Ergativity splits in Punjabi and Kurdish

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Abstract. The so-called ergativity split between perfect and imperfective/progressive predicates is observed both in languages with a specialized ergative case (Punjabi) and in languages without (Kurdish). We propose that perfect predicates correspond to a VP projection; external arguments are introduced by means of an oblique case, namely an elementary part-whole (or location) predicate saying that the event is 'included by', 'located at' the argument. In a VP predicate the inflection picks up the internal argument, determining phi-feature identity ('agreement') with DPs lexicalizing it. A more complex organization is found with imperfective/progressive predicates, where a head Asp projects a functional layer and can introduce the external argument, determining nominative type agreement. Punjabi further presents a canonical 1/2P vs. 3P Person split. Our proposal yields the syntactic Person split as a result of the intrinsic ability of 1/2P to serve as 'location-of-event'.

1. Introduction

Ergative alignments in case and agreement observed in Indo-European languages are generally subject to an aspectual split; in Punjabi a person split is also observed. Though Dixon (1979) refers to ergativity splits of the type mainly illustrated in our work as TAM (tense/aspect/mood) splits, there appears to be a fair consensus as to the fact that aspect is by far the most common (e.g. Coon 2013:176-177). Remnants of the aspectual split are found in Romance languages (Italian, French) where perfect participles agreement with objects of transitives and subjects of inaccusatives (a pattern whose 'ergative' nature was highlighted by Burzio 1986). The phenomena just mentioned are documented in the primary literature and do not present descriptive problems.[1] The reasons for

[1] The relevant descriptive and theoretical literature will be quoted as the discussion proceeds. Our evidence does not modify the empirical record; however using primary data allows us to base the analysis directly on the intuitions of our native informants. The choice of Punjabi depends on its emblematic case organization (Bailey 1904, Bhatia 1993) and, naturally, on the availability of speakers, among our students. Data are transcribed in a broad IPA from the (Doabi) variety spoken in the Indian town of Hoshiarpur; in the transcription we leave out in particular tonal properties (Bhatia 1993). Some variability in the examples similarly reflects the native speakers varying output (for instance as to whether the auxiliary is or is not realized). Analogously, our Kurdish data are obtained through interviews with native speakers. The Bahdini variety of Kurmanji Kurdish was elicited from Northern Iraqi speakers. The Sorani data are from two informants, one from the town of Mariwan and the other from Sanandaj, both in Iran. This research has benefited from PRIN 2012 funds, granted by the Italian MIUR. We take the opportunity to thank Miss Rajvir Kaur and her family for

this paper are therefore theoretical. We seek to model ergativity and ergativity splits in Punjabi and Kurdish within the framework of generative grammar and in particular its more recent minimalist and biolinguistic versions (Chomsky 1995, 2001, 2013, Hauser, Chomsky and Fitch 2002); at the same time we seek to address some questions of general relevance for the framework, concerning language universals and language variation.

Following Chomsky, there is an invariant repertory of interface primitives, both phonetic (PF) and conceptual (LF), as well as an invariant computational processor (syntax) and that variation is lexical. This is consistent with the idea that variation depends on 'externalization' (Berwick and Chomsky 2011), or in other words lexicalization. Yet several implementations of these guidelines are possible. Implicitly or explicitly, much minimalist work assumes that all languages make full and invariant use of the conceptual inventory of UG, so that the primitives from which syntax is built form a universal repertory and yield a universal syntactic hierarchy – in other words, a sort of Universal Base Hypothesis. Thus for instance cartography (Cinque and Rizzi 2010) adopts a rich abstract structure motivated by syntax internal or semantic reasons, without apparent regard for opacity at the morpholexical interface.

Based on these premises, Kayne (2010) proposes that linguistic variation is the result of the different ways of pronouncing structures that are in themselves invariant – or in other words of the different portions of structure that remain 'silent' or are lexicalized in any given language. On the other hand, the routine implementation of lexical parameterization in the minimalist literature seems to be that since by hypothesis categories and categorial hierarchies are fixed, what varies are 'features'. Specifically, as far as we understand, those features vary that trigger derivation in the standard minimalist model, namely uninterpretable features. Thus variation becomes a result of encoding different computational instructions ('features') in the universal categorial inventory and structure.

We are interested in making explicit and supporting a view which contrary to those just briefly reviewed does not hold some form of Universal Base Hypothesis. Though we agree that there is a universal conceptual space, variation depends on the fact that the language-specific categories not necessarily externalize all pieces of it and not necessarily in the same way. Since we assume that the lexicon is prior to syntactic computation (Chomsky 1995), rather than a postsyntactic vocabulary of exponents (Halle and Marantz 1993), this means that the categorial organization of syntax may differ from language to language.

In fact, the issue of categorial primitives is directly connected to that concerning the relation of meaning to syntax. Much current theorizing assumes a picture whereby syntax includes

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their collaboration.

interpretation, in the sense that all relevant semantic information finds itself encoded into syntactic structure. This depends on what Culicover and Jackendoff (2006) call Interface Uniformity namely that "meaning maps transparently into syntactic structure; and … the same meaning always maps onto the same syntactic structure'. We agree with Culicover and Jackendoff (2006: 416) that interpretation is "the product of an autonomous combinatorial capacity independent of and richer than syntax", "largely coextensive with thought", which syntax and syntactic categorization simply restrict in crucial ways. Therefore it is expected that slightly different sets of morphosyntactic categories may converge towards the same interpretation. If we read them correctly, Ramchand & Svenonius (2008) say much the same – namely that the 'final representations for 'the same thought'' are not necessarily identical; rather, different languages can have at their disposal 'different lexical ingredients'.

Discussion about variation in syntactic categorization and categorial hierarchies tends to take ideological overtones. According to Everett (2005) there exist languages that cast a shadow over the more crucial tenets of UG, like recursion/embedding (see Nevins, Pesetsky and Rodrigues 2009 for a reply). Evans and Levinson (2009) get to the point of arguing that linguistic diversity makes the existence of linguistic universals and in particular, the notion of UG into a myth, devoid of explanatory power (see Rooryck et al. 2010 for replies). Yet questioning of categorial distinctions as fundamental as noun and verb (Jelinek 1995) are independently found in the literature (though see Davis, Gillon and Matthewson 2014). Here we will argue that adopting a unique underlying categorial hierarchy from which every language constructs its morpho-syntax is neither necessary nor necessarily advantageous, when it comes to the way languages externalize states and events, depending on their specific lexical means.

In this article, we argue that in Punjabi or Kurdish the transitivizing head introducing the external argument (of transitives and unergatives) is better construed as Asp, since it primarily encodes aspect. For perfects, we propose that no AspP layer is projected; therefore perfects are always VPs. This means that a causer/agent cannot be licenced by Asp and can only be introduced via an oblique case, namely the specialized ergative (Punjabi) or an all-purpose oblique (Kurdish).

An important stream of literature, specifically on Iranian languages, connects 'ergative' structure with 'possession' structures. Montaut (2004:39) quotes Benveniste's (1966: 176-86) conclusion that "the Old Persian structure … is intrinsically possessive in its meaning, and is analogical with the periphrastic perfects in Latin (*mihi id factum*, me-DAT this done)"[2]. In other

[2] Benveniste's view has been subsequently criticized by Iranologists (e.g. Cardona 1970), who have revived the more traditional characterization of the past participle construction of (Old) Iranian as a "passive construction". Nevertheless Lazard (2005), Butt (2006), Haig (2008), Whitman & Yanagida (2014), among others, come out in favor of the possessive analysis.

words, the external argument is treated not so much as a causer/agent in an event as the possessor of a state – the relation of the external argument to the predicate is formally identical to that found with nominal predicates. This line of inquiry, relating ergativity to nominal structures, is not just relevant for Indo-European languages. In the words of Johns (1992: 68) "similarities in case and agreement between transitive clauses and possessive phrases is a long-standing issue in Eskimo linguistics … The first of these similarities is that the case assigned to the specifier (possessor) of a possessed noun is the relative case, the same case that is assigned to the actor in the transitive construction". Thus for Johns a transitive declarative sentence "is constructed syntactically along the lines of 'The bear is the man's stabbed one'. Semantically of course it must have the meaning 'The man stabbed the bear'" (p. 61)[3]. In these terms, ergative case (as in Punjabi) or the all-purpose oblique case of Kurdish on the external argument DP correspond to a 'possessor' relation between VP and the VP stative predicate.

In standard minimalism, direct case is an uninterpretable property (Chomsky 1995) checked as a byproduct of Agree (Chomsky 2001). Oblique cases can be reduced to this model, if we suppose that there are abstract heads, such as Appl heads (Pylkkänen 2008) against which oblique cases are checked – or that are a byproduct of Agree with these heads. Yet the morphosyntactic reality of Indo-European languages is that cases are uniquely represented in the morphology of nouns (and nominal constituents) and not on the verb or verbal constituents. Therefore, at least for obliques we follow a different tradition, equally represented in formal approaches (cf. originally Fillmore 1968) – namely that they are inflectional counterparts of Ps – in other words elementary predicates mediating the attachment of DPs to the eventive core of the sentence. In particular, following Manzini and Savoia (2011b, 2014), Franco et al. (to appear), we take the basic oblique case of natural languages to correspond to the part-whole elementary predicate; so a 'possessor' is essentially a 'whole' including a 'part' (the possessee).

Going back to the general picture, we are interested in the interpretability of oblique 'case', in that we consider that uninterpretable features are a potentially unrestricted device – nor do we accept Chomsky's (1995) conclusion that they are empirically forced. In fact, following this line of thought we call into question the role of uninterpretability in canonical agreement, as a technical tool conceived to force derivation (Chomsky 1995), and therefore as an acquisition device (Biberauer 2014). Despite this, it should be noted that the intuition that our model expresses about oblique case is compatible with the main conclusion in Chomsky (2001), namely that the relational nature of case does not allow it to be an intrinsic property of nominal heads or phrases, in the same way as number or person are. Chomsky resolves this dilemma by proposing that direct case is an

[3] The fact that the ergative case often coincides with the genitive has been noted in the typological literature (Allen 1964, Dixon 1979, Comrie 1978).

epiphenomenon of phi-features (though see Baker and Vinokurova 2010). We resolve the same dilemma by saying that oblique case is a predicate-like element, hence it is not a property of the D(P) to which it attaches – rather the DP is one of its arguments.

In a nutshell, in Punjabi and Kurdish, perfect predicates do not have an Asp layer of structure (they are VPs) and are only compatible with an external argument 'possessor' [DP(⊆) [DP V]]. By contrast we may keep to the familiar assumption that imperfective/progressive aspect projects an Asp category to which causer/agent arguments can be attached [DP [Asp [DP V]]. Similarly, consistently nominative languages like English, Italian etc. have a constant transitive structure [DP [v/Asp [DP V]]. The current discussion on ergativity splits in generative grammar replicates to some extent a traditional debate though developed in terms of internal rather than external evidence (cf. fn. 2). For instance Baker and Atlamaz (2013) writing on Kurmanji Kurdish, revive the idea of a Voice based split (ultimately depending on whether v is or is not a phasal head). Nash (2014), writing on Georgian argues in favour of an Aspect based asymmetry, whereby imperfectives include an Event projection not present in the aorist. Evidently our aim is to bring evidence from Indo-European languages in support of this second approach; the characterization of the oblique subject of perfects (not a *by*-phrase, but rather a possessor/location oblique) represents the core of our contribution. [4]

In the present perspective, the ergativity and ergativity split parameters, depend on a language particular categorial and structural organization of conceptual content, effected by the lexicon of each language, and projected via the lexicon to syntactic structures. Our aim is to argue that such an analysis does not contradict any of the insights of the minimalist, biolinguistic model, while holding some potential advantages in terms of the simplicity and restrictiveness of the model and its unification potential.

2. Punjabi: The aspectual split

[4] It should perhaps be mentioned that there are also purely morphological analyses of ergativity and ergativity splits; in particular, Keine (2010) analyzes split ergativity in Hindi, Punjabi and Marathi (among other languages) in a Distributed Morphology framework. He assumes that the abstract case features on all kinds of subjects are identical, i.e. [-oblique, +subject]. The alternation between surface case forms only arises as a consequence of post-syntactic impoverishment which deletes [+subject] in certain contexts, in particular [-perfective]. Furthermore impoverishment feeds agree in the sense that 'The verb agrees with the subject if it is zero marked. If not, it agrees with the object if it is zero marked. If not, the verb exhibits default agreement' (Keine 2010:41). To account for the person split of Punjabi and Marathi, Keine assumes a further impoverishment operation, which deletes [–oblique] for participant subjects regardless of aspectual features. Such impoverishment rule leads to zero exponence in the perfective but does not affect phi-transparency in Keine's model, due to the fact that [+subj] prevents a DP from controlling phi-agreement. This account has the same problems generally imputed to impoverishment based analyses (Manzini and Savoia 2007, Kayne 2010) – namely that the matching of underlying and surface forms is arbitrary. For instance, the framework is powerful enough to allow for [+subj] deletion to be matched to imperfective aspect or [+obl] deletion to be matched to non-participant subjects.

In order to understand the Punjabi data, it is useful to have a sketch of Punjabi morphology at hand. There are two nominal classes, conventionally masculine and feminine. A sub-set of masculine nouns present the inflection *–a* in the absolute singular form (1a) and *–e* in the oblique singular and in the absolute plural (1b). The oblique plural masculine is in turn realized as*–ea* (1c). Case postpositions, like ergative *-ne*, or DOM *–nu* attach to the inflectional oblique. As for the feminine, at least some nouns present the inflection *–a* in the plural as in (2a). Another sub-set of them alternates between a singular with final *–i* and a plural with *–ĩã̃*, as in (2b-c).

