by perfective aspect (Asp^0_{perf}) .

Focusing on aspectual split found in **Hindi-Urdu**.

Advantage: this unifies aspectual splits with a broader typology of perfective morphosyntax.

Disadvantage: the result is a non-unified picture of aspectual splits, and of ergativity more generally.

Plan for the talk:

2. Background on the aspectual split in Hindi-Urdu.

3. Preview of the analysis.

4. Comparative evidence for the proposal.

5. Detailed discussion of the analysis.

6. Against a "marked imperfective" approach to aspectual splits.

7. Conclusion.

2 Ergativity in Hindi-Urdu

The empirical focus of this talk is the aspectual split in Hindi-Urdu.

Basic Alignment Split:

- The ergative marker *-ne* appears on subjects only in the perfective and the perfect.

(1)   a.   Raam-ne Ravii-ko   piiṭ-aa.
            Ram-ERG Ravii-OBJ beat-M.SG(PFV)
            "Ram beat Ravi."
       b.   Raam-ne Ravii-ko   piiṭ-aa   hai.
            Ram-ERG Ravii-OBJ beat-M.SG(PFV) BE.PRES.3SG
            "Ram has beaten Ravi."   *(Mohanan, 1994, 70)*

- In the imperfective the subject has no overt case marking. This null case is variously referred to as "nominative" or "absolutive" (the latter because non-specific inanimate objects are similarly bare). Here I leave it unglossed.

(2)   Raam Ravii-ko piiṭt-aa   hai
      Raam Ravi-OBJ beat-IMPF-M.SG BE.PRES.3SG
      "Raam used to read those books."   *(Mohanan, 1994, 70)*

"Split Intransitive"

Hindi-Urdu has a "split intransitive" system in the perfective (a variant of "active alignment"), which is crucial to the proposal to be developed here.

- Subjects of some intransitive verbs (∼unaccusatives) *cannot* be marked ergative:

(3)　Unaccusative verb = Bare (NOM/ABS) Subject

  a. Raam gir-aa
    Ram fall-M.SG(PFV)
    "Ram fell."
  b. Raam-ne gir-aa   *(Mohanan, 1994, 71)*

- Subjects of other intransitive verbs (∼unergatives) *require* ergative marking in the perfective:

(4)　Unergative verb = Ergative Subject

  a. Raam-ne nahaa-yaa
    Ram-ERG bathe-M.SG(PFV)
    "Ram bathed."
  b. *Raam nahaa-yaa   *(Mohanan, 1994, 71)*

- For a small number of intransitive verbs, ergative marking is optional, but triggers an agentive interpretation of the subject:

(5)　Optional Ergative = Correlation with Agentivity

  a. Raam-ko acaanak šer dikh-aa.   vah / *us-ne cillaa-yaa
    Ram-DAT suddenly lion.NOM appear-M.SG(PFV) he.NOM/*he-ERG scream-M.SG(PFV)
    "Ram suddenly saw a lion. He screamed."
  b. us-ne / *vah jaan buujhkar cillaa-yaa
    he-ERG/*he.NOM deliberately shout-M.SG(PFV)
    "He shouted deliberately."   *(Mohanan, 1994, 71)*

A Note on Agreement:

- Finite agreement in Hindi-Urdu is uniformly with the structurally highest nominative/absolutive (i.e. bare) DP.

- In the absence of any such DP, the verb appears with third-person singular masculine agreement morphology.

- This agreement pattern is complicated by the existence of Differential Object Marking (DOM) on specific animate direct objects (Mohanan, 1994; Bhatt and Anagnostopoulou, 1996). Not being bare, DOM-marked objects do not trigger agreement.[1]

- This talk will not directly address the question of why finite agreement targets only "unmarked" DPs, though we will return briefly to the question of whether this is a syntactic or a morphological constraint.

3　Preview: Perfective aspect as a source for ergative case

The basic idea: if ergative case appears only in the perfective, it should be linked to some syntactic element that also occurs only in the perfective.

- Work on the semantics of aspect widely assumes the presence of a dedicated projection Asp^0, e.g.: Tenny (1987); Smith (1991); Klein (1994); Giorgi and Pianesi (1997); Kratzer (1998); Kusumoto (1999); Demirdache and Uribe-Etxebarria (2000) (among many others).
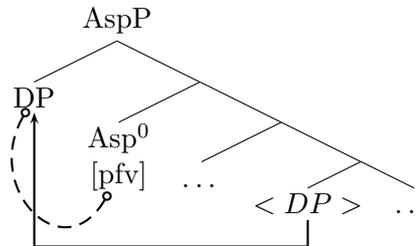
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[1]The mechanism underlying this assignment of specific marking to direct objects is not relevant here – the reader is referred to Aissen (2003) and subsequent work for more discussion of DOM cross-linguistically – what is relevant is that it can prevent object DPs from triggering agreement even in perfective transitive clauses.

- Less widely assumed in syntax, but a reasonable proposal for languages with a robust perfective/imperfective contrast in viewpoint aspect – like Hindi-Urdu.

Core of the proposal: ergative case in Hindi-Urdu is an oblique case assigned by Asp^0_{perf} to a DP that has moved into its specifier.

- Perfective Asp^0 – but not its imperfective counterpart – attracts a DP into its specifier, and licenses oblique case on this argument.
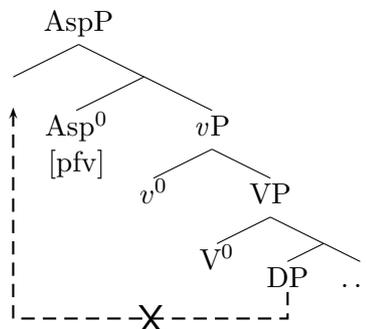
(6)

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                    AspP
                  /      \
               DP         \
                \          \
                  Asp^0     \
                  [pfv]   ...  \
                            < DP >   ...
```

- This proposal makes Asp^0_{perf} applicative-like: it assigns oblique a DP in its specifier, though it does not introduce that argument.

    Cf. proposal by Bjorkman and Cowper (2014) that the possessive modality construction in Hindi-Urdu (Bhatt, 1997) involves a similar applicative-like head.

- Ergative alignment arises due to a **locality** effect:

    - Asp^0_{perf} is not able to attract a DP from within VP.

    - Because internal argument DPs cannot be attracted to Spec-Asp, they are never assigned perfective-linked oblique, and so surface without overt case morphology:

(7)