(1)	a.	munɖ-a	'boy-msg.Abs',
	b.	munɖ-e	'boy-msg.Obl/boy-mpl.Abs'
	c.	munɖ-ea	'boy-mpl.Obl'
(2)	a.	kita:b/kitabb-a	'book.fsg.Abs/book-fpl.Abs'
	b.	kuɾ-i	'girl-fsg.Abs
	c.	kuɾ-ĩã	'girl-fpl.Abs

3rd person pronouns show a similar case organization to nouns, as indicated in (3a-d) for the pronoun *o/e* 'he/she', where the contrast is remote (*o*) vs. proximate (*e*). 1st/ 2nd person pronouns have a specialized form for genitive (4c) besides an absolutive and a dative/DOM form (4a-b); they lack ergative.

(3)	a.	o/e	3sg.absolute
	b.	o/e-nu	3sg-dative/DOM
	c.	o/e-ne	3sg-ergative
	d.	o/e-de	3sg-genitive
(4)	a.	mɛ:	1sg absolute
	b.	mi-nnu	1sg-dative/DOM
	c.	me-re	1sg-genitive

2.1 The perfect and its agreement pattern

In the perfect, the verb is a participial form, bearing number and nominal class inflections; this participial form may be embedded under a 'be' auxiliary, which is however optional. In a transitive

sentence the internal argument is in the so-called absolutive case, the external argument bears the ergative case, and the perfect agrees with the internal argument, as in (5). As a help to the reader, we highlight agreement pairs.

(5) a. ku'ɾ-ĩã-ne dərvaddʒ-a kolt-a (a)
girl-fpl-Erg door-Abs.msg open.Perf-msg be.Pres
'The girls opened the door'

b. o-ne rotʈ-i khadd-i si
s/he-Erg bread-Abs.fsg eat.Perf-fsg be.Past
'S/he ate the/some bread'

c. o-ne kut't-e peddʒ-e
s/he-Erg dog-Abs.mpl send.Perf-mpl
'S/he sent the dogs'

d. una-ne ki'tabb-a dek'kh-ĩã
they-Erg book-Abs.fpl see.Perf-fpl
'They saw the books'

Consider example (5b). The noun *rotʈ-i* '(the) bread' consists of the predicative base *rotʈ* 'bread' and of the nominal class inflection *–i* for the feminine. We could of course assume that the nominal class and number properties of the absolute, agreeing DPs in (12) conceal abstract case properties – say absolutive case. Yet Chomsky's (2001) proposal about case actually amounts to saying that direct case dissolves into phi-features. It is not obvious why one would want to implement this by saying that there are abstract case properties that are parasitically (hence invisibly) checked every time phi-features are checked, as one routinely does in, say, English. A much more direct way to proceed is admitting that number and nominal class properties of these elements are able to lexicalize argumental reference without need to resort to case specifications at all. Correspondingly, we speak of the absolute form of the noun rather than of the absolutive case.

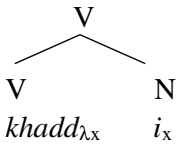
The basic role of the uninterpretable case feature on DPs in minimalist theory is to encode the Case Filter of GB theory, as originally proposed by Vergnaud (2008[1978]). The intuition is that chains (i.e. n-tuples of referential material ultimately satisfying an argument slot) must be 'visible' and that case satisfies visibility. Yet under Chomsky's (2001) proposal, it is agreement that in factgives visibility to a DP (since case depends on agreement). A difference between agreement features and their case reflex is that the latter, being uninterpretable, is deleted upon checking, so that checking of case yields a freezing or criterial effect (Rizzi and Shlonsky 2007), while

agreement can be iterated. Yet once again the real difference seems to be between different types of agreement (criterial and iterable – or perhaps labelling and non-labelling in Chomsky's (2013) model), so that reference to case seems not to add any explanatory value.

Let us concentrate then on agreement. Chomsky (1995) argues that there can be a single set of interpreted phi-features corresponding to a given argument; thus copies on predicates are uninterpretable and agreement is but the surface reflex of syntactic processing deleting uninterpretable copies. Even though we grant Chomsky's premises, namely that each argument slot is satisfied by a unique set of phi-features, the consequences that he draws from these premises are not logically necessary. Under Chomsky's Agree a Minimal Search and Match (identity) rule applies to identical, local pairs of phi-features clusters, because uninterpretable members must be eradicated by LF – or Full Interpretation would not be satisfied. Nothing however prevents us from applying Minimal Search and Match to interpretable pairs of features. The operation can still be driven by Full Interpretation; however we must assume that what it does is bundle together phi-feature clusters which satisfy the same argument slot (a sort of chain formation process).

In turn, taking morphological constituents to carry the burden of argument satisfaction has a long-standing tradition in generative studies, starting with the Pronominal Argument Hypothesis of Jelinek (1984) – but also including approaches to null subject phenomena in which the verb inflection alone carries argumental reference (Manzini and Savoia 2005, 2007 for perhaps the strongest version of this idea). Going back to (5b), the perfect participle *khadd-i* 'eaten' will consist of the V root, *khadd-* which has an argument to saturate, namely its internal argument and the *–i* inflection, providing a morphological level saturation for it, as in (6).

(6)



As it turns out, in Punjabi, the inflection of the perfect is sufficient to lexicalize the internal argument of the verb with a pronominal 3rd person reference, as seen in (7). One may of course want to postulate an empty category DP agreeing with the inflection in (7), as in Rizzi (1982) and much subsequent work. However adopting accounts of pro-drop where the inflection carries the entire referential burden, (7) provides supports for the analysis in (6).

(7) a.

oval-e	kutt-e-ne	dekkh-ea
that-Obl.msg	dog-Obl.msg-Erg	see.Perf-msg

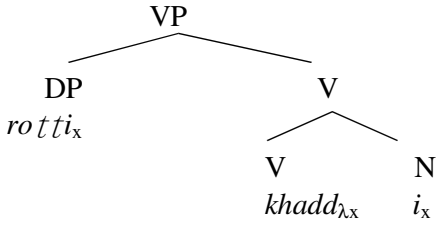
'That dog saw him'

b. oval-e muɳḍ-e-ne dekkh-e
that-Obl.msg boy-Obl.msg-Erg see.Perf-mpl
'That boy saw them'

Merger of the substructure in (6) with the DP *roṭṭ-i* yields the structure in (8) for the perfect predicate (5b). In standard minimalist terms, Agree is responsible for matching the features of *roṭṭi* and the *–i* inflection in a structure like (17). The procedure is purely computational and is driven by the presence of uninterpretable phi-features on the verb, acting as probes for the interpretable phi-features of DP.

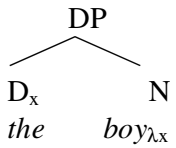
If we maintain that the *–i* inflection has pronominal-like content, the relation between *roṭṭi* and *–i* in (8), is akin to clitic doubling. In other words, (*roṭṭi, -i)* is a chain, i.e. a single discontinuous argument, where the elementary descriptive content of *–i* is bound by the referential DP *roṭṭi*, ultimately satisfying the internal theta-role of the verb.

(8)



To be more precise, *roṭṭi* in (8) also has a complex internal structure consisting of the lexical base 'bread' and of the same *–i* inflection (for the feminine nominal class) that characterizes the predicate. Recall that Higginbotham (1985) argues that a nominal base is a predicate with one argument to be saturated (the so-called R-role) and that in English the determiner is the referential material responsible for saturating it, along the lines in (9).

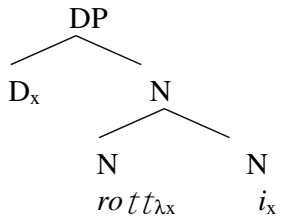
(9)



For Punjabi, we propose that the Nominal Class (gender) morphology overtly visible in this language provides a descriptive content for the R-role of the predicative base. Closure by an abstract D operator (Ramchand and Svenonius 2008) yields a referential reading for the argument. This is illustrated in (10) for *roṭṭ-i* 'bread-NClass', where λx denotes the open place at the

predicate 'boy', the *–i* nominal class morphology provides descriptive content for the x variable and the D operator binds this descriptive content mapping it to an individual.[5]

(10)



Therefore so-called agreement in (8) results from the presence of a discountinous pronominal element defined by the D operator and by the feminine singular descriptive content. This provides the saturation for the internal argument slots of both 'bread' and 'eaten', i.e. 'it$_f$ bread, eaten it$_f$' – essentially taking the Pronominal Argument hypothesis of Jelinek to be a general property of natural languages. The analysis of transitive sentences in (8) also makes predictions on intransitive sentences. Consider first verbs which on cross-linguistic grounds we may take to be unaccusative, i.e. to take only an internal argument (a theme). The argument appears in the absolute form and agrees with the verb, as shown in (11). By contrast, with unergative intransitives, the sole argument of the predicate is the external argument and it is introduced by ergative case. Furthermore, in the absence of an absolute argument, the perfect turns up in an invariable, non-agreeing form, as in (12).

(11) a. muɳɖ-a / muɳɖ-e depp-ea/-e
boy-Abs.msg/boy-Abs.mpl fall.Perf-msg/-mpl
'the boy/the boys has/have fallen'

b. su-i /su-ĩã degge-i/-ĩã
needle-Abs.fsg/needle-Abs.fpl fall.Perf-fsg/-fpl
'A/the needle/the needles has/have fallen'

(12) a. muɳɖ-ea-ne dɔɾ-ea/ boll-ea si
boy-mpl.Obl-Erg run.Perf-msg /talk.Perf-msg be.Past
'the boys ran/ talked'

b. kuɾ-i-ne/ muɳɖ-e-ne hass-ea si

[5] As far as we can tell, Adger and Ramchand's (2005) feature system is largely compatible with the present proposal. Their Λ feature translates into a lambda abstractor λx whose variable is introduced by a pronoun with a dependent value (I_D:dep in their notation).

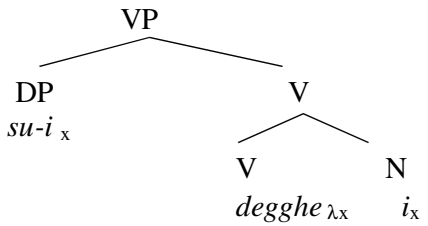
The idea that nominal class is a crucial component of the interpretation of NPs independently surfaces in the literature, especially in discussions of Bantu, e.g. Kihm (2005), Dechaine et al. (2014).

girl-fsg-Erg/boy-Obl.msg- Erg laugh.Perf-msg be.Past

'the girl/ the boy laughed'

The pattern of unaccusatives in (11) is expected on the basis of the structure in (13). The verb inflection provides an (inflectional-level) lexicalization of the internal argument within the verbal constituent. This agrees with the DP, which is attached to V in its base form, the so-called absolute. Merger of the VP and of its internal argument DP yields a VP structure.

(13)



In turn the pattern of unergatives in (12) is expected under Hale and Keyser's (1993) construal of unergatives as concealed transitives. If the perfect participle inflection corresponds to an internal argument, we can exclude that it will pick up the external argument of unergatives. At the same time, one may object that the presence of an invariable masculine singular inflection even in the absence of an internal argument, represents a difficulty for the pronominal theory of agreement. We have all reasons to believe that the morphological structure of the non-agreeing participle is the same as for the agreeing participle. In a realizational model of the PF interface, it may be possible to treat the masculine singular inflection as just a morphophonological default. However this is not possible within the present projectionist model, where the perfect inflection must be inserted by syntactic merger.

We propose that the invariable (non-agreeing) form of the participle inflection *–ea* in (12) is the counterpart of an expletive pronoun. In particular, the characterization of unergatives as concealed transitives is based on the idea that they involve the incorporation of a nominal object into a light verb. The internal argument related inflection of the perfect picks up this incorporated object. We are aware that there is a possible construal of the agreement data in this section in terms of standard minimalist Agree; it is sufficient to associate a probe with V (by inheritance, if desired) and allow it to seek a goal downwards only. The result is agreement with the internal argument, or default agreement in the absence of an internal argument. However we are interested in showing that the form of the grammar and empirical evidence do not force the adoption of uninterpretable features – with the consequences that this has for the theory of case.

2.2 The progressive and the two-layer structure of predicates

With the progressive participle, both the internal and the external argument can surface in the absolute form as in (14), at least when the internal argument is inanimate or indefinite (we shall return to Differential Object Marking in section 3); the progressive participle agrees in person and number with the external argument of transitives in the absolute form. When combined with a past auxiliary, the progressive participle yields a past progressive interpretation, as in (14c).

(14) a. o muɳḍ-a dekh-d-a/-i (a)
s/he.Abs boy-Abs.msg see-Progr-msg/-fsg be.Pres
'S/he is seeing a boy'

b. muɳḍ-a/ muɳḍ-e dərvaddʒ-a khol-d-a/-e
boy-Abs.msg/boy-Abs.mpl door-Abs.msg open-Progr-msg/-mpl
'the boy/the boys is/are opening the/a door'

c. o kut't-a dekh-d-a/-i si
s/he.Abs dog-Abs.msg see-Progr-msg/-fsg be.Past
'S/he was seeing a/the dog'

Among intransitive verbs, unergatives reproduce in essence the transitive pattern in all relevant respects. Thus in (15), their only argument, which is the external argument, agrees with the verb and surfaces in the absolute form.

(15) a. muɳḍ-a/ muɳḍ-e hassə-d-a/-e si
boy-Abs.msg/boy-Abs.mpl laugh-Progr-msg/-mpl be.Past
'The boy/the boys was/were laughing'

b. ku'ɾ-i/ ku'ɾ-ĩã ron-d-i/- ĩã (a)
girl-Abs.fsg/ girl-Abs.fpl cry-Progr-fsg/-fpl be:Pres
'a/the girl/ the girls cries / cry'

c. mɛ:/ appa bol-d-i/-e a
I.Abs(f)/we.Abs talk-Prog-fsg/-mpl be.Pres
'I/we am/are talking'

Unaccusatives also behave like unergatives in progressive tenses. Thus as illustrated in (16),

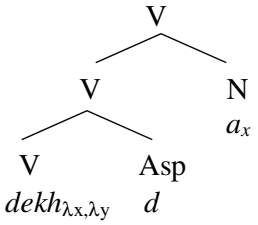
the sole argument of the verb in the absolute form agrees with the verb, unlike the internal argument of the transitive in (14).

(16) a. muɳɖ-a/ muɳɖ-e deg-d-a/-e
boy.Abs.msg/boy.Abs.mpl fall-Progr-msg/-mpl
'a/the boy/ the boys is/ are falling'

b. mɛ: auŋg-i/-a
I.Abs come.Progr-fsg/-msg
'I(m/f) am coming'

Let us consider the examples in (14). In the discussion of the perfect, we only introduced the VP layer of structure involving the verb and its internal argument; we delay the issue how the external argument is introduced in the perfect (namely by ergative case), till we consider oblique cases in section 3. The question is how the external argument is introduced in the progressive, where it takes the same absolute form as the (indefinite/inanimate) internal argument. The standard minimalist model, developed for English, assumes a two-layered verbal structure where the internal argument is introduced by the V predicate, while the external argument is introduced by the transitivizing predicate *v*. In reality, *v* has no further explanatory content than encoding (in a simple and elegant way) the application of the external argument. In Punjabi, we note that the progressive participle has a complex internal structure, as detailed in (17) for *dekh-d-a* 'see-Progr-msg'. Specifically, the lexical base combines with the aspectual (Asp) specification *–d-* for the progressive, as well as with a phi-features inflection, which picks up the external argument of transitives and the sole argument of intransitives.

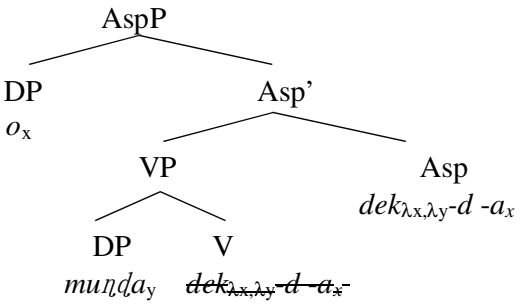
(17)



The mapping from the morphological structure in (17) onto syntactic constituent structure can be implemented in several ways. Chomsky (1995) has syntactic head-movement/feature checking, Brody (2003) argues for Mirror Theory; Chomsky (2001) assumes that there is a single V position of merger, and different positions where it can be pronounced ('PF-movement'). In any case, the presence of Asp (i.e. progressive) morphology requires the projection of a two-tiered

syntactic structure [AspP [VP]]. Thus following for instance Chomsky (1995), we obtain the tree in (18) for sentence (14a).

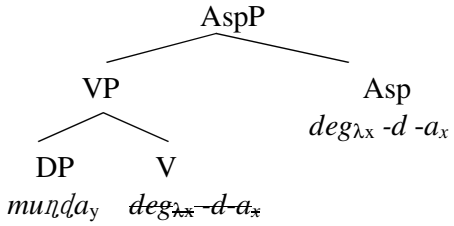
(18)



In (18), the lower VP tier is similar to that postulated for perfects, with *muŋḍa* 'a boy' satisfying the internal argument slot of the predicate. However the extra Asp structure allows a further argument to be introduced as Spec of AspP, namely *o* 'he' in (18). This is interpreted as the external argument, i.e. as the argument (causer or other) applied to the elementary VP event, defined by the predicate and its internal argument. The phi-features inflection *–a* in turn composes not with the verb base but with the V-Asp complex – which means that it picks up the argument introduced by Asp, here the external argument. Therefore the *o* pronoun and the *–a* inflection are in a local identity, i.e. agreement, relation, licencing the fact that they concur to the lexicalization of the same argument slot.

On the other hand the Asp layer of structure introduced by *–d-* morphology is always present in the progressive, including in the progressive of unaccusatives, where the single argument is discharged within the VP, and the Asp layer does not introduce any argument. The phi-feature inflection *–a* picks up the sole argument in the structure and local identity ('agreement') holds between the phi-features inflection and the internal argument, as in (19).

(19)



On the basis of a pronominal construal of agreement morphology we correctly expect that the latter is sufficient to carry reference to the 3rd person as indicated in (20). In other words, under the present account, pro-drop in (20) need not involve any empty category DP.

(20) a. kita:b paɾ-d-a/i a

book.sgf.Abs read-Progr-msg/fsg be.Pres

'S/he is reading the book'

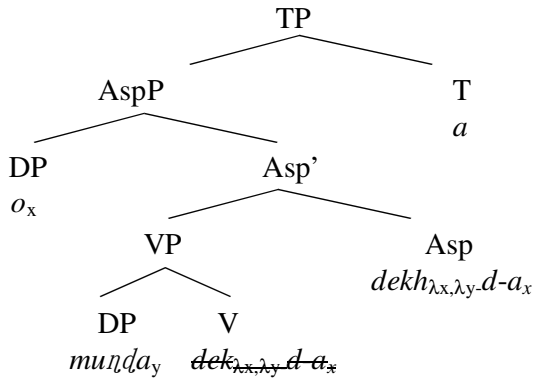
b. sɔn-d-a/i a/si

sleep-Progr-sgm/sgf be.Pres/ Past

'S/he is/was sleeping'

Throughout the discussion we have imputed agreement patterns in Punjabi to the internal organization of the predicate, without calling the TP layer into play. The TP layer is fairly obviously realized in Punjabi by the 'be' auxiliary, as for instance in (21), but as far as we can tell, the auxiliary does not determine either case or agreement.

(21)



As already commented at the end of section 2.1, a construal of the discussion that precedes in (fairly) canonical minimalist terms is also possible. Adding an Asp layer of structure in progressive sentences means that the agreement probe is associated with Asp – which on locality grounds picks up an external argument, or an internal argument (the argument of V) if there is no external argument (e.g. Kalin and van Urk 2014)

2.3 Conclusions on the aspectual split

In this section, we have suggested a formalization of the ergativity split under which perfects reflect a somewhat more elementary organization of the predicate than progressives. We surmise that the perfect participle in languages like Punjabi is a VP predicate, essentially displaying the same internal complexity as an NP or AP predicate. Only a bare VP predicate is needed in order for the perfect reading to be obtained. By contrast, the progressive participle has a more complex internal

configuration including an Asp head introducing the external argument, whereas in the perfect the external argument is introduced by the ergative *–ne* 'case' (on which more in section 3). In the progressive, transitivity is built into the structure by Asp – which means that both subject and object can be introduced as bare DPs.

It should be noted that the idea that ergative alignments corresponds to a somewhat more elementary organization of the predicate, or the sentence, than nominative alignments has been consistently explored in recent generative work, starting with the influential proposal of Laka (2006) that nominative alignment implies a biclausal structure in Basque (cf. also Coon and Preminger 2013). Baker and Atlamaz (2013), working on Kurdish, implement this idea within a framework involving a three-layered Voice-v-V structure. For them perfect is like passive and involves a non-phasal v. The conceptualization of the aspectual split perhaps closest to ours is proposed by Nash (2014) based on Georgian data. Nash adopts a canonical two-layered structuring of predicates, namely v-V. Aorist aspect is characterized just by the v-V structure and all arguments are introduced within this structure (we will return to the ergative in section 3). By contrast, imperfective aspect is introduced by a specialized aspectual node (Event), which is also responsible for licencing the external argument of transitives; in this respect Nash thinks of the Event node as akin to Voice in the sense of Harley (2013). What we want to stress is that Nash concludes that "the deficient perfectivity of sentences in Georgian aorist … is rather a result of the absence of any Aspect category in the clausal functional structure". In the perfect "the event is just named without referring to the specifics of its internal temporal organisation as if it were "nominalised" in some sorts". Differences between the two models will emerge in the treatment of ergative, which for Nash is a dependent case in the sense of Marantz (1991) assigned in vP, while for us it is an oblique, in fact not involving a v projection (section 3).

Importantly, the contrast between the various aspectual alignments is ascribed here directly to the overt morphological constituency of the participles involved as they project to the syntax. In other words, we have adopted a categorial organization which reflects the overt morphological structuring of the language, so that the external argument is introduced by progressive Aspect, not by some *v* or Voice category dedicated as an external argument introducer. A fortiori, there is no evidence of a biclausal organization in progressives.

The focus of the present work is on the agreement and case alignments triggered by the different aspectual structures postulated here – and specifically on the nature of the oblique subject of perfects. Thus our conclusions on the aspectual organization of split ergativity languages are led by our analysis of case and agreement primitives, rather than by the analysis of aspectual interpretation in itself. The basic aspectual distinction is between an event concluded within the

reference time of the sentence and an event not concluded within the reference time of the sentence (Smith 1991). In Punjabi, as in many other languages (according to various literature quoted), perfect interpretation (i.e. boundedness of the event) corresponds to a simple organization of the predicate (NP-like).

Whether UG includes a universal template of invariable functional categories is an empirical issue. From a strictly theoretical point of view, it is easy to see what the appeal of universal invariant sequences of categories is. From a learnability point of view one could argue in particular that the task of the child who learns a language is considerably facilitated, to the extent that s/he only needs to figure out which part of the structure to pronounce. This argument however only holds as long as the PF interface is disregarded; the realizational view of the lexicon that this schema of explanation requires (e.g. DM), creates opacity at the morphophonological interface, that arguably impedes rather than facilitating the learner's task. What we propose here is a different picture of learnability where categorization and syntax are not necessarily universal, allowing for a degree of transparency at the PF interface (and a projectionist view of the lexicon). Syntax does not build interpretation but only restricts it; the universality of the cognitive component determines the universality of representations at the interpretive interface (syntax disambiguated and enriched).

3. Punjabi: The ergative and other oblique cases

Here we take ergative to be an oblique case – of which it displays the typical morphological makeup. Thus in the masculine, which has a residual case inflection, the *–ne* ergative suffix attaches not to the absolute stem, but to the oblique-inflected stem, exactly like the *–nu* suffix (dative, DOM) and the *–de* suffix (genitive). If so, the nature of ergative case depends among other things on the larger issue of how to treat oblique cases. We will consider complement obliques in section 3.1 and the ergative in sections 3.2-3.3, arguing against its treatment as an instrumental/agent case and in favour of a treatment as a 'possessor' case (part/whole or location).

3.1 The dative and the genitive

The *–nu* suffix of Punjabi can be identified with the conventional dative in that it lexicalizes the second internal argument of ditransitives, i.e. the goal. As we may expect for an oblique complement, this is independent of perfect (ergative) vs. progressive (nominative) alignment, as

shown in (22) and (23) respectively.

(22) a. mɛ: ti-nnu kita:b din-d-i (a)
I.Abs(f) you-Obl book.Abs.fsg give.Progr.fsg be.Pres
'I give you the book'

b. tu: kəmidʒə o-nu pe:dʒ-d-a/-i a
you.Abs(m/f) shirt.Abs-fsg he-Obl send-Progr-msg/-fsg be.Pres
'You are sending the shirt to him'

c. o mi-nnu/una-nu kita:b din-d-i/-a a
s/he.Abs me-Obl/they-Obl book.Abs.fsg give-Progr-fsg/-msg be.Pres
'S/he is giving the book to him/me/them'

(23) o-ne kita:b ditt-i (si) una-nu
s/he-Erg book.Abs.fsg give.Perf-fsg be.Past they-Obl
'S/he gave the book to them'

For obliques in general, we embrace the classical view that cases are relations, i.e. elementary predicates, essentially equivalent to Ps, as originally proposed within a formal model by Fillmore (1968). Indeed elements like Punjabi *–nu* (or *–ne*) are routinely referred to as (case) postpositions. Dative, as the second internal argument of ditransitives in examples of the type in (22)-(23), has been connected to possession in the formal literature, at least since Kayne (1984). In other words, 'I give John a book' is roughly 'I give [John HAS a book]' (cf. Pesetsky 1995, Beck and Johnson 2004, Harley 2002). Following Belvin and den Dikken (1997), we construe possessors as 'zonally including' the possessee. Following Manzini and Savoia (2011a), Franco et al. (to appear), we notate the 'inclusion' (or part-whole) relation as (⊆), and since relational content is generally carried by Q elements in DPs (as in generalized quantifier theory), we label dative as Q(⊆). In terms of the Q(⊆) characterization of datives, the structure of a sentence like (22a) will take the form in (24). The *–nu* dative postposition introduces a possessor/inclusion relation which takes as its internal argument the DP to which it attaches, 'you' in (24), and as its external argument a DP in its immediate domain, 'book' in (24). What the dative case, or more properly the dative elementary predicate says is that 'the book' is in the inclusion zone (possession) of the hearer 'you'.

(24) mɛ: ti_y $[_{Q(\subseteq)}$ $nnu_{\lambda x \lambda y}]$ $kita:b_x$ dindi

As one may expect on the basis of the analysis in (24), Punjabi *–nu* provides not only the

lexicalization of dative possessors in ditransitive sentences, but also in sentences with a nominal predicate like (25), where possession includes that of physical or mental states. Thus 'I have a fever' is literally rendered as 'to me is a temperature'.