```
                    AspP
                  /      \
               Asp^0      vP
               [pfv]     /  \
                       v^0    VP
                             /  \
                           V^0   DP   ...
```

Two central components of this analysis:

Next section: comparative evidence for two central claims of this analysis:

1. perfective aspect is able to license oblique subject case

2. the morphosyntactic expression of perfective aspect can be sensitive to transitivity.

Each of these properties occurs *independently* in the perfective in other languages.

3.1 Aside: perfective vs. perfect

Aspectual splits are determined by **viewpoint aspect**.

The 3-time model of temporal semantics: (Reichenbach, 1947, et seq.)

- Tense does not directly order the time of an event and the utterance/evaluation time, but instead locates an intermediate time: the "reference time" (Reichenbach, 1947) or "topic time" (Klein, 1992, 1994).

    - Present: TT overlaps with UT

    - Past: TT preceeds UT

- Aspect locates the time of an event relative to the topic time.

    Central contrast: **perfective** vs. **imperfective**.

    - Perfective: ET is contained within TT ("viewing the event as a whole")

    - Imperfective: TT is contained within ET ("viewing the event from within")

- Some languages morphologically distinguish **progressive** from general imperfective, viewed in the Reichenbachian system as a subtype of the imperfective.

The perfect: a wrench in the system

- General consensus that the perfect is not part of the basic viewpoint aspect system. (Iatridou et al., 2003; Alexiadou et al., 2003; Reed, 2011; Stowell, 2007, 2008; Pancheva, 2003; Pancheva and von Stechow, 2004, among many others)

- Much debate about the denotation of the perfect, but general agreement that it expresses anteriority of some kind:

    - Some suggest that the perfect introduces a fourth compositional time, and locates the TT prior to that (Pancheva and von Stechow, 2004), or that it involves a second layer of simple past (Stowell, 2007; Cowper, 2010).

    - Others suggest a somewhat more complex meaning for the perfect, involving the introduction of a Perfect Time *Span*, within which the TT is located (Iatridou et al., 2003; Pancheva, 2003; Reed, 2011)

- Whatever its denotation: **perfect ≠ perfective**

However...

- Many languages do not morphologically distinguish the two, and they are often related diachronically (Comrie, 1976; Bybee et al., 1994, a.o.).

- Though perfects in some languages can compose with other aspects (e.g. Bulgarian: Pancheva, 2003; English: *have been writing*), in others perfects are more rigidly associated with the perfective (e.g. Greek, Hindi-Urdu).

And further...

- Aspectual splits group perfects and perfectives together – no language (that I know of) exhibits ergativity in one but not in the other.

On this basis, in what follows I discuss perfects and perfectives together, occasionally using "perfective aspect" to refer to both.

- While the link between the two needs more attention, in the languages under discussion there is no viewpoint aspect alternation in the perfect, so that perfects are always perfective (morphologically, at least).

4 The (distributively) ergative typology of the perfective

As outlined in section 3: the proposal here is that aspectual splits can arise from the intersection of two independent properties of perfective aspect.

- licensing of oblique subject case.
- sensitivity to argument structure.

This section demonstrates that each of these properties is found independent of "ergative" alignment in perfective contexts in other languages:

- Languages with uniform oblique subject case in the perfective demonstrate that the source of this case cannot be uniquely ergative.
- Languages where the realization of the perfective auxiliary is sensitive to argument structure (i.e. auxiliary selection) demonstrate that the realization of perfective Asp^0 itself can be sensitive to argument structure.

4.1 Oblique subject case in the perfective

- If the syntax of perfective aspect is the source of aspectually split ergative, we expect in principle to find languages where the perfective is *uniformly* associated with oblique subject marking.
- Exactly this link between aspect and uniformly oblique subjects is what we find in so-called "possessive perfect" constructions in North Russian (Jung, 2011; Lavine, 2000; Timberlake, 1974) and Estonian (Lindström and Tragel, 2010), as well as in case marking patterns in the Kartvelian dialect of Mingrelian (Harris, 1985; Tuite, 1998).

Neither Estonian nor Russian exhibits a possessive verb HAVE, instead expressing possession with the verb BE together with oblique marking on the possessor.

Both North Russian varieties and contemporary Estonian have developed a perfect construction that resembles their respective predicative possession constructions.

(8) U menja est' kniga
     at me.GEN be.1SG book
     "I have a book."   *(North Russian: Jung, 2011, 2)*

(9) Mu-l on   uus auto.
     I-ADE BE.3SG new car
     "I have a new car."   *(Estonian: Lindström and Tragel, 2010, 374)*

Jung (2011) describes the relevant construction in North Russian varieties as involving dative case on the subject together with a passive participle verb form (the "-n/-t" participle).

(10) U lisicy   uneseno   kuročka.
      at fox.GEN carried-off-NO chicken.NOM.F
      "A fox has carried off a chicken."   *(Kuz'mina and Nemčenko, 1971, 27)*

- The oblique subject case appears not only with transitive verbs, but also with intransitives, regardless of argument structure.

(11) a. Eto u avtomobilja   ideno
          that at automobile.GEN gone.PTCP.N.SG
          "That was a car that went by."   *(Lavine, 2000, citing Matveenko 1961, 123)*

      b. U traktora   tut proexano.
          at tractor.GEN here passed.by.PTCP.N.SG
          "A tractor has passed by here."   *(Lavine, 2000, citing Kuznecov 1954, 96)*

- Jung presents evidence that this is a canonical subject: the genitive DP binds reflexive *svoj* 'own'; controls infinitival PRO; and allows parallelism with nominative subjects. In these respects it is unlike other genitive arguments (e.g. benefactives).

(12) a. U Šrki   privedeno   svoja staraja nevesta.
          at Šrka.GEN bring.PTCP.N.SG[own old fiancée].NOM.SG.F
          "Šrka has brought his own old fiancée."   *(Kuz'mina and Nemčenko, 1971, 35)*

      b. U babki   naverno [PRO kosit'   ujdeno   ].
          at grandma.GEN probably [mow.INF left.PTCP.N.SG
          "Grandma has probably left to mow."   *(Lavine, 2000, citing Matveenko 1961, 123)*

      c. U menja eto ne zakončeno,   no pojdu   poguljat'
          at me.GEN this not finished.PTCP.N.SGbut go.FUT.1SG take a walk.INF
          "I have not finished this but will go to take a walk."   *(Jung 2011, 115, citing Zh. Glushan p.c.)*

Similar facts are described for Estonian by Lindström and Tragel (2010), though they observe that the Estonian construction is at a relatively early stage of development.[2]

- The new possessive perfect in Estonian involves a subject in adessive case, and the auxiliary verb BE, as with the possessive sentence in (9), with a passive participle form of the main verb.

- With transitive verbs, as in (13a), the result is ambiguous between possessive and perfect interpretations, but with intransitive verbs the interpretation is unambiguously perfect.

(13) a. Mu-l on   auto pes-tud.
          I-ADE be.3SG car wash-PASS.PTCP
          'My car is/has been washed.'/'I have washed the car.'

      b. Mu-l on   juba maga-tud.
          I-ADE be.3SGalready sleep-PASS.PTCP
          'I have already slept.'   *(Lindström and Tragel, 2010, 381)*

Mingrelian (a dialect of Kartvelian) exhibits similar facts, but without the diachronic connection to possessive morphosyntax.

Harris (1985) and Tuite (1998) discuss the development of non-ergative alignment in the Mingrelian perfective.

- Other Kartvelian varieties exhibit aspectually split ergativity, the best-known case being Georgian. Ergative case appears on transitive and unergative subjects in "series II" contexts, a category that includes the perfective (="aorist").

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[2]Mark Norris (p.c.) reports that this construction in Estonian remains strongly limited to animate agentive subjects, another indication that it is not yet fully grammaticalized as a perfect construction. Unlike Russian, which has no other specifically perfect inflection or construction (Paslawska and Von Stechow, 2003), Estonian does have a pre-existing perfect, formed with the auxiliary BE and a past (non-passive) participle:

(i) Ma olen   kirjutanud ühte   raamatut
     I   BE.1SG write.PTCP one.GEN book.GEN
     "I have written a book."   (Viitso, 2003, 62)

- Mingrelian, by contrast, has lost ergative alignment in the perfective, with the historical ergative marker now appearing on all subjects in perfective contexts, regardless of argument structure:

  > "The rule for assigning ERG case in Mingrelian can be summed up as follows: Any constituent that is assigned NOM case in series I (whatever its grammatical role might be) is assigned ERG case in series II." (Tuite 1998, 205)

- This can be seen in the contrast between (14) and (15), all from . The subjects of the series II verbs in (14) are uniformly "ergative", while the subjects of the corresponding series I verbs in (15) are uniformly nominative.

(14) a. k'oč-k doɣuru
     man-ERG die.II.3SG(SUBJ)
     "The man died."

   b. ʒɣabi-k (ko)szap'u
     girl-ERG dance.II.3SG(SUBJ)
     "The girl danced."

   c. muma-k cxen-i (ki)meč256u skua-s
     father-ERG horse-NOM give.II.3SG(SUBJ).3SG(OBJ).3SG(IO) child-DAT
     "The father gave a horse to the child."

(15) a. k̇oč-i ɣuru
     man-NOM die.I.3SG(SUBJ)
     "The man dies."

   b. ʒɣab-i tli dɣas mušens
     girl-NOM whole day work.I.3SG(SUBJ)
     "The girl works all day."

   c. muma arʒens cxen-s skua-s
     father.NOM give.I.3SG(SUBJ).3SG(OBJ).3SG(IO) horse-DAT child-DAT
     "The father gives a horse to his child."   *(Harris, 1985, 55-56)*

In sum:

- The existence of languages where perfective or perfect aspect is uniformly associated with oblique subject marking suggests that aspectual syntax – specifically perfective syntax – can directly control the case assigned to the subject.

- If perfective Asp^0 can license oblique subject case in these languages, moreover, it is also a potential source for "oblique" ergative in languages with aspectually split ergativity—assuming that an explanation can be found for why this oblique case is only available to external arguments.[3]

4.2   Argument structure sensitivity in the perfective

- Auxiliary selection refers to the alternation between auxiliary HAVE and auxiliary BE in some Germanic and Romance periphrastic perfect constructions.

  This is an extremely well-documented case where the morphosyntax of perfective aspect is sensitive to argument structure (Perlmutter, 1978, et seq.).

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[3]This point is made with respect to the North Russian facts by Jung (2011) and Lavine (2000).

Basic facts of auxiliary selection:

- In standard varieties of Dutch, German, Italian, and French, the alternation has been described as primarily tracking argument structure: transitive and unergative verbs require auxiliary HAVE, while unaccusative verbs require BE. (16) illustrates this with examples from Italian.

(16) a. Ha   trovato   quel libro
          HAVE.3SG find.PTCP that book
          "S/he has found that book."
      b. Ha   suonato.
          HAVE.3SG play.PTCP
          "S/he has played."
      c. È   andata
          BE.3SG gone.PTCP.F
          "She has (lit. 'is') gone."

- Mahajan (1997) first noted the similarities between the aspectual split in Hindi-Urdu and auxiliary selection: the environments that require auxiliary HAVE are precisely those that involve ergative alignment in Hindi-Urdu.

Further "Exceptional" Parallels

The parallels between auxiliary selection and aspectual splits continue into what are often regarded as exceptions to this core pattern.

- In Hindi-Urdu, for example, some intransitive verbs show mixed behaviour, allowing ergative case when their subject is interpreted agentively, as was shown in (5) (repeated here):

(5)   Optional Ergative = Correlation with Agentivity
      a. Raam-ko acaanak šer   dikhaa.   vah   / *us-ne cillaayaa
          Ram-DAT suddenly lion.NOM appear-PFV he.NOM he-ERG scream-PFV
          "Ram suddenly saw a lion. He screamed."
      b. us-ne   / *vah   jaan buujhkar cillaayaa
          he-ERG he.NOM deliberately   shout-PFV
          "He shouted deliberately."   (Mohanan, 1994, 71)

- Sorace (2000, 2004) describes a similar correlation with agentivity for some classes of intransitive verbs, particularly in Italian.

  In each case, agentive subjects are associated with a preference for *avere* (HAVE), and non-agentive or inanimate subjects with a preference for *essere* (BE).

(17) Verbs expressing continuation of a state
      a. La guerra e / ?ha durato a   lungo
          the war   is / has lasted for long
          "The war lasted a long time."
      b. Il   presidente e / ha durato in carica due anni
          the president is / has lasted in post   two years