(25) a. muɳḍ-e-nu / ku'ɾ-i-nu/ mi-nnu/ ti-nnu bukhar/pokh/dhar a
boy.msg.Obl-Obl/girl-fsg.Obl /I-Obl/you-Obl fever/hunger/fear be.Pres
'The boy/the girl/I/you is/are feverish/hungry/afraid'

b. oval-i kita:b mi-nnu pəsand a-i
that-fsg book-Abs.fsg me-Obl like come.Perf-fsg
'I came to like that book'

In short, we impute an interpretive content to the descriptive 'dative case', namely (⊆). This content is predicative, and it can be realized by prepositions (English 'to'), by verbs (English 'have') and by nominal inflections (Punjabi *–nu*). The (⊆) content is also primitive – but it is not a 'case'; it is an elementary predicate. The inflectional realization of the (⊆) predicate (connecting the argument to which it attaches to the main predicative core of the expression) is conventionally called a case. But in present terms, case is definable at most as the crossing of the more elementary notions of atomic predicate and inflectional realization. This is a fairly traditional stance – which crucially however denies that there is anywhere a primitive property case inscribed in the phi-feature bundles of a D(P). In this sense, it complies with the minimalist reduction of case as outlined in section 1.

Though we have assumed that the fundamental oblique of Punjabi, responsible in particular for datives, is the 'part/whole' (or 'inclusion') relation, possession is often identified with a location, cf. in particular Freeze (1992), Lyons (1967). Butt (2006), writing on Indo-Aryan case, takes the locative (spatial) dimension to be primitive in their definition. However Manzini and Savoia (2011a, 2011b, 2014) argue in favour of the primitive nature of the part-whole relation on the basis of strictly formal considerations regarding the morphological shape of Indo-European languages where oblique and plural (or number) are often given the same lexicalization (e.g. Latin *–s*, Latin *–i*). There is a residual effect of this in Punjabi, where oblique (singular) and plural (absolute) coincide in the masculine.[6]

[6] Every account of natural language must address the proximity of dative and locative specifications. Manzini and Savoia (2011a), discussing the syncretic lexicalizations of dative and locative in Albanian, construe locative as a specialization of the part-whole relation, roughly 'x included by y, y a location', where different locatives introduce of course different (locative) restrictions on inclusion. On these grounds we may expect that possession may be construed as locative inclusion. For instance, Boneh and Sichel (2010), take the part-whole relation to be the conceptual core of partitives (*three of them*) and of inalienable possession (*John's nose*) – however they factor out alienable possession

Moving on from dative, the genitive canonically corresponds to possession, as in (26), and is therefore a candidate for Q(⊆) categorial status in present terms. Note that in Punjabi the genitive yields a person split of sorts, since it is realized as *d-* on lexical nouns, but as *r-* on Participant pronouns. In either instance, the genitive element bears an inflection agreeing with the head noun. [7]

(26) a. muɳɖ-e-d-i/-ĩã kita:b/ kitabb-a
boy-Obl.msg-Gen-fsg/-fpl book.Abs.fsg/ book-Abs.fpl
'the book/the books of the boy'

b. te-r-i/-ĩã kəmiddʒ/ kəmiddʒ-a
you-Gen-fsg/-fpl shirt.Abs.fsg/ shirt-Abs.fpl
'your shirt(s)'

Cross-linguistically, dative/genitive syncretisms are widespread, specifically in Indo-European languages (modern Greek, Albanian, Romanian, class I of Latin, Kurdish as reported in section 5 below), strengthening the conclusion that the genitive has a Q(⊆) characterization as well. Nevertheless in Punjabi 'dative' is lexically different from 'genitive' facing us with the problem of differentiating the various types of Q(⊆) obliques. We propose that the two different lexicalizations *–nu* and *–de/-re* correspond to a contextual sensitivity of the category Q(⊆) in Punjabi. Thus Q(⊆) is lexicalized as *–nu* when attached to sentential projections, while it is lexicalized as *–de/-re* when it is attached to nominal categories, as in (27).[8]

(*John's car*), treated as a locative relation, since in the languages they consider (Palestinian Arabic), material possession is lexicalized by a locative preposition.

[7] The inflection of the genitive DP carrying agreement with the head noun appears to be fundamentally the same as the genitival linkers of, say, Iranian languages (the so-called eafe, cf. section 5 on Kurdish). The ezafe of Iranian languages, which agrees with the head noun and forms a syntactic constituent with the genitive phrase, is a head that precedes the genitive. But while much literature on the ezafe and analogous linker material cross-linguistically connects them to copulas (den Dikken and Singhapreecha 2004) or to case assigners (Larson and Yamakido 2008), we side with a stream of recent literature that treats them as agreements (Philip 2012, Franco et al. to appear for different approaches).

[8] Apart from dative *–nu*, genitive *-de/re* and ergative *–ne* (which will be considered in the next section), other postpositions of Punjabi do not attach directly to the absolute or oblique form of the (pro)noun, but rather to the (pro)noun followed by the genitive morphology, which surfaces in the invariable form*–de/-re*. The *–to* 'by/from' postposition directly selects lexical nouns, but it must attach to the genitive with Participant pronouns, as in (i). The postposition *-nal* 'with' in (ii) attaches the genitive form both with Participant and non-Participant referents. The occurrence of the genitive in postpositional contexts is consistent with the characterization just proposed for it. Indeed recent literature on the internal structure of PPs brings out the existence of both case components (here the genitive *–de/-re*) and of components with lexical/interpretive affinity to nouns, namely the Axial Parts of Svenonius (2006) (here the embedding Preposition).

(i) me-re-to/ saɖɖ-e-to
I-Gen-by/from/we-Gen-by/from
'by/from me/us'

(ii) o-de-nal/ me-re-nal
he-Gen-with/ I-Gen-with
'with him/me'

(27) [muɳɖe$_y$ [$_{Q(\subseteq)}$ d$_{\lambda x \lambda y}$]]i$_x$ kita:b$_x$

Before concluding on obliques, other than the ergative, we must mention that *–nu* shows up not only as the lexicalization of dative (possessor, experiencer, etc.) but also as the Differential Object Marker (DOM) in the sense of Plank (1984), Aissen (2003), as illustrated in (28) for the progressive and in (29) for the perfect. The DOM alignment in (28)-(29) becomes necessary if the internal argument of transitives is animate and definite (or at least one of the two), including pronouns; if so, it shows up with the *–nu* postposition/case. The agreement pattern of the progressive (with the external argument of transitives) is not disrupted. In the perfect, the DOM case on the internal argument implies lack of agreement between it and the participle. Since the participle does not agree with the ergative external argument either, it surfaces in an invariable masculine singular form.

(28) a. aval-i tʃabb-i dərvaddʒ-e-nu khol-d-i a
that-Abs.fsg key-Abs.fsg door-Obl.msg-Obl open-Progr-fsg be.Pres
'That key opens the door'

b. mɛ: muɳɖ-e-nu/ bill-i-nu/ti-nnu dekh-d-i a
I.Abs(f) boy-Obl.msg-Obl/cat-fsg-Obl/you.-Obl see-Progr-fsg be.Pres
'I am seeing the boy/the cat/you'

c. mɛ:/ tu: o-nu dekh-d-a/i
I.Abs/you.Abs him-Obl see-Progr-msg/fsg
'I/you(m./f.) am/are seeing him'

(29) a. muɳɖ-e-ne roʈʈ-i-nu khadd-a ni
boy-Obl.msg-Erg bread-fsg-Obl eat.Perf-msg Neg
'The boy did not eat the bread'

b. o-ne mi-nnu/ti-nnu dekkh-ea
s/he-Erg me-Obl/you-Obl see.Perf-msg
'S/he saw me/you'

c. kutt-e-ne mi-nnu dekkh-ea
dog-Obl.msg-Erg I-Obl see.Perf-msg
'The dog saw me'

The DOM case is traditionally taken to be an accusative and glossed as such. However, at

least morphologically the DOM case of Punjabi is not an accusative. Indeed it attaches to the same oblique stem as all other oblique postpositions in Punjabi – besides coinciding with the (goal, experiencer etc.) dative. One may think this latter fact to be a mere matter of morphophonological coincidence – except that across the Indo-European languages the expression of DOM systematically coincides with that of the dative. This is true in the Romance languages, where dative and DOM are introduced by the preposition *a* 'to', in Hindi, where the relevant postposition is *–ko* (e.g. Mohanan 1994) or in many Iranian varieties, where DOM and dative are both expressed by the postposition *–ra*/*–re* (e.g. Mazandarani, Lecoq 1989). An obvious argument in favour of the oblique status of DOM is the fact that it is incompatible with agreement in the perfect, e.g. in (29). Anand and Nevins (2006) indeed stipulate the invisibility of oblique case to agreement (as a parameter).

Manzini and Savoia (2014), Manzini and Franco (to appear), propose that the DOM dative introduces a relation between the animate/specific internal argument and the V elementary event. This corresponds to the structure in (30) for a sentence like (28b), where the animate and definite DP *muɳɖe* 'the boy' is indeed attached to the core of the sentence by the Q(⊆) elementary predicate, lexicalized by *–nu*. Interpretively, the argument that *–nu* attaches to has in its domain of inclusion not another DP but the V event *dekh(da)* 'see(ing)'. To be more precise, if we make reference to the decomposition of predicates into a light verb and a stative (nominal) component (i.e. 'see' as 'have sight (of)', 'help' as 'give help (to)', 'call' as 'make a call (to)' etc.) the internal argument is introduced as a possessor of the embedded elementary predicate (rather than a a theme of the complex predicate).[9]

(30) mɛ: $\text{muɳɖe}_{y}\ [_{Q(\subseteq)}\ \text{nu}_{\lambda x,\lambda y}]\quad \text{dekhda}_{x}$

Informally, what the DOM phenomenon amounts to (in Punjabi and crosslinguistically) is the requirement that animate/definite DPs cannot be introduced within VP as themes. We provide a schematic representation of this generalization in (31); in (31) we stipulate among other things that the oblique embedding of definite/animate DPs only holds in structures with an external argument. Therefore internal arguments of unaccusatives couldn't show up as DOM obliques, when they are animate/definite. This suggests that the gist of DOM is not to insure that specific/animate arguments do not have a theme attachment – rather it is to insure that specific/animate arguments have an attachment as high (or higher) in the sentence as any other argument. The theme of unaccusative

[9] Manzini and Franco (to appear) taking the usual approach in minimalist models associated the light verb component of transitive and unergative verbs with a syntactic v projection. We instead assume that the [v-V] structure is internal to the V head. Cf. fn. 11

verbs, despite being an internal argument, is also the highest argument in its structure and is therefore excluded from the necessity to undergo DOM.

(31) *DOM (Punjabi)*
EA [[*(⊆) definite/animate] V]

The proposal in (31) as to the oblique nature of the DOM makes the prediction that DOM structures will behave as unergatives rather than as transitive with respect to agreement in the perfect. Thus the absence of a lexicalized internal argument triggers what we have called the expletive inflection.

3.2 The ergative

Let us consider next ergative *–ne*. A tempting hypothesis is that in the perfect, the ergative element is a counterpart of the Voice functional head, responsible for introducing the external argument (Harley 2013). Both external and internal reasons militate against this. The historical literature debates the etymology of *–ne* ("obscure" for Montaut 2004), connecting it most often to the Sanskrit instrumental. However Butt (2006), Butt and Ahmed (2011), Verbeke and de Cuypere (2009) argue that a much better origin is to be sought in the *–ne* dative still preserved in some Indo-Aryan languages, for instance Haryani as in (32). The *–ne* postposition is seen to lexicalize the external argument of the perfect (the ergative) in (32a), the goal dative in (32b) and the DOM case in (32c). The cooccurrence of an ergative subject with a DOM object in the perfect yields a double *–ne* pattern in (32c). Indeed Butt and Ahmed mention the similarity of Punjabi *–nu* and *–ne* as suggestive of a common etimology. If we maintain that dative/DOM instantiates Q(⊆), we are led to conclude that in a language like Haryani in (32), ergative is nothing else than a 'possessor' (of the event), recalling proposal made for Iranian languages by Benveniste (1966), Montaut (2004) among others.

(32) a. sad:h nae bud:hiaa ki jhu˜pr:ii kii kun mae laat maaryi
Sadhu Erg old.lady Gen cottage Gen corner in leg hit
'The Sadhu kicked the corner of the old lady's cottage.'

b. yaah bi raam pyaarii nae e de diye
this.Pl too Ram Piyari Dat Prt give give.Imp

‘Give these to Ram Piyari too.’

c. mAn-ne sAhAb-ne mar-a
I-DOM Sahib.msg-Erg hit.Perf-msg
‘The Sahib hit me.’

Haryani (Butt and Ahmed 2011: 561-2)

More to the point, there is internal evidence against ergative as an instrumental/agent case from modal constructions expressing necessity. In Punjabi these are based on a non-finite form of the verb traditional called the infinitive optionally followed by the auxiliary ‘be’. The case and agreement alignment of transitives and unergatives is the same as in the perfect. Thus, as seen in (33) the internal argument is in the absolute form and the infinitive agrees with it in number and nominal class; the external argument is in the ergative. What is not expected is that these constructions also present the sole argument of unaccusatives (an internal argument) in the ergative, as illustrated in (34); the verb agreement is in the invariable masculine singular – as always when only oblique arguments are present. The evidence in (36) is sufficient in itself to exclude that *–ne* is connected to the expression of external arguments.

(33) a. muɳɖ-e-ne rotʈ-i kha-n-i a/ si
boy-Obl.msg-Erg bread-Abs.fsg eat-Inf-fsg be.Pres/be.Past
‘The boy is/was to eat the bread’

b. una-ne dərwaddʒ-a/-e kol-n-a/-e
they-Erg door-Abs.msg/-mpl open-Inf-msg/-mpl
‘They must open the door(s)’

c. muɳɖ-e-ne/ o-ne dɔr-n-a/ sɔ-n-a (a/si)
boy-Oblmsg-Obl/he-Obl run-Inf-msg/sleep-Inf-msg be.Pres/be.Past
‘The boy/he has/had to run/sleep’

(34) a. muɳɖ-e-ne/ muɳɖ-ea-ne ɔ-n-a/ dig-n-a
boy.Oblmsg-Erg/boy- Obl.mpl-Erg come.Inf-msg/fall-Inf-msg
‘The boy/the boys must come/fall’

b. kur-i-ne/ kur-ĩã-ne ɔ-n-a/ dʒa-n-a
girl-fsg-Erg/girl-fpl-Erg come-Inf-msg/go-Inf-msg
‘The girl/the girls must come/go’

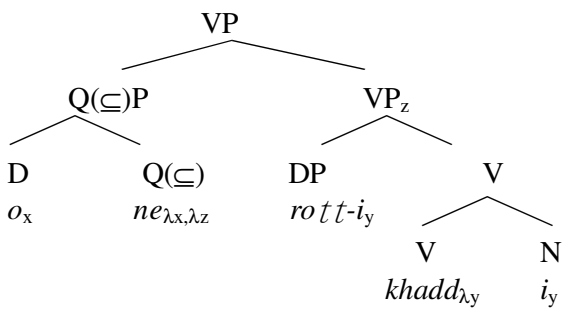
The idea that ergative may be an instrumental/agent case strictly connects to the traditional

idea that the perfect is passive-like, hence essentially a Voice phenomenon. This idea is endorsed by Baker and Atlamaz (2013), writing on Kurmanji Kurdish, though they otherwise assume that the oblique subjects seen in the perfect are simply defaults. They implement the idea by assuming that *v* (embedded under Voice) is a phase head in the progressive (active) while *v* is non-phasal in the perfect (passive). This determines the different distribution of agreement and case, which we will summarize in section 5. Yet, apart from any theoretical consideration, in Punjabi the passive, illustrated in (35), has quite a different organization from the perfect.[10] In particular, perfect and passive are seen to have lexicalizations that are not even partially overlapping, since the verb in (35) is in the root form (from which the infinitive is formed). Furthermore, the agent is introduced by the post-position *–to*, excluding any semantic link between ergative *-ne* and *by*-phrases.

(35) aval-i kita:b sar-e muɳɖ-ea-to hameʃa paɾ hun-d-i a
that-fsg.Abs book.fsg.Abs all-mpl boy-mpl.Obl-by always read.Inf be-Progr-sgf be.Pres
'That book is always being read by all the boys'

We conclude that the literature drawing a close parallel between ergativity and possession is substantially correct. According to section 3.1, the same inclusion/possessor category Q(⊆) is lexicalized as *–de* (the conventional genitive) when embedded in DPs and as *–nu* (the conventional dative/DOM) when embedded under VP. If so, the same category Q(⊆) characterizes *–ne*, i.e. the descriptive ergative, both in perfects and in necessity contexts. Let us focus on the former. If we combine the proposed characterization for the ergative argument with the structure of the perfect VP in (8), we obtain (36) as the structure for example (5b). We again treat Q(⊆) as an elementary predicate, with two argument places. The argument 's/he', to which Q(⊆) morphologically attaches is interpreted as including (locating etc.) an event state, represented by the VP ('eaten the bread'); the latter is effectively the second argument of Q(⊆).

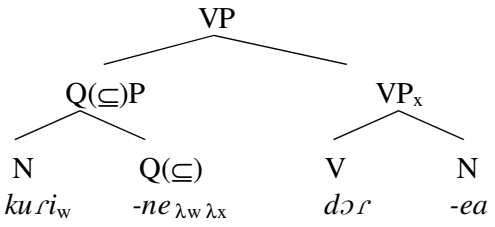
(36)



[10] Passives in Punjabi typically involve the auxiliary *ge-* 'went'. In (35) we display an especially elementary example, sufficient to make the point in the text.

In other words, in these languages we can identify the conventionally labeled ergative with the fundamental oblique predicate, embedded here as a VP-external argument.[11] The configuration underlying unergative perfects is essentially the same as in (36). In particular the external argument is attached to the predicative core via the ergative postposition *–ne*, corresponding to Q(⊆), as shown in (37) for example (12a).

(37)



As already noted in the discussion surrounding (12), in the absence of any internal argument the perfect participle of unergatives surfaces with an invariable masculine singular inflection *–(e)a*. We assume, as is fairly routinely done, that an unergative predicate is in fact a concealed transitive resulting from the incorporation of a nominal constituent into a verbal head (Hale and Keyser 1993). In particular, the invariable (non-agreeing) form of the participle inflection *–ea* in (12) is the counterpart of an expletive pronoun, picking up the nominal object entering in the lexical formation of unergatives.

In (33)-(34) we used data from necessity sentences to argue that *–ne* (the ergative case) could not simply be identified with an external argument case (cf. also fn. 11). For the sake of completeness we shall consider whether the same data are compatible with the Q(⊆) characterization proposed here. It is important to note that the necessity meaning is not intrinsically associated with the lexical verb form in (33)-(34), i.e. the so-called infinitive. In particular, the infinitive appears in control environments where it simply introduces an irrealis modality, as in the examples in (38)-(39), where it is embedded under 'want'. Its distribution in these examples is indeed reminiscent of an English (or Romance) infinitive. For ease of processing we have enclosed the relevant 'infinitival' portion of the sentence between square brackets. With transitive infinitives, the internal argument may be introduced in the absolute form – and the verb agrees with it, as in

[11] As already indicated in fn. 9, the characterization of obliques adopted here is compatible with the conventional representation of transitive structures as including two syntactic heads v-V. This would mean that the ergative is an oblique assigned in Spec, vP. Taking this line of analysis, more canonical within generative grammar, would imply complicating somewhat our account of the aspectual split. What we would need to assume is essentially Nash's (2014) approach, whereby Asp (or Event in her terms) introduces an argument controlling (or restructuring with) the Spec, vP position. In other words, it seems to us that insistence of the syntactic representation of the v-V structure inevitably leads to considerable complications. To this, one should add the difficulty in unifying Spec,vP ergatives with those assigned in necessity constructions (on which more below).

(38a-b). Alternatively, if the internal argument is introduced as the DOM oblique *–nu*, the infinitive is associated with the invariant masculine singular inflection, as in (38c). In the unergative and unaccusative contexts in (39) the infinitive has again the invariant masculine singular inflection. This points to an underlying organization of the control ('infinitive') sentence parallel to that seen in the necessity examples (33)-(34).

(38) a. o [kuɾ-i dekh-n-i] tʃɔn-d-a/i
s/he.Abs girl-fsg.Abs see-Inf-fsg want-Progr-msg/fsg
'S/he wants to see a girl'

b. kuɾ-i [dərvaddʒ-a kollə-n-a] tʃɔn-d-i a
girl-fsgAbs door-msg.Abs open-Inf-msg want-Progr-fsg be.Pres
'The girl wants to open the door'

c. mɛ: [muɳɖ-e-nu/kuɾ-i-nu dekh-n-a] tʃɔn-d-i a
I.Abs(f) boy-msg.Obl-Obl/ girl-fsg-Obl see-Inf-msg want-Progr-fsg be.Pres
'I want to see the boy/ the girl/ you'

(39) a. kuɾ−i [dʒa-n-a/ ɔ-n-a/ dɔr-n-a] tʃɔn-d-i a
girl-sgf.Abs go-Inf-msg/come-Inf-msg/run-Inf-msg want-Progr-fsg be.Pres
'The girl wants to go/ to come/run'

b. muɳɖ-e [dig-n-a/ dɔr-n-a] tʃɔn-d-e a
boy-mpl.Abs fall-Inf. msg/run-Inf-msg want-Progr-msg be.Pres
'The boys want to fall/ run'

A fairly familiar Western Indo-European language like Latin, has a series of adjectival forms of the verb very similar to those of Punjabi. The present participle (like *–ing* adjectives in English) agrees with the external argument of transitives/unergatives (e.g. *homo ridens* 'laughing man') and the internal argument of unaccusatives (e.g. *sol oriens* 'rising sun'). The perfect participle (as in English) agrees with the internal argument (e.g. *urbs capta* 'captured city', *homo mortuus* 'dead man'). However Latin also has a so-called gerundive, which is an irrealis, with a necessity reading, deontic or epistemic in examples like (40). Like the Punjabi infinitive, the Latin gerundive agrees with the internal argument of a transitive as in (40a), while it is in an invariable form with intransitives (40b). As in Punjabi, the external argument of transitives and the internal argument of unaccusatives appear in an oblique case. Lacking the specialized ergative, Latin resorts to the all-purpose oblique, i.e. the dative. English gerunds, despite their different interpretation, provide a fair insight into Punjabi or Latin necessity forms; thus in *the men's drinking wine* the external argument

turns up in the oblique (genitive), while the internal argument is in the direct case; in *the men's falling (to the ground)* it is the internal argument that turns up in the oblique.

(40) a. hoc mihi faciendum est
This.neuter me.Dat to.be.made is
'I must make it'

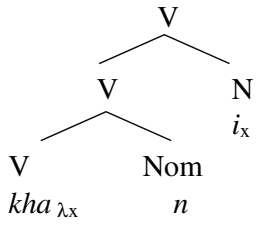
Lucius Annaeus Seneca junior, Epistulae Morales ad Lucilium 48.1.4

b. hominibus moriendum est enim omnibus
men(dat) to.die is indeed all(dat)
'All men must indeed die'

Cicero, Tusculanae Disputationes 1.9.15

We adopt for the Punjabi infinitive a structure very similar to that of the progressive (17). Where the progressive has an Asp layer, however, the infinitive appears to have a modal Mod layer. However if the two structures were entirely parallel we would expect that projecting the verb functional structure onto the syntactic template should yield an alignment of arguments parallel to that of progressives. In part this is correct, since the external argument of transitive and the sole argument of intransitives pattern alike; however it is far from obvious why they would show up in an oblique case – unless we assume that Mod selects for oblique. An alternative possibility is that exactly as for gerunds in English (Abney 1987), the infinitival inflection is a nominalizer Nom – forcing the subject layers to be lexicalized by an oblique. In reality, there are elements that lead us to lean towards the Nom analysis, as in (41).

(41)



That Punjabi infinitives are nominal is confirmed by the fact that they can bear their own case marking (with an invariant masculine singular inflection). The fact that they still take an absolute internal argument confirms that they have an inner VP level of structure, very much like English gerunds. Thus control examples like (38)-(39) alternate with examples like (42) below. Similarly under a different embedding verb ('think' rather than 'want'), the same alternation is

observed, as in (43). [12]

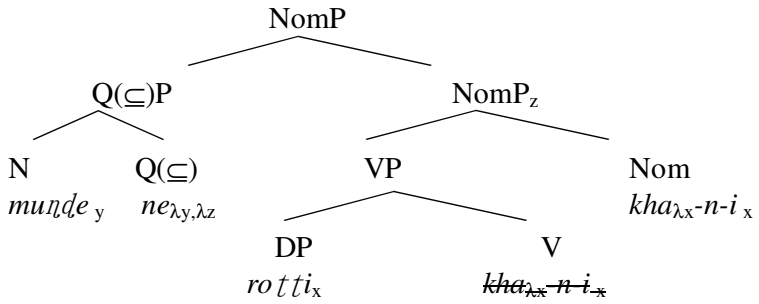
(42) o(ho) tʃɔn-d-e a kita:b paɾ-n-e-nu
they want-Progr-mpl be.Pres book.Abs.fsg read-Inf-msg.Obl-Obl
'They want to read the book'

(43) a. o-ne sottʃ-ea (a) kita:b paɾ-n-i
s/he.Obl think.PastPart.msg be.Pres book.Abs. fsg read.Inf.fsg
'S/he thought of reading the book'

b. o-ne sottʃ-ea (a) kita:b paɾ-n-e-nu
s/he.Erg think.Perf-msg be.Pres book.Abs.fsg read-Inf-Obl.msg-Obl
'S/he thought of reading the book'

When the morphological structure in (41) is projected onto a syntactic tree, we obtain structures of the type in (44) for the transitive example (33a). The Nom layer of structure, exactly like the Asp layer of structure in (18) introduces the external argument of the transitive verb. The basic difference between (44) and (18) resides in the oblique (ergative) nature of the Spec, NomP position. Though we may assume that the phi-features inflection is associated with Nom (as with Asp in (18)), it will be unable to agree with the oblique subject – leaving only agreement with the internal argument as a possibility. The internal argument, licenced by verb agreement indeed surfaces in the absolute form.

(44)



Unaccusative examples like (34a) have the structure in (45). What must be kept in mind is

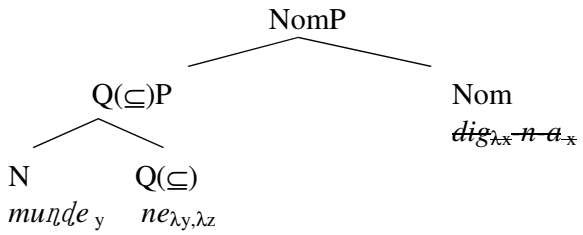
[12] The parallelism with Latin again holds. The same verb form that appears in the 'gerundive' examples in (40) can be construed with its own case in examples like (i), traditionally called 'gerunds'. In (i) the case on the gerund ('doing') is the genitive, while the object of the gerund ('something') is in the accusative; the gerund bears an invariant neuter singular inflection.