          "The presidentlasted in post for two years."   (Sorace, 2000, 867-8)

(18) Verbs expressing controlled affecting processes
      a. Maria ha / *e ceduta alle tue   insistenze
          Maria has / is yielded to   your pressure
          "Mariayielded to your pressure."

b. Il pavimento ha / ?e ceduto all'improvviso
the floor has / is yielded suddenly
"The floor suddenlyyielded.'
(Sorace, 2000, 875)

(19) Verbs expressing controlled motional processes

    a. Il pilota ha / ?e atterrato sulla pista di emergenza
the pilot has / is landed on the runway of emergency
"The pilot landed on the emergency runway."

    b. L'aereo e / ?ha atterrato sulla pista di emergenza
the plane is / has landed on the runway of emergency
"The plane landed on the emergency runway."
(Sorace, 2000, 876)

(20) Verbs expressing nonvolitional processes

    a. La fede religiosa ha tentennato / ??e tentenna taanche nei piu forti
the faith religious has wavered / is wavered even in the strongest
"The religious faith wavered even in the strongest people."

    b. Paolo ha tentennato / *e tentennatoa lungo prima di decidersi
Paolo has wavered / is wavered for long before of decide-self
"Paolo wavered for a long time before he made up his mind."
(Sorace, 2000, 877)

- Another exceptional case in Hindi-Urdu involves a small class of transitive predicates that idiosyncratically allow non-ergative subjects in the perfective: *bhuulna* 'forget' and *laanaa* 'bring', as well as *samajhnaa* 'understand', which shows optional ergativity (Keine, 2007).

(21)   a. Raam šiišaa laayaa
Ram mirror bring.PFV
"Ram brought the mirror."

    b. *Raam-ne šiišaa laayaa
(Mohanan, 1994, 72)

- Again, we find a similar exception in auxiliary selection, this time in Dutch, where a small class of transitive verbs (optionally) allow auxiliary *zijn* (BE) rather than *hebben* (HAVE). These verbs include *naderen* 'approach'; *volgen* 'follow'; *passeren* 'pass'; *verliezen* 'lose'; and (perhaps most strikingly) *vergeten* 'forget' (Lieber and Baayen, 1997, 810-1).

(22)   a. Ik heb mihn sleutels verloren
I have my keys lost
"I've lost my keys."

    b. Ik ben mihn sleutels verloren
I am my keys lost
"I've lost my keys."
(Lieber and Baayen, 1997, 811)

- Finally, Bhatt (2007) mentions a dialect of Maṛathi, Gowari, in which the aspectual split is further conditioned by a person split. Person splits are well known in the literature on ergativity, but what is interesting about Gowari is that the person split occurs only in perfective contexts.

In Standard Maṛathi, only 3rd person arguments show overt ergative marking. 1st and 2nd person pronouns are not overtly marked, but nonetheless fail to trigger agreement (i.e. they behave as though they bear oblique case).

In Gowari, by contrast, unmarked 1st and 2nd person arguments trigger agreement in otherwise-ergative contexts, while the overtly ergative 3rd person does not:

(23)   a. **mī̄** devā-javaḷ tudjyaa-sāmne pāp **ke-lo**.
1SG.NOM God-near you-in.front.of sin.NEU.SG do-M.1SG.PAST

"I committed a sin near God and in front of you."

    b. mag **tyā-n** baapā-lā uttar **di-lan**.
        then 3-ERG.SG father-DAT.SG answer.NEU.NOM.SG give-NEU.3SG.PAST
        "Then he gave an answer to his father."

- Subject person and number are also a well-known determinant of auxiliary selection in Italian dialects.

  A wide variety of patterns are attested, but in some dialects the distribution of HAVE mirrors the distribution of ergative in Gowari. In Abruzze, for example, the perfect auxiliary is uniformly BE in the first or second person, but is determined by the argument structure of the predicate in the third person (Manzini and Savoia, 2007, citing Loporcaro, 1999; Kayne, 1993, citing Loporcaro, 1989).

(24)   Colledimacina (Abruzzi) (Manzini and Savoia, 2007, 206-7, ex. 22)

    a. so mə'nuːtə
        be.PRES.1SG come
        "I have come."

    b. ʎə so ca'maːtə
        him be.PRES.1SG called
        "I have called him."

    c. e mə'nuːtə
        be.PRES.3SG come
        "He has come."

    d. ʎə **a** ca'maːtə
        him **have.pres.1sg** come
        "He has called him."

In sum:

- The parallels between auxiliary selection and the Hindi-Urdu aspectual split go even beyond what was noted by Mahajan (1997).

- The fact that auxiliary HAVE occurs only in the perfective, and can in some languages co-occur with passive BE, argues in favour of linking HAVE directly to an aspectual head – i.e. perfective Asp^0.

  This is contra many other proposals, including Hoekstra (1984), Kayne (1993), Den Dikken (1994), among others, who all link HAVE more directly to the licensing of external arguments.

- What auxiliary selection demonstrates is that the morphological realization of Asp^0 can be sensitive to argument structure, despite it being higher than the v^0 domain.

4.3   Ergativity as the intersection of two independent patterns

What we've seen is that there are two ways of expressing perfective morphosyntax that each make up half of an aspectually split ergative system.

From this perspective, ergative case Hindi-Urdu completes the typology of expected ways of expressing perfective aspect.
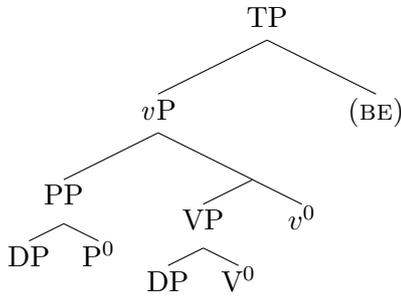
		Perfective Morphosyntax	
		Aux HAVE	"Oblique" Subject
Distribution	Uniform	*English, Spanish*	*Estonian, North Russian, Mingrelian*
	Only with Ext. Arg.	*Italian, Dutch*	**Hindi-Urdu**

This unification is possible **only** if ergative is seen as the result of perfectivity – not if ergativity is suppressed by the imperfective.

These connections have been separately noted before, in proposals that have linked aspectually split ergativity to Kayne (1993)'s structure for possession:

- Kayne (1993) proposes an analysis of HAVE in both possession and auxiliary selection in which a prepositional element licenses the possessor/external argument, and then incorporates to BE yielding HAVE.[4]

- Jung (2011) proposes an underlying structure the "possessive perfect" construction in North Russian similarly based on Kayne's structure for possession, and explicitly suggests it be extended to account for ergative case assignment.

- Mahajan (1997) proposes that the Hindi-Urdu ergative marker *-ne* is a realization of this same prepositional element, generated as the sister of the subject.

(25)   Mahajan (1997): *underlying structure of transitive perfective*

$$\begin{array}{c} \text{TP} \\ \diagup \diagdown \\ v\text{P} \qquad (\text{BE}) \\ \diagup \diagdown \\ \text{PP} \qquad \diagup \diagdown \\ \diagup \diagdown \quad \text{VP} \quad v^0 \\ \text{DP} \quad \text{P}^0 \quad \diagup \diagdown \\ \qquad \text{DP} \quad \text{V}^0 \end{array}$$