(i) consilium aliquid faciend-i
counsel something doing-Gen
'the decision of doing something'

Cicero, De Inventione, 1.36.12

that the Nom layer of structure in (45), like the Asp layer of structure in (19) induces the alignment of the sole argument of all intransitives with the external argument of transitives – except that with so-called infinitives the alignment is on the ergative. Since the verb inflection is associated with Nom in turn, it can't but take the invariable (expletive) masculine singular form with intransitive, where the sole argument must be oblique.[13]

(45)



Finally, the control structures in (38)-(39) and (42)-(43) bring to the fore the fact that the ability to bind PRO yields the same results for nominatives in the progressive tenses, e.g. (38)-(39), and ergative in the perfect tenses, e.g. (43). As it may be expected, reflexives return the same results as control, i.e. the reflexive in (46) can equally be controlled by the absolute external argument in (46a-a') or by the ergative in (46b). Note that in the progressive (46a-a') the reflexive agrees in phi-features with the absolute form, while with ergative external arguments in (46b), the reflexive appears in an invariable form coinciding with the feminine singular.

(46) a. kuɾ-i appe-i kita:b par-d-i a
girl-fsg.Abs self-fsg book. fsg.Abs read-Progr-fsg be.Pres
'The girl is reading the book by herself'

a'. mund-a app-e kita:b par-d-a a
boy-msg.Abs self-msg book. fsg.Abs read-Progr-msg be.Pres
'The boy is reading the book by himself'

b. mund-e-ne / kuɾ-i-ne appe-i idd-a kitt-a
boy-msg.Obl-Erg/ girl-fsg-Erg self-fsg this-Abs.msg do.Perf-msg
'The boy/the girl did this by her/him-self'

What appears to be relevant for reflexive binding and control, then, is some notion of outer argument in predicate structure (external argument of transitive, internal argument of unaccusatives), independently of the particular case and agreement alignment may be determined

[13] When the infinitive takes an overt subject as a complement of a verb, the subject is in the genitive, according to Bhatia (1993: 179). This strengthens the argument in favor of the nominal property of the infinitive. What determines the alternation between ergative and genitive obliques must be the context of embedding.

by aspectual or other factors. We may want to identify this with the notion of subject (cf. the survey of Aldridge 2008). Furthermore, as we already commented in relation to example (21), nothing in the present discussion stands in the way of some more rigid structural encoding of subjects in structural terms, say as [DP, TP]; under usual locality (phases or other) considerations, it will be precisely the outer argument (in the sense just defined) that raises to such a position. For purposes of case and agreement however the TP layer appears to be at best irrelevant in ergativity split languages.

3.3 Conclusions on ergativity

Our core proposal concerning ergative case is that while progressive sentences have structures like (18)-(19), where the external argument is attached to an Asp verbal layer of structure, perfect sentences have the structure in (36)-(37), where the external argument is attached to the main sentential spine via the 'ergative' elementary predicate, in reality an inclusion-of-the event (or possibly location-of-the event) oblique.

The crucial property of the perfect is that it denotes a property. Thus perfects introduce the internal argument of the predication; any additional argument, and specifically the external argument, can only be introduced as an oblique – i.e. ultimately as a possessor, since we take Q(⊆) to be the fundamental characterization of obliques. On the contrary, the progressive aspect corresponds to an event, introducing an eventive organization of the sentence, corresponding to the projection of a further Asp level of structure. Given reasonable assumptions about alternative ways of introducing external arguments, namely via oblique cases or via layered verbal structures, we predict the basic shape of the aspectual split, whereby the progressive presents a nominative-accusative alignment (i.e. two direct cases).

No uniform notion of 'case' is definable on the basis of our analysis. Indeed the *–i* inflection of *rʊʈʈ-i* in (41) or the *–a* inflection of *muɳɖ-a* in (24) contain no case property. Rather *rʊʈʈ-i* results from merger of the predicative content coinciding with the nominal stem, with an *-i* inflection externalizing simply nominal class (and similarly for *muɳɖ-a*). Given the account of oblique cases in this section, Punjabi literally alternates between nominal inflections of the type more familiar from, say, Romance languages (e.g. Italian *ragazz-o* 'boy-nominal class') and nominal inflections/postpositions that have predicative/operator content. We thus agree with Chomsky that the traditional notion of case is not a good primitive for a formal grammar.

Consequences for the more general issues raised in section 1 are also worth mentioning. The

account of Punjabi represented by the progressive structures in (18)-(19) vs. the perfect structures in (44)-(45) does not obey Uniformity in the sense of Culicover and Jackendoff (2006), since the same predicate-argument complex can be introduced by a two-layered predicate or by a one-layered predicate plus an oblique 'case' (in reality an elementary predicate) on one of the arguments. In other words, there isn't a universal categorial template whose pronunciation is the only possible dimension of variation, since even within the same language, the same event structure can be conveyed by different syntactic shapes of predicates.

4. Punjabi: The Person split

For the sake of completeness, another aspect of the syntax of Punjabi not dealt with so far needs to be explicitly investigated, namely the person split observed within the perfect, whereby 1st /2nd person (1/2P) external argument are found in the absolute form, rather than in the ergative case obligatory with 3rd person referents, as illustrated in (47) with transitive verbs and in (48a) with an unergative. In fact, the same Person split extends to the other context where ergative is lexicalized on 3rd person referents, namely the modal necessity context constructed involving the infinitive (section 3.2), as illustrated in (49).

(47) a. mɛ: kita:b/ kitabb-a pə'ɾ-i/-ĩã si
I.Abs book.fsg.Abs/book-fpl.Abs read.Perf-fsg/-fpl be.Past
'I read the book/ books'

b. mɛ:/ o-ne/ muɳɖ-e-ne (ek) pət'thərə dekkh-ea/-e
I.Abs/he.Erg/boy-Obl.msg-Erg (one) stone.Abs.msg/mpl see.Perf-msg/-mpl
'I/he/the boy saw a/the stone/(the) stones'

c. appa/ tusi muɳɖ-e dekkh-e si
we.Abs/you.pl.Abs boy-Abs.mpl see.Perf-mpl be.Past
'We/you saw the boys'

(48) mɛ:/appa boll-ea si
I.Abs/we.Abs talk.Perf-msg be.Past
'I talked'

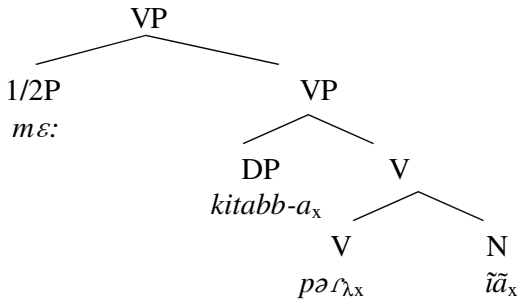
(49) mɛ:/ tu:/ appa sɔ-n-a/ dɔɾ-n-a a/si
I.Abs/you.Abs/we.Abs sleep-Inf-sgm/ run-Inf-sgm be.Pres/Past
'I/you/we have/had to sleep/run'

The fact that the 1/2P external argument appears in the absolute form does not change the agreement alignment of perfects (or of necessity forms). Thus in transitive examples like (47), the perfect agrees with the internal argument, while in unergatives like (48)-(49) it bears the invariable (expletive) masculine singular agreement. It is worth stressing that the same is true in transitives where the internal argument is introduced by the DOM oblique element *–nu*, as in (50). This excludes that at least in Punjabi agreement is multidirectional and/or governed by an optimization device (cf. Cyclic Agree, Bejar and Rezac 2009). If multidirectional Agree and optimization applied in (50), given that agreement with the oblique DOM argument is impossible, one would expect agreement to take place with the 1/2P element in the absolute form – but this does not happen. Vice versa note that the absolute case on the 1/2P arguments in (50) is possible (and necessary) even though it does not agree with the verb. This represents a further counterargument to the idea that it direct cases must be licenced by Agree (as predicted by Chomsky 2001, cf. also Baker and Vinokurova 2010).

(50) mɛ:/ appa/ tu:/ tusi o-nu/ una-nu dekkh-ea
I.Abs/ we.Abs/you.Abs/you.pl.Abs him-Obl/they-Obl see.Perf-msg
'I/we/you saw him/them'

>From the present point of view, all aspects of the structure of examples (47)-(50) must be as already detailed for other perfects in (36)-(37) – except that the external argument is not associated with the Q(⊆) elementary predicate in terms of which we model ergative case. Putting together the structure of the transitive predicate in (36) with the absence of Q(⊆) ergative case on the external argument, we obtain a structure of the type in (51) for example (47a), where we adopt the conclusion that Participant argument have a distinct categorial signature (cf. much cartographic literature, e.g. Bianchi 2006).

(51)



The question is how the absolute 1/2P form is licenced syntactically and interpretively as an external argument – or vice versa why a Q(⊆) ergative case is necessary to licence 3P arguments. There are essentially two types of answer in the literature, making reference directly to the referential properties of 1/2P or relying on the different structural representations they give rise to.

Dixon (1979: 85-86) bases his classical discussion of split ergativity on the 'potentiality of agency' scale, i.e. 1st person - 2nd person - 3rd person - Proper name - Human - Animate – Inanimate. According to Dixon "it is plainly most natural and economical to 'mark' a participant when it is in an unaccustomed role ... A number of languages have split case-marking systems exactly on this principle: an 'ergative' case is used with NP's from the right-hand end, up to some point in the middle of the hierarchy…". Nevertheless DeLancey (1981) observes that languages with so-called ergativity splits, i.e. alternations between the ergative/absolutive case system and the nominative/accusative system, most commonly oppose 1st and 2nd person to 3rd. De Lancey's (1981) explanation is based on notions of attention flow and view point – rather than potential agentivity. The attention flow proceeds from agent to patient in a transitive event. On the other hand, there are at least as many viewpoints as participants in the event. If a speech act participant, SAP, is also a participant in the event, the most natural point of view is the one associated with it. Thus in split ergative systems, if the starting-point of the attention flow **'**is also an SAP, i.e. a natural viewpoint locus, it is so marked by being in the nominative case. Otherwise it must be marked for ergative case, which identifies it as the natural starting-point' (DeLancey 1981: 640).

Nash (1995, 1997) is among early proponents of the encoding of person splits in terms of syntactic hierarchies. In analysing the person ergativity split in Georgian, she concludes that agents in ergative languages correspond to a predicate-internal position, though they are projected to the Spec of a higher category in non-ergative languages. For Nash the definite character of 1/2P pronouns means that they will be 'licenced higher than other pronominal arguments, at a level at which the ergative/ absolutive patterns is blocked' (Nash 1997:137). In other words, 1/2P structures are 'bigger' than 3P ones – exactly like progressive structures are bigger than perfect ones. Coon and Preminger (2013) propose that in languages which display person ergativity splits, 1/2P external arguments determine a biclausal structure, along the lines of Laka 2006, as opposed to the simple structures associated with 3P ones. The latter therefore are compatible with the encoding of transitivity by ergative case – the former require nominative case, to reflect the non-transitive structure of the sentence that embeds them. Here we have already argued that Punjabi offers no empirical evidence for the biclausal analysis of progressive sentences; similarly there is no evidence of a biclausal organization of the sentence with 1/2P subject, except the person ergativity split itself.

We assume that the attachment of 1/2P in the structure in (51) takes place by simple

argument application (via a lambda-operator). The question is why simple lambda-attachment of the external argument, is not available with 3P forcing recourse to ergative case marking (in present terms Q(⊆)). The interpretation of Participants arguments, crucially based on their anchoring to the universe of discourse, can dispense with specialized means of attachment to the structure of the event. Specifically, they can dispense with ergative Q(⊆), given their intrinsic ability to serve as 'inclusion/location-of-event'. 3P referents on the other hand require a specialized morphosyntactic characterization of their role in event.

The proposal that we are putting forward is distinctly shallower than the structural approaches we also reviewed. Yet a treatment of Person splits in terms of structural complexity appears to be empirically unwarranted. As highlighted by Coon and Preminger's discussion, furthermore, the approach that one takes with respect to the Person ergativity split potentially makes different predictions as to its connection with DOM or lack thereof. Coon and Preminger explicitly exclude that Person ergativity splits can be unified with the DOM phenomenon, in other words that they can be seen as a DSM (Differential Subject Marking) of sorts – contrary to the explicit proposal for instance of Dixon (1979), Aissen (2003).

The first part of their argument is that 1/2P vs. 3P splits are not found (or exceedingly rare) with objects. Indeed in Indo-Aryan languages (for instance Punjabi), as well as in Iranian languages (see section 5) and in Romance (e.g. Spanish, van Heusinger and Kaiser 2011), DOM cuts along animacy and/or definiteness lines, as illustrated by Aissen (2003). Yet Italian varieties with a 1/2P vs. 3P split are documented by Manzini and Savoia (2005).[14] What is more, all Romance languages have a strongly asymmetric treatment of 1/2P vs. 3P pronouns in the clitic system. Just to take one example from Italian, 3P clitics have an accusative form, as in (52a), and a dative one, as in (52b); the accusative obligatorily agrees with the perfect participle, while the dative does not. In the 1/2P accusative and dative are not distinct, cf. (52b) and (52c), and neither of them agrees with the perfect participle. One may take data like (52) to be of purely morphological significance. Alternatively, in syntactic terms, the 'syncretism' of accusative and dative on a form which may not agree with the perfect participle suggests that 1/2P clitics undergo obligatory DOM, which in Romance is generally lexicalized as a (non-agreeing) dative (cf. Spanish *a*). Similar considerations apply to the several full pronouns systems in both Romance and Albanian varieties (Loporcaro

[14] Coon and Preminger also draw a parallel between their account of Person ergativity splits and accounts of auxiliary selection according to Person in Central and Southern Italian dialects by Kayne (1993), Cocchi (1999), D'Alessandro and Roberts (2010). For these authors, *have* auxiliary in the 3P depends on an abstract preposition ('to') incorporating into *be*; ParticipantP forms a barrier to this incorporation and *be* auxiliary surfaces in the 1/2P. However, Legendre (2010), Manzini and Savoia (2005, 2011a) show that there are varieties where the person split pattern is maintained (1/2P vs. 3P) – but the auxiliaries are inversely matched (1/2P with *have* and 3P with *be*). Such data suggest that the person split and auxiliary selection really are two independent variables, which can freely recombine. A strong theory enforcing the 'standard' auxiliary split (i.e. 1/2P with *be* and 3P with *have*) appears to be empirically inadequate.

2008, Manzini and Savoia 2011a, 2011b, 2014).

(52) a. L(a) ha vista
her he.has seen.fsg
'He saw her'

b. Le/ ci/ mi ha parlato
to.her/us/me he.has spoken.msg
'He spoke to her/us/me'

c. Ci/mi ha visto
us/me he.has seen.msg
'He saw us/me'

In short, it seems to us that Participant/non-Participant distinctions are not so rare in the object system of Indo-European languages. In fact, they are quite robust, judging from Romance languages – though this depends on not excluding what are traditionally considered morphological data from the range of available evidence. The other leg of Coon and Preminger's argument is that animacy or definiteness splits are not found with subjects. Yet we know that in a familiar language like French, definiteness is crucial in determining whether an internal argument must be raised to Spec, TP and agree with the verb – or it can remain in VP-internal position (the so-called inverted subject position), triggering invariable 3rd person singular agreement on the verb, as in (53). In other words the obligatory full 'nominative' alignment (with the subject in Spec, TP and agreement) is reserved for definites.

(53) a. Les/des enfants sont arrivés
The/some children are arrived
'(The) children arrived'

b. Il est arrivé *les/des enfants
it is arrived the/some children
'There arrived (*the) children'

By common consent, data like (53) show that definiteness is directly relevant for the position (predicate internal or external) and the agreement of subjects. Whether this counts towards establishing a similarity between categorial splits in the alignment of objects (DOM) and of subjects is far from a foregone conclusion. But precisely because of this it seems to us that it further

undermines Coon and Preminger's conclusion that Person ergativity splits are not a DSM phenomenon.

5. Kurdish: the 'decay of ergativity'

Many Iranian languages (though not Persian) are characterized by a similar contrast between a nominative alignment and an ergative one. We already saw in relation to the Indo-Aryan language Haryani in (32) (Butt and Ahmed 2011) that an ergativity split can be observed in the absence of a specialized ergative case – since in Haryani the subject of perfect sentences is introduced by an all-purpose oblique (dative). Kurmanji Kurdish is characterized by an even more elementary case organization, since it has just two possible forms for DPs, best characterized as a nominative/absolute form and as an oblique/objective one. A merely residual case system is found in Sorani Kurdish, where DPs lack case inflections and the ergativity split has a reflex only in the lexicalization of clitic pronouns. In what follows we will consider how the continuity, or discontinuity, between these forms of aspectual split and that of Punjabi, can be captured within the present framework of assumptions. Prima facie, Iranian languages provide direct support the central analysis proposed here, that ergative is essentially a (contextual) differentiation of the basic 'possessor' (inclusion/location) oblique of natural languages.

5.1 Kurmanji Kurdish

Our Kurmanji Kurdish data come from the Bahdînî dialect (cf. fn. 1; for a general description see Thackston 2006a). Bahdînî Kurmanji has a case system which distinguishes a nominative case from an oblique one. In nouns, nominative case corresponds to the uninflected lexical base, therefore to what we have called the absolute form of the noun. A case and agreement alignment split is observed in Kurmanji as in Punjabi. In the present, the nominative lexicalizes the external argument of transitive verbs, as in (54), and the sole argument of intransitives, as in (55); the verb agrees with this nominative argument in person and number. The internal argument of transitives in (54) is in the oblique form. Note that Bahdini Kurmanji has a system of 'tense ezafes' (Haig 2011), i.e. linkers, which also agree with the nominative subject (cf. also Franco et al. to appear).

(54) a. ʒənək jɑ: kamis-i də-ʃʊ-t

woman.Abs Lkr.f shirt-Obl Progr-wash-3sg

'The woman is washing the shirt'

b. ɛz kurk-(æk-)i/ketʃk-(æk-)e: jɑ:/je: də-bin-ım

I.Nom boy-(indef)-Obl/girl-(indef)-Obl Lkr.f/m Progr-see-1sg

'I(f./m) am seeing the/a boy/girl'

c. ɛz jɑ: tæ də-bin-ım

I.Nom Lkr.f you.Obl Progr-see-1sg'

'I(f.) am seeing you'

d. tu je: mən də-bin-i

you.Nom Lkr.m me.Obl Progr-see-2sg

'You(m) are seeing me'

(55) ʒənək jɑ: də-nəv-it

woman.Nom Lkr.f Progr-sleep-3sg

'The woman is sleeping'

In the perfect, nominative lexicalizes the internal argument of transitives as in (56), and the sole argument of intransitives, as in (57), with which the verb agrees in person and number. The external argument of perfect transitives is lexicalized by oblique. Note that there is no difference between unaccusative and unergative contexts, in other words in intransitive perfects like (57) the case and agreement alignment is not sensitive to the internal vs. external argument divide.

(56) a. ʒəŋk-e zɔruk nəχoft/nəχoft-ən

Woman-Obl child/children.Nom cover.Perf-3sg/-3pl

'The woman covered the child/ the children'

b. ʒəŋk-e ɛz nəχoft-əm

woman-Obl I.Nom cover.Perf-1sg

'The woman covered me'

c. mən korek dit-ən

I.Obl boys.Nom see.Perf-3sg

'I saw the boys'

(57) a. aʊ kaft

he.Nom fall.Perf.3sg

'He fell'

b. tu nəvəst-i / aʊ nəvəst

you.Nom sleep.perf-2sg / he.Nom sleep.Perf.3sg

'You have slept/he has slept'

The traditional characterization of the case inflections *–i* for masculine singular, *-e* for feminine singular and *–a* for plural as obliques is supported by the fact that they alone can lexicalize goal (thematic) datives, as in (58). Similarly the possessor in the DP in (59), is in the oblique (genitive); an ezafe, i.e. a linker, is also present, agreeing with the head noun. Finally, the oblique appears as the internal argument of Prepositions, as in (60).

(58) a. aʊ je: partuk-e də-da-ta ʒəŋk-e

he.Nom Lkr.m book-Obl Progr-give-3sg woman-Obl

'He is giving the book to the woman'

b. ɛz jɑ: qalam-i de-da-ma kurk-ɑ:/ketʃk-ɑ:

I.Nom Lkr.f pen-Obl Progr-give-1sg boys-Obl/girls-Obl

'I are giving the pen to the boys/girls'

(59) dest-e ketʃk-e

hand-Lkr.m girl-Obl.f

'the hand of the girl'

(60) bærɑmbær/ ʒer/ lə pəʃt/ lə bən/ sɛr mɛn/ tæ/ kʊrk-i/ ketʃk-e:/ mez-e

in front of/ under/ behind/ before/ on me.Obl/you.Obl/boy-Obl/girl-Obl/table-Obl

The literature generally refers to the Kurdish split as a present vs. past tense one. Descriptively, a verb displays two stems, each of which forms the basis for a full set of tenses, e.g. *bîn* in (54b-d) vs. *dît* in (56c) for 'see'. Specifically, Baker and Atlamaz (2013) point out that the 'imperfective' prefix *dı-* (*də-*) can attach to a past stem, yielding a 'past imperfective'. Sentences containing this form of the verb present the ergative alignment, as shown in (61).

(61) Mı dı- kır

I.Obl Progr- do.Past(3sg)

'I was doing (it), used to do (it).'

(Baker and Atlamaz 2013)

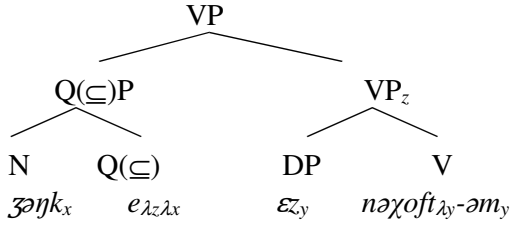
Imputing the nominative and ergative alignments observed in Kurmanji to a temporal (past vs. non-past) split, as implied by the traditional terminology, presents the theoretical drawback that

T is expected to syntactically and interpretively compose with a full event, hence with a complete predicate-argument structure**;** therefore we do not expect it to be able to interact with argument structure. Indeed Baker and Atlamaz propose an analysis based not on the category T but on the category Voice. They construe the present form as bearing active voice and implying a phasal vP; vice versa the past form is passive and corresponds to a non phasal vP. This means that the two base forms of Kurmanji are effectively passive and active. [15] However when it comes to the connection between Voice and the TAM categories, Baker and Atlamaz (2013: fn. 24) only offer the comment that "it seems common to associate passive voice value with past tense value and active voice value with present tense value, at least in IE languages, although we do not know exactly why this is so".

If we want pursue the aspect-based approach to ergativity splits, that we have motivated for Punjabi, we must nevertheless explain how in Kurmanji the lexical base to which we have imputed perfect properties can combine with the *dɪ-* (*də-*) affix in (61) yielding an 'imperfective past'. Nash (2014) suggests that the Georgian aorist, characterized by ergative alignments, is not so much a perfect (bounded aspect) as an instance of neutral aspect, defined by Smith (1991) as a partially bounded aspect (beginning of the event within the reference time, but event potentially continuing beyond). This is certainly compatible with what we know of the adjectival use of perfect participles; for instance *a disputed conclusion (occurred to me)* is not normally 'a conclusion once disputed', but 'a conclusion currently (being) disputed'.

Based on these premises, we tentatively assume that the ergativity split of Kurmanji has the same basic shape as that of Punjabi. Thus we maintain that the organization of the predicate is simpler in the perfect, which in present terms corresponds to a VP. Crucially in the absence of an Asp layer, the external argument is introduced by the oblique case/elementary predicate Q(⊆), denoting a relation between the argument itself and the V(P) event, as in (62) (cf. example (56b)). The agreement on the verb targets the internal argument, which correspondingly surfaces in the absolute/nominative form.

(62)

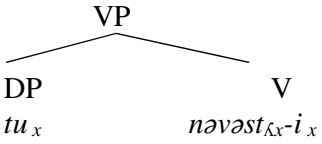


At this point the parallel between Punjabi and Kurmanji is complicated by an independent

[15] Baker and Atlamaz provide an example of a Kurmanji passive (actually what they call a quasi-passive) involving the perfect form of the verb, but as they show, the latter is endowed with a nominalizing suffix. Suffixation of the perfect is also necessary for the formation of passives for instance in the Western Iranian language Masali (Paul 2011: 117).

parameter, interacting with the aspectual split. Though in the discussion that precedes, we have consistently referred to Punjabi as an ergative language, it rather represents an example of a so-called active language – opposing internal arguments (of transitives and unaccusatives) to external arguments (of transitives and unergatives). Kurmanji presents a classical ergative alignment, which opposes the external argument of transitives to other arguments (the internal argument of transitives and the sole argument of all intransitives). In practice, ergative and active alignment differ with respect to how they treat the sole argument of unergatives. We can model Kurmanji unergatives by assuming that the verb inflection lexicalizes the first argument (internal or external) to be syntactically merged. Therefore the structure of the unergative sentence in (63), cf. example (57b), is similar to that of an unaccusative, since the sole argument of intransitives is the first syntactically merged argument.

(63)



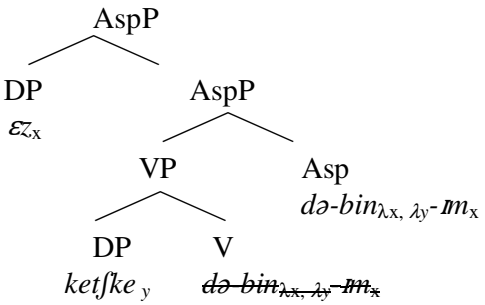
The same generalization about agreement is expressed by Baker and Atlamaz (2013) within a canonical minimalist framework. They assume that an uninterpretable agreement probe on V (or rather *v* in their terms) seeks a goal downward (an internal argument); if none is available (i.e. if the verb is unergative) probing will take place upward.[16] The real difference between the present account and Baker and Atlamaz's (apart from the voice vs. aspect based characterization of the split – on which more below) is that they treat oblique case as a default case. However the oblique case in contexts like (58)-(59) introduces a possession (dative, genitive) relation between the head predicate and a complement. In other words, if there is a default case interpretively, this must surely be the nominative/absolute. Morphology matches interpretation – since it is the oblique that is morphologically instantiated, while the nominative/absolute corresponds to the bare nominal base.

Let us turn to transitives built on the non-perfect (imperfective) verb base, as in (58). If we assume that the internal structure of the predicate is the same as in Punjabi, we obtain the structure in (65) (for example (58b)). If the verb inflection is associated with Asp, it will agree with the outer argument of the predicate, i.e. the external argument in a transitive or inergative structure – or the

[16] It should perhaps be noted that multidirectional probing represents a considerable weakening of minimalist Agree, as originally conceived of by Chomsky (1995). Indeed as outlined by Brody (2006), the novelty of minimalist Agree is that it introduces a probe-goal asymmetry, which brings it closer to movement, than to traditional symmetric agreement. If transferred to the domain of movement, the option of probing upward or downward would however mean that movement can go down as well as up, an option not normally entertained. In other words, though the uninterpretable-interpretable asymmetry is maintained it does not correlate with any other restrictions (notably in the directionality of agreement) making it into an empirically void postulate.

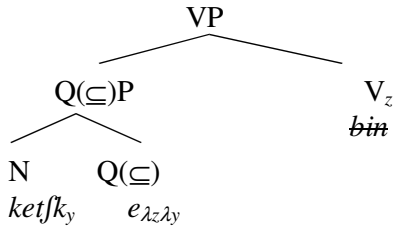
internal argument if the verb is unaccusative. In other word, an agreement inflection on Asp triggers the nominative alignment (external argument of transitives or sole argument of intransitives, as opposed to the internal argument of transitives). In this respect, therefore, Kurmanji poses no difficulty replicating the pattern already studied for Punjabi.