- These proposals continue to link HAVE and oblique subject case to the need to license an external argument, rather than to perfective aspect *per se*.

- The next section develops the alternative proposal introduced in section 3, in which oblique subject case and auxiliary HAVE are realizations of perfective Asp^0, but in some languages only in the presence of external arguments.

5   Details of the proposal

Both ergative case and auxiliary selection are often linked very directly to argument structure licensing, often via v^0.

- A common view of auxiliary selection is that HAVE is required to *retransitivize* the passive participle, allowing it to take an external argument (Hoekstra, 1984; Den Dikken, 1994, a.o.), or otherwise that HAVE is involved in licensing the external argument (Kayne, 1993, et seq.).

- Ergativity is similarly diachronically linked to the passive, and ergative case is widely viewed as an inherent case assigned to thematic subjects in their base position (Woolford, 1997; Ura, 2000; Legate, 2008, a.o), or otherwise an oblique case involved in argument licensing (Bok-Bennema, 1991; Johns, 1992; Mahajan, 1997, a.o.).

- Perfective-linked ergativity is also attributed directly to v^0, for example by Anand and Nevins (2006), who propose that ergative is licensed by perfective v^0. For them this head is in fact identical to passive v^0.

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[4]This analysis builds on the observation that possessive HAVE developed historically from BE + P^0 constructions (Benveniste, 1968), and similar analyses of possessive HAVE as being derived from incorporation of P^0 to BE.

These approaches do a good job of explaining the link between particular morphosyntax (auxiliary HAVE or ergative case) and the presence of an external argument.

But there are good reasons to divorce auxiliary HAVE and perfective-linked ergative from v^0:

- As a default position, it makes more sense to associate uniquely perfective morphosyntax with a projection associated with aspectual semantics – i.e. Asp^0 rather than v^0.

- In auxiliary selection languages, the perfective auxiliary can co-occur with passive BE– locating the perfective in v^0 would require two projections associated with argument licensing.

- In aspectually split languages, it is difficult to explain why the ergative-assigning v^0 is not available in the imperfective.

An alternative approach

- Perfective-linked morphosyntax – oblique subject case or auxiliary HAVE– is directly attributed to an aspectual head: i.e. perfective Asp^0.

- Asp^0_{perf} is realized in some languages directly as auxiliary HAVE, while in others it simply influences the morphological realization of arguments in its specifier.

- In its guise as a case assigner, Asp^0_{perf} resembles Pylkkänen (2008)'s applicative heads in that it licenses a DP in its specifier by assigning a particular (oblique) case, but it is unlike an applicative in not introducing any argument, instead attracting a lower DP.

- Whether realized as HAVE or via case, Asp^0_{perf} can be sensitive to the argument structure of its complement.

Remainder of this section walks though how this applies to derive perfective morphosyntax in the languages discussed earlier.

5.1 Uniform oblique subjects: Mingrelian, North Russian, Estonian

In languages where perfective aspect is associated with uniformly oblique subjects (including Mingrelian, North Russian, and Estonian) the pattern can be accounted for straightforwardly:

- Asp^0_{perf} attracts the highest DP in its complement, regardless of whether that DP originates as an external or internal argument.

(26)   a. Transitive/Unergative   b. Unaccusative
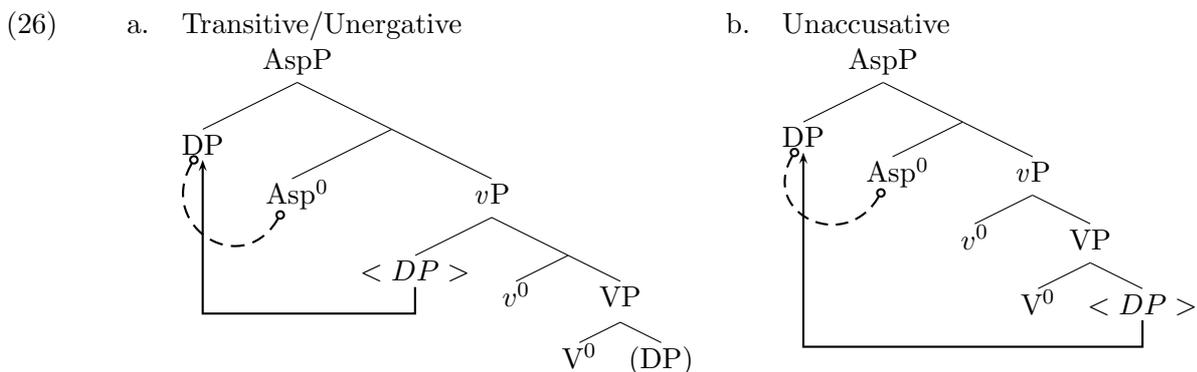
- In an Upwards Agree framework (Wurmbrand, 2011; Zeijlstra, 2012, a.o.), this can be formalized in terms of the DP arguments probing upwards with an uninterpretable Case feature, a feature Asp^0_{perf} is able to check/value.

- The DP in Spec-AspP is, I assume, able to subsequently move to Spec-TP. Whether it triggers finite φ-agreement is determined independently, according to whether oblique arguments are agreement targets in the language (cf. Bobaljik, 2008; Baker, 2008).

5.2 Ergatively aligned oblique subjects: Hindi-Urdu

If aspectually split ergativity in Hindi-Urdu has the same source as uniform oblique in the languages just discussed, we must explain how the case properties of Asp^0 interact with argument structure.

- Specifically: why can Asp^0 assign oblique only to external arguments, whereas heads like T^0, e.g., can assign nominative to whatever DP is highest in their complement.

- This is especially puzzling given that Hindi-Urdu exhibits ergative alignment in agreement as well as in case:

(27) Rahul-ne   kitaab   paṛh-ii   th-ii
       Rahul-ERG book(F) read-F.SG(PFV) be.PAST-F.SG
       "Rahul had read the book."   *(Bhatt, 2005, 760)*

- If If Asp^0 is unable to interact with internal arguments for purposes of case, how can T^0 access them (at a greater distance) for purposes of φ-agreement?

Towards an answer: Structural vs. Oblique case

- A potentially relevant property of Hindi-Urdu in this context is that it lacks movement-based case alternations: derived subjects always retain the case they were assigned in their base position.

- This could be taken as evidence that the overt cases in Hindi-Urdu are all inherent, in the sense of being assigned in the first-merge thematic position of an argument.

- There is evidence, however, for raising at least into dative-assigning positions: Bhatt (1997) demonstrates that modal constructions in Hindi-Urdu involve raising, and thus movement into a dative-case-licensing position.

- If case in Hindi is always assigned in the base position of an argument, we can thus explain Asp^0_{perf}'s inability to establish a relationship with internal arguments by saying that these arguments are already valued for case by v^0 (or Voice^0).

(28)   a. Transitive/Unergative: b. Unaccusative
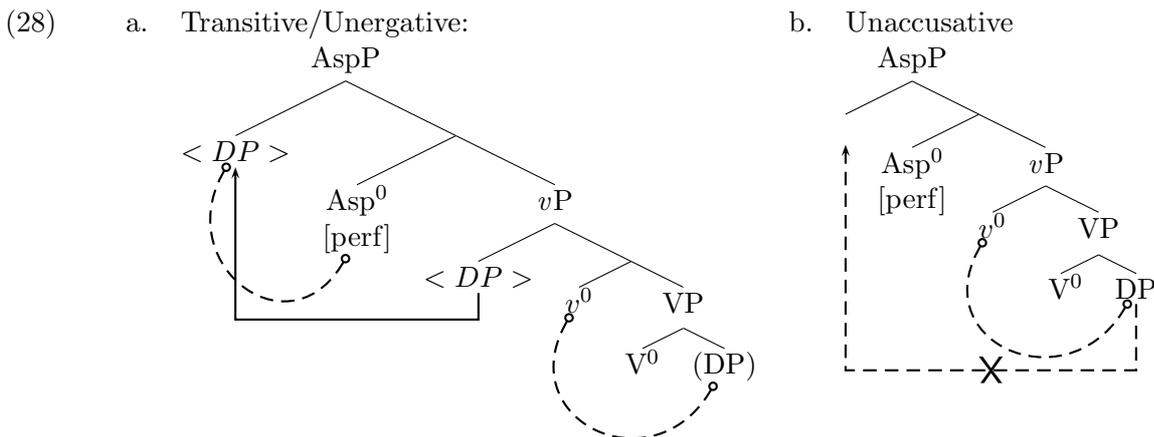
- Though arguments that have received structural case (i.e. from v^0) can no longer receive oblique case (i.e. from Asp^0 or from modals), other "case stacking" must be possible:

  – Because ergative arguments raise to Spec-TP, we might propose that these arguments do establish a case relationship with T^0.

  – Because "absolutive" direct objects do trigger finite φ-agreement, we might say that they are also able to establish a second case relationship with T^0.

  – To account for argument structure sensitivity, we must require that accusative case is still available in unaccusative (and passive) clauses.