(64)



In the imperfective, as in the perfect, Kurmanji is only partially aligned with Punjabi. Specifically, while in Punjabi the internal argument in a nominative structure can surface in the oblique (*-nu*) case because of DOM – in Kurmanji oblique case marking of the internal argument in structures like (64) is the only admissible option. Extending previous proposals on Punjabi objects, in present terms the internal argument in (64) is attached through the Q(⊆) case/elementary operator, as sketched in (65). The interpretation that we impute to the structure in (65) is the one already outlined for Punjabi DOM objects – namely adopting the Hale and Keyser (1993) characterization of transitives as resulting from the incorporation of an elementary (nominal) predicate into a light verb, the internal argument is treated as a possessor of the elementary (nominal) predicate.

(65)



Recall that Baker and Atlamaz (2013) propose that the so-called oblique case in Kurmanji is a default case. Though this conclusion seems unwarranted both interpretively and morphologically (see above), it is true distributionally, in the sense that oblique case is in exact complementary distribution with agreement, therefore with the absolute/nominative form of the argument. In other words every DP in Kurmanji must either be licenced by agreement (a pronominal copy on the predicate) or by Q(⊆). Given the independent constraints on agreement, this forces the oblique

attachment of internal arguments of transitives, a structure reserved for DOM in other languages. [17]

As we already commented for Punjabi, the predicate internal structures in (62)-(64) relevant for agreement and case do not of course exclude the existence of higher functional structure, in particular of T projections. More to the point, having adopted the elementary Asp-less structures in (62)-(63) for Kurmanji perfects, we must provide an analysis, however schematic, for sentences like (61), where the perfect form of the verb is prefixed by the *dɪ-* (*də-*) morphology, yielding an habitual or progressive interpretation. Because of its co-occurrence with the lexical base of the perfect, we cannot of course identify *dɪ-* (*də-*) with the Asp category responsible for introducing the external argument in non-perfect forms.

Indeed Thackston (2006a) shows that *dɪ-* is in complementary distribution with the prefix *bɪ-* whose nature is clearly modal (subjunctive); furthermore in the present (though not in the past) *dɪ-* is in complementary distribution with the negative prefix. The interaction of the *dɪ-* element with what are clearly modal morphemes leads Thackston (2006a: 4) to introduce both *dɪ-* and *bɪ-* as 'modal prefixes'. In short, the general form of the analysis that we are proposing predicts that the *dɪ-* (*də-*) morphology is introduced when the basic shape of the predicate, either VP or AspP, is already defined. The interaction with negation and subjunctive morphology which clearly is external to the predicate supports this conclusion – which we schematically represent in (66) (cf. also the discussion of the placement of Sorani clitics in the next section).

(66) a. [[[$_{VP}$ mɪ dɪ-kɪr] *dɪ-*] T] cf. (61)

b. [[[$_{AspP}$ ɛz [$_{VP}$ ketʃke də-bin-ɪm] Asp] *dɪ-*] T] cf. (64)

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[17] Dorleijn (1996) discusses a certain number of varieties of Kurmanji where the oblique is not in complementary distribution with the nominative, but rather characterizes all internal arguments of transitives, in perfects as well. This yields a double oblique pattern with the verb in the invariable 3rd person singular. This is illustrated in (i) for the variety of Dyarbarkir. In present terms this is a language that appears to treat all internal arguments as 'possessors'. In fact, nothing in what we have said so far blocks this possibility.

(i) We min dit
2pl.Obl I.Obl see.Perf
'you saw me'

Another property of Dyarbarkir Kurmanji worth remarking upon is that in double oblique contexts, agreement with the oblique external argument becomes possible, as in (ii). Baker and Atlamaz (2013) report a more restricted phenomenon with nominative alignment of the object, whereby a 3rd plural ergative can trigger 3rd plural agreement on the verb, if the object is 3rd person.

(ii) We min ditin
2pl.obl I.Obl see.Perf.2pl
'you saw me'

There is crosslinguistic evidence that (ii) and the like reflect an independent parameter. Agreement with the ergative external argument is attested in Indo-Aryan languages, for instance in Nepali (Schikowski 2013, cf. Deo and Sharma 2006) – with double obliques (i.e. DOM internal arguments) or without (i.e. internal arguments in the absolute form). Another independent parameter involves the possibility of agreement with oblique objects; this is attested in Indo-Aryan languages with DOM internal arguments, for instance in Marwari where the perfect "always agrees with O whether it is marked [DOM] or not" (Verbeke 2013:234). These parameters are outside the scope of the present work. Similarly, Sigurdhsson (2004) argues that oblique ('quirky') subjects allow for partial agreement in Icelandic.

In short, Kurmanji and Punjabi differ in essentially two respects. One is that Punjabi has a so-called active alignment in the perfect opposing internal to external ones – while Kurmaji has an ergative alignment proper – opposing objects of transitives to other arguments. We account for this in terms of V agreement (picking up internal arguments in Punjabi or first merged arguments in Kurmanji). The second difference is that in Kurmanji internal arguments of transitives, which are not licenced by agreement, are forced to be licenced by (oblique) case, very much like the external arguments of perfects. For all of this, Kurmanji is like Punjabi with respect to the asymmetric structuring (VP vs. AspP) of perfect and non-perfect predicates, leading to the ergative alignment of the former – which in present terms depends on the 'possessor' treatment of external arguments (of transitives).

5.2 Sorani Kurdish

In Sorani Kurdish (Thackston 2006b) both lexical DPs and full pronouns lack any case inflection; yet an ergativity split is still visible in this language, in the agreement inflections associated with the verb – and in the clitic system. As noted by Thackston, the latter has a distinctive morphological shape (*-m/-t/-i/-man/-yan/-tan*) coinciding with that of possessive clitics in DPs, as in (67). [18]

(67) ktjeb-akæ-i/-m/-n (M)
book-Def-3sg/-1sg/-3pl
'his/her/ my/ their-book'

In the nominative alignment, the verb inflection agrees with the external argument of transitives, as in (68a-c) and with the sole argument of intransitives, as in (68d). The clitic in (68a-c) picks up the internal argument of transitives. The latter would be in the oblique case in Kurmanji; the oblique status of the clitic is also what its possessive (i.e. 'genitive') use in (67) suggests. Distributionally, clitics seem to be placed immediately to the left of the verb, where they are preceded by the *a-/e-* morphology (comparable to the *də-* morphology of Kurmanji in both meaning and distribution, cf. (66)). Interestingly, the same clitics can provide a lexicalization for the object of prepositions, like *–t* in (68c) – which is of course compatible with their oblique status.

[18] The labels (M) and (S) specify the data from our Mariwan informant and those from our Sanandaj informant respectively.

(68) a. kor-ak-æ a-i/-m/-t bin-et (M)
boy-def-Lkr Progr-3sg/-1sg/-2sg see-3sg
'The boy sees him/me/you'

b. ema e-i/ a-t ʃor-in (S)
we Progr-3sg/Progr-2sg wash-1pl
'We are washing it/you'

c. mən e-i a-m pe:-t (ɔu krasa) (S)
I Progr-3sg give-1sg to-2sg the shirt
'I am giving it to you (the shirt)'

d. korakɛ a-χɛw-et (M)
the boy Progr-sleep-3sg
'the boy is sleeping'

In the perfect, the same series of clitics that lexicalizes the internal argument of transitives in (68), lexicalizes the external argument of transitives, as in (69a-c). If clitics are oblique, then the fact that they pick the external argument in perfects reveals the existence in Sorani of a case perfectivity split parallel to that of Kurmanji, even in the absence of case inflections on nouns. [19] As expected, the verb inflection agrees with the internal argument of transitives, as for instance in (69c), or with the sole argument of intransitives, as in (69e). Distributionally, the clitic appears before the verb; since there is no Progr head in our examples, it encliticizes on the closest argument, in (69a-b) (cf. also Dabir-Moghaddam 2012). There also appears to be a descriptive constraint against sentence-initial clitics or clitics attaching to the subject, forcing the clitic to follow the verb in, say, (69c).

(69) a. du ʒən-əm bini (M)
two woman-1sg see.Perf
'I saw two women'

b. to qalam-aka-t grt(-ue) (M)
you pen-Def-2sg take.Perf-3sg
'You took the pen'

c. mən da-m pe:-t a'ma (S)

[19] Karimi (2013), working within an Appl framework, argues that the oblique clitic of the perfect corresponds to a high Appl head.

I give.Perf-1sg to-2sg this

'I gave you this'

d. hat-i (M)

come.perf-2sg

'You came'

e. korakɛ χaut (M)

boy sleep.Perf

'The boy slept'

A further pattern emerges in transitives, for our Sanandaj speaker, namely transitive perfects associated with two clitics, as in (70), one picking up the internal argument and the other the external argument. The realization of two clitics, hence two obliques, one for the internal argument and one for the external one, creates a double oblique structure, independently attested in Iranian varieties (cf. fn. 17). In clusters of two object clitics, the internal argument clitic always precedes the external argument clitics (i.e. it is lower than it). Note also the position of the clitics between the negation and the verb in (70b).

(70) a. ema di- t- man (S)

we see.Perf 2sg 1pl

'We saw you'

b. ema na- t- man- di (S)

we NEG 2sg 1pl see.Perf

'We did not see you'

Though in Sorani the perfect vs. non-perfect contrasts are restricted to clitics, [20] they are the same as in Kurmanji and they admit of the same general explanation. Non-perfect sentences have an Asp layer of structure triggering the distribution of case (here only on clitics) and of agreement analyzed for Kurmanji in (64). On the other hand the simple structure of the predicate VP in the perfect triggers patterns of agreement and case (here only on clitics) seen in Kurmanji (63).

[20] The distribution of Sorani clitics seem comparable in complexity and overall shape with that of (many) Romance varieties. In particular, there are close correlates from Medieval Romance for the alternations between the preverbal positioning of the clitic in (69a-b) and its postverbal positioning (69c) – or the similar alternation in (70b) vs. (70a). Benincà (2006) discussing the descriptive Tobler-Mussafia Law (banning first position clitics) suggests that "we have enclisis [i.e. postverbal position] when the Verb has moved to C and the preceding material is in …Topic", a description which suits our examples (69c) or (70a) if the subject is a Topic. The preverbal positioning is also consistent with that known from Romance languages since pronominal clitics are typically sequenced after negation clitics. The fact that they follow the *a-/e-* element in (68a-c) suggests that the latter is to be understood as part of the clitic string in turn (in other words an aspectual particle of the clitic field). We leave this for future work.

6. Conclusions

The so-called ergativity split between perfect and non-perfect (imperfective) sentences is observed both in languages with a specialized ergative case (e.g. Punjabi) and in languages with a more elementary case system (Kurdish). In present terms the ergativity split is due to the fact that perfects project an elementary VP predicate – which makes them more like APs or NPs; as a consequence, external arguments are not introduced directly on the predicative spine, but by means of an oblique case, i.e. an elementary predicate Q(⊆) saying that the event is 'included by', 'located at' the argument (restricted to transitives in Kurdish). In a VP predicate furthermore the inflection picks up the internal argument (the closest merged argument in Kurdish), determining phi-feature identity with DP lexicalizations of the same argument ('agreement'). By contrast imperfectives have a complex organization (Asp-V) of the predicate/event, where the Asp head can introduce an argument (the external argument). The verb inflection, picks up the external argument or the sole argument of intransitives, which appear in the direct case. It is eventually the internal argument that is introduced by an oblique elementary predicate/case (in Kurdish, or subject to DOM in Punjabi).

The idea that ergative alignment corresponds to a lesser degree of internal complexity of the sentence with respect to nominative alignment appears to be shared by much current formal literature, including Baker and Atlamaz (2013) (see section 5), Coon and Preminger (2013) (see section 4) and especially Nash (2014) with which we share an Asp-based approach. Much current formal literature adheres to what we may call the 'new Chomskyan synthesis' heavily dependent on the 'syntacticization of semantics' (Cinque and Rizzi 2010) and on the Uniformity Hypothesis (Culicover and Jackendoff 2006) – in a nutshell, on the existence of a precompiled Universal Grammar where complex sets of categories and their hierarchies are fixed cross-linguistically. In the present work we adopt a much more spare view of what is precompiled; the conceptual space of UG can be cut up by different categories in different languages, projecting different syntactic structures (compatible with semantic composition, i.e. Full Interpretation). Externalization is effected by the lexicon and different lexicons define different grammars (Chomsky 1995).

Since this debate is based on a common core of assumptions as to the mental reality of grammar and the existence of language universals inscribed in our mind-brain, it is strictly empirical. In essence we believe that the poorer model we are proposing is better suited to explaining variation than the richer, stronger alternative. For instance, we have no need to invoke the passive nature of perfect participles, as Baker and Atlamaz do, getting involved in stipulations

about empty auxiliaries reinstituting the active interpretation of perfects. What we have is simply a neutral aspect, represented by a VP projection. As the result of an event it can convey past tense (perfect) or a state imputed to its internal argument (passive, cf. so-called adjectival passive) – depending in part on the further build-up of the sentence.

Our conclusions on the person split are analogous to those on the perfectivity split. Strong predictions on the distribution of person splits such as those introduced by Coon and Preminger's analysis do not seem adequate to capture fine variation, since in particular Participant vs. non Participant splits characterize both subjects and objects. In other words, the weaker theory entertained here, that makes the person split into a direct interaction between a referential primitive and syntactic structuring, may be better motivated.

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