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- In other words, what is impossible is assigning oblique case to a DP that has already been valued for structural case.

  - This must be viewed as a language-specific parameter: many other phenomena have been described in which it is indeed possible to assign oblique case "outside" structural case (i.e. "case stacking" phenomena, Richards 2009).

  - Bejar and Massam (1999) review facts suggesting that languages differ quite generally in the availability of multiple case valuation, and how it can be resolved.

- Still unexplained at this point are those transitive subjects that fail to be assigned ergative Case.

  - Can be explained via the existence of a non-agentive subject position lower than the head that licenses accusative case – an "exploded" v^0 domain.

  - Independent evidence for this expansion in Hindi-Urdu: passive auxiliary *jaa* (lit. 'go') occurs above various light verbs, which are themselves either agentive or non-agentive.

This approach does abandon a view of perfective-linked ergative as a thematic or inherent case.

The alternative would be to have perfective be assigned directly by v^0, as in Anand and Nevins (2006) – the relevant v^0 would have to be restricted to occurring only in the perfective.

- It is not impossible to associate aspectual semantics with v^0. For a recent detailed proposal along these lines, see Cowper and Hall (2012).

- However, aspectual contrasts in Hindi-Urdu are generally able to co-occur with contrasts in voice: imperfective and progressive both occur productively in the passive. It would be odd to locate part of the aspectual system on v^0, but the remainder on a higher head Asp^0.

- Moreover, though this is potentially feasible for simple aspectual splits, it would have difficulty extending to account for more complex splits further conditioned by the person and number of the subject argument, i.e. in Gowari.

5.3 Extension to auxiliary HAVE and auxiliary selection

The approach just developed for aspectual splits can be extended to languages with auxiliary selection of the type found in Germanic and Romance.

The main difference will be in the morphological consequence of Asp^0 attracting a DP to its specifier:

- In languages like Hindi-Urdu, Estonian, North Russian, and Mingrelian, perfective Asp^0 can be seen as "applicative like" in that it assigns oblique case to an argument in its specifier, without having semantically introduced that argument.

- In languages with auxiliary selection, perfective aspect does not influence the morphological realization of argument DPs, but instead influences the realization of the perfective aspectual head itself.

There is a long tradition of linking the presence of auxiliary HAVE very directly to transitivity – the idea that HAVE is an intrinsically transitive verb that serves to "retransitivize" the passive participle main verb (Belvin and Dikken, 1997; Den Dikken, 1994; Hoekstra, 1984, 1994, a.o.).
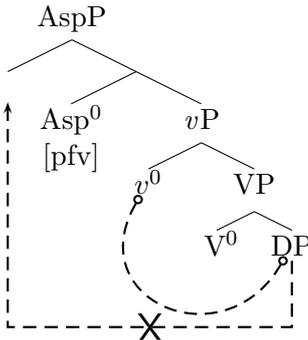
- While there is little semantic justification for composing perfectives from a passive structure, the intuition behind these approaches is maintained if the realization of perfective Asp^0 as HAVE is dependent on whether there is a DP in Spec-Asp^0 – i.e. on whether Asp^0 is syntactically (though not semantically) transitive.[5]

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[5] A similar view of possessive HAVE as involving raising into the specifier of an applicative-like head can be found

(29) Transitive/Unergative: Asp^0_{perf} realized as HAVE due to DP in Specifier

AspP
  < DP >
    Asp^0
    [pfv]
  vP
    < DP >
      v^0
      VP
        V^0 (DP)
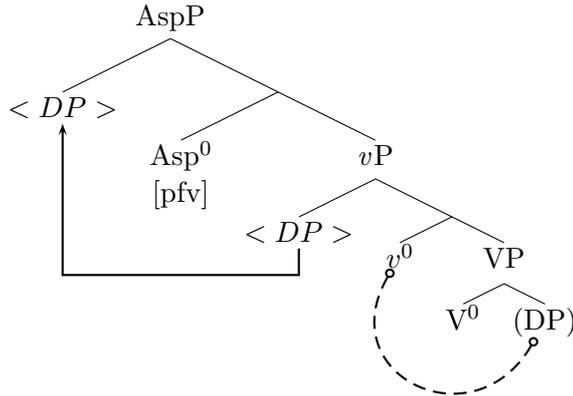
(30) Unaccusative: Asp^0_{perf} realized as BE because Specifier remains empty

AspP
  Asp^0
  [pfv]
  vP
    v^0
    VP
      V^0 DP

Further corroboration: auxiliary selection and clitic position

- Kayne (1993) describes two patterns of interaction between clitic placement and auxiliary selection in varieties of Italian that indirectly support the idea that HAVE indicates the presence of an argument in Spec-AspP.

  In both cases the presence of a pre-auxiliary clitic is associated with auxiliary HAVE.

- In Novara (an Italian dialect described by Turri 1973) auxiliary selection is normally determined by the person and number of the subject (1 and 2 select BE, 3 selects HAVE), but a HAVE auxiliary is also required whenever an object is expressed as a pre-auxiliary clitic (Kayne, 1993, p. 14, translations added):

(31) a. Mi i son mìa parlà
          Me I am not spoken.
          "I have not spoken."
      b. Mi i t'ò   mài parlà
          Me I you$_{dat}$-have never spoken
          "I have never spoken to you."

- In Martiniscuro clitics are able to precede HAVE auxiliaries but not BE auxiliaries, though the choice between these two auxiliaries is determined by the person and number of the subject citing (Kayne, 1993, citing Masrangellao Latini, 1981).

(32) a. Sil-lu   ditte.
          BE.2SG-it say.PTCP
          "You (sg.) have (=are) said it."
      b. (A)   l'à   ditte
          (SUBJ.CL) it-HAVE.3SG say.PTCP
          "He has said it."

---

in the work of Myler (2013, 2014). See also Bjorkman and Cowper (2013, 2014) for this type of view of causative and modal uses of HAVE.

Languages with uniform HAVE—English, Spanish, Greek, etc.—can be accounted for in one of two ways:

- On analogy to uniform oblique languages: Asp^0_{perf} attracts highest DP, regardless of intervening V^0.

- Alternatively, could simply have the morphological realization of Asp^0 be determined by its featureal content, rather than by whether its specifier is filled.

- An interesting detail: uniform HAVE languages all maintain perfect as morphologically distinct from the perfective. Potentially related?

6 Multiple sources for aspectual splits?

With the account of aspectual splits in place, now appropriate to consider its **limits**:

- The proposal that applicative-like Asp^0_{perf} licenses oblique in its specifier can account for aspectual splits where:

    - The split falls between the perfective and the imperfective.

    - There is a further split in intransitives, with unergative subjects receiving ergative case.

- It cannot account for splits where:

    - Imperfective aspect shows ergative alignment, and only the progressive is non-ergative (e.g. Basque).

    - Languages without a split intransitive system.

    - Languages where the non-ergative pattern is so-called "extended ergative" (e.g. Chol)

- This is a narrower scope than other accounts of aspectual splits, in particular Coon (2010, 2013a) (based on Laka (2006)'s analysis of split ergativity in Basque).

    Worthwhile to look more closely at such alternatives, and evaluate whether they indeed offer a potentially universal view of aspectual splits.

What we'll see is that the proposal that aspectual splits arise from **more complex structure in the imperfective** is not supported by the properties of perfective/imperfective contrasts cross-linguistically, either in ergative languages or more generally.

6.1 Aspectual splits and "big" imperfectives: background

This section provides an overview of the proposal that aspectual splits are due to structural complexity in the imperfective.

The analysis of Basque's aspectual split developed by Laka (2006) is the basis of the more general account proposed by Coon (2010, 2013a).

- In Basque, both imperfective and perfective aspect show ergative alignment – only the progressive is non-ergative.[6]

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[6]The glosses have been changed from Laka's original by glossing the auxiliary uniformly as AUX, rather than as HAVE or BE, following Arregi (2004)'s argument that the so-called "HAVE" auxiliary is simply the allomorph of the auxiliary that allows ergative agreement morphology.

(33) a. emakume-a-k   ogi-ak   ja-n   d-it-u
          woman-DET-ERG bread-DET.PLeat-PFV 3ABS-PL-AUX3ERG
          "The woman has eaten (the) breads."

      b. emakume-a-k   ogi-ak   ja-ten   d-it-u
          woman-DET-ERG bread-DET.PLeat-IMPF 3ABS-PL-AUX3ERG
          ' 'The woman eats (the) breads."

      c. emakume-a ogi-ak   ja-ten   ari   da
          woman-DET bread-DET.PLeat-IMPF PROG 3ABS.AUX
          "The woman is eating (the) breads."   *(Laka, 2006, 177)*

- Laka's analysis of the Basque pattern is built on two observations: first, that though the alignment seen in the progressive is sometimes called "nominative", there is no distinct nominative case in sentences like (32)– the subject appears to be marked absolute (unmarked); second, the progressive aspectual particle looks like an embedding verb whose complement clause is locative-marked.

- Laka argues that the progressive particle *ari* is in fact an embedding verb, so that progressive aspect involves a biclausal structure.

  The transitive subject in (33c) is therefore not marked with the ergative suffix *-k* because it is actually the sole DP argument of the matrix clause:

A more general account of split ergativity is proposed in Coon (2010, 2013a).

- Coon proposes that **all** aspectual splits arise because of increased structural complexity in non-ergative aspects.

- The question her account therefore faces is why *only* imperfective or progressive aspects ever result in these splits, crosslinguistically. That is, what is it in imperfective syntax that can divide a clause in two case domains, and why is this systematically unavailable in perfective clauses.

- In response to this question, she appeals to semantic and typological links between temporal relations on the one hand, and locative relations on the other.

- The starting point is the idea that temporal and locative meanings are not merely typologically correlated, but actually deeply semantically and perhaps syntactically identical, as proposed by Demirdache and Uribe-Etxebarria (2000), among others.

  This semantic and syntactic identity is used to account for the fact that in many languages we find clearly locative morphosyntax used to express temporal contrasts. Imperfective and progressive meanings, for example, are very frequently expressed by prepositions meaning *at* or *in* (Bybee et al., 1994, a.o.).

- This type of grammaticalization, on Demirdache and Uribe-Etxebarria's account, reflects the fact that an imperfective aspectual head literally asserts that the reference time is *in* or *contained by* the time of an event:

(34)   Demirdache and Uribe-Etxebarria (2000) view of imperfective:

        reference time

                    Asp^0 event time
                    IN/AT
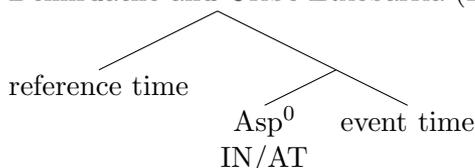
- The locative relation corresponding to **perfective**, by contrast, would be one expressing the **reverse** of the relation expressed by *in* or *at*.

- Coon suggests that no natural language has a preposition lexicalizing such a relation.

Because of this lexical gap, perfectives simply do not have available to them the kind of locative morphosyntax that is available to imperfectives – and so they never contain the kind of structure that disrupts ergativity.

- The final step of the proposal is the claim that because perfective aspect is never locative, it is systematically (structurally) "unmarked" relative to the imperfective.

If true this is an elegant account of both the mechanics of aspectual splits, and of their uniform directionality.

However its claims about the structural relation between imperfective and perfective aspect cannot be maintained on the basis of cross-linguistic comparison.

- Perfective is not always "unmarked" relative to the imperfective.

- Perfective can be associated with (non-locative) prepositional structure.

6.2 Against comparative "markedness" of imperfective

- In support of her typological claims, Coon cites a numer of cases where imperfectives—particularly progressives—appear to involve more morphosyntactic structure than corresponding perfectives, in the sense of involving an additional auxiliary verb or particle. Similar evidence is cited in Coon and Preminger (2011) and Coon (2013b)

- Such examples are used to argue that the imperfective is **uniformly** more structurally complex than the perfective.

- By contrast, typological work on aspect presents a much less categorical picture of the relative markedness of imperfective and perfective.

    The consensus view there is that either perfective or imperfective may be the "marked" member of an aspectual contrast (Comrie, 1976; Dahl, 1985).

- Indeed, if we follow Coon in using the presence of an auxiliary verb as a diagnostic of structural complexity (or, as in Bjorkman (2011), at least featureal complexity), there are many cases where perfective verb forms transparently involve "more" structure than their imperfective counterparts.

    This often arises because the perfective form has developed from an earlier (complex) perfect form, as in the case of French:[7]

(35)   a.   Ils   ont   dansé.
                 they.M have.3PL dance.PTCP
                 "They danced / have danced."
        b.   Ils   dansaient.
                 they.M dance.IMPF.PAST.3PL
                 "They danced / were dancing."

- Moreover, the presence of an auxiliary does not correlate with the disruption of ergativity, even in the languages Coon discusses.

- Coon (2013a), for example, provides contrasts like the following from Hindi-Urdu as evidence that the perfective is less structurally complex than the imperfective in that language. As we have already seen, the perfective is expressed by a simple inflected verb, while the imeprfective requires an auxiliary.

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[7]This applies only to spoken French: formal written French maintains the earlier synthetic perfective, the *passé simple*.

(36)   a.   Lataa-ji-ne   kai   gaane   gaa-ye.
              Lataa-HON-ERG   many   song.M   sing-PFV.M.PL
              "Lataa-ji sang several songs." (Bhatt 2007, (5a))
       b.   Lataa-ji   gaane   gaa-tii   hɛ̃   / thi:
              Lataa-HON   song.PLsing-HAB.F   BE.PRES.PL   / BE.PAST.F.PL
              "Latta-ji sings/used to sing songs."   *(Bhatt 2007, 8a)*

- Coon fails to mention, however, that Hindi-Urdu uses an auxiliary-participle construction entirely parallel to the imperfective to express the perfect – but that the perfect shows ergative alignment.

(37)   Lataa-ji-ne   kai   gaane   gaa-ye   hɛ̃   / the
       Lataa-HON-ERG   many   song.M.PL   sing-PFV.M.PL   BE.PRES.PL/ BE.PAST.M.PL
       "Lataa-ji has/had sung several songs."   *(Bhatt 2007, 5b)*

- Many of the other examples discussed by Coon as structurally complex imperfectives are in fact specifically *progressive*.

- Indeed, progressives tend to be more morphosyntactically complex than either perfective or imperfective.

  But this is true of essentially **all** aspects beyond the basic perfective/imperfective contrast.

  True of perfects, inceptives, completives, duratives, etc. etc.

- If we employ a simple metric for syntactic complexity ("amount of visible syntactic material") and our claim is that "more material" corresponds to a greater likelihood of a split, then we would expect to find splits where perfective and perfect pattern together to the exclusion of the imperfective.

  Yet that is precisely the type of split we do not see, and which Coon's account is built to exclude.

6.3   In favour of prepositional content in the perfective

The last section argued that perfectives are not reliably "less marked" than imperfectives, typologically speaking.

A reasonable response would be to protest that what is special about imperfective syntax is not merely that it is more complex than its perfective counterparts, but that its complexity involves specifically **locative** syntax.

But the perfective can be locative too. . . . or at least prepositional.

     While perfective clauses marked by clearly locative morphosyntax are at best much rarer than locative imperfectives, it is quite common for perfectives to be expressed by **possessive** syntax.

     Common view of possession as fundamentally prepositional Freeze (1992); Kayne (1993); Boneh and Sichel (2010); Levinson (2011); Myler (2013, a.o.).

Possessive perfects are thus just as prepositional as imperfectives expressed by "in" or "at".

Breaking this down:

- Bybee et al. (1994) observe that explicitly locative expressions analogous to *in* or *at*, or explicitly locative verbs like *sit* or *stay*, are used crosslinguistically to express imperfective or progressive meanings.

Within their survey, however, no such transparently locative expressions are used to express perfective or anterior meanings.

- Coon proposes that this typological gap arises because there of a corresponding typological gap in the inventory of prepositions: no preposition corresponding to the meaning of a perfective.

  In other words, no preposition *ni* as in (38a) actually means (unambiguously) the same as (38b).

(38)   a.   A is ni B.

        A B

        b.   B is in A.

(39)   Closest approximation: A is *outside* B. (ambiguous)

        a.   A B   b.   A B

Two points here:

1. Locative morphosyntax is not used to express perfective meanings.

2. This is expected, because natural language simply lacks the type of locative morphosyntax that *would* express perfective meanings.

However, we do actually find perfective meanings associated with arguably prepositional, albeit non-locative, morphosyntax: **possession**

- Freeze (1992) and Kayne (1993), among others, have argued that the possessive verb *have* reflects the syntactic presence of a prepositional head.

- Indeed Coon and Preminger (2011) assume a prepositional source for HAVE in their remarks on person-based auxiliary selection, but do not address why this preposition does not have the clause-dividing property of the locative structure in imperfectives.

- So we **cannot** attribute the failure of perfective aspect to disrupt ergativity to a typological aspect of its structure.

  The perfective is just as prepositional as the imperfective – it's just a different preposition.

6.4   Summary

Coon (2010, 2013) proposes an elegant account of aspectual splits, which offers an explanation for why it is always the imperfective/progressive that is non-ergative.

- In detail, it is almost certainly the correct analysis of many aspectual splits, particularly Basque and Chol.

- Applied more generally, however, it relies on a representational asymmetry between perfective and imperfective aspect that does not appear to be borne out.

Remaining question: why is the perfect associated with possessive morphosyntax, rather than locative morphosyntax?

A wildly-speculative answer to a different question: Consider the ambiguity of *A is outside B*, illustrated in (39).

Imagine that these were relations between times, rather than physical objects. (39a) resembles a perfective; (39b) resembles a perfect.

Perhaps this is related to the fact that in language after language we find an ambiguity between these two categories, despite their different semantics.

7   Conclusion

Central claim of this paper has been that aspectually split ergativity fits naturally within a broader typology of perfective morphosyntax.

These patterns can be related to one another, however, only if ergative is licensed directly by perfective Asp^0.

This represents a departure from recent work on aspectual splits, which have proposed that imperfective aspect instead disrupts ergative assignment.

Whence the aspectual hierarchy? A serious drawback of this approach is that because it does not offer a unified analysis of aspectual splits, it cannot explain why they are so consistent in direction – but the existing explanations fall short as well.

Related issues (feel free to ask):

- Person/number splits, especially their interaction with aspectual splits

- Relationship between perfect(ive) and possession

- ERG-OBL splits (i.e. Georgian, perhaps Inuktitut)

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