The Debate on Ergativity in Neo-Aramaic

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North-Eastern Neo-Aramaic - NENA

Aramaic (Semitic) was widely spoken in the Middle-East for over a millenium, until about the 8th century AD, when it was largely replaced by Arabic. Yet Aramaic still survives today in some regions as a spoken language with diverse dialects. The majority of these dialects are concentrated in south-eastern Turkey, northern Iraq and western Iran. We discuss here mainly the North-Eastern Neo-Aramaic group of dialects (NENA), which contains over a hundred dialects spoken by Jewish and Christian communities originating in villages and towns East of the Tigris river (Khan 2007b).

Fig. 1. The North-Eastern Neo-Aramaic dialect area

We argue that NENA dialects are ergative. In the Semitic family ergativity is found only in Aramaic dialects. All such dialects have been in contact with Iranian languages that ergative, or at least have been ergative at some stage of their history. Ergativity in NENA has the following characteristics, which are quite common in ergative lgs:

- Ergativity in NENA is only attested in the **perfective aspect** (the imperfective aspect is nominative-accusative).
- Ergativity in NENA is marked by **verb-agreement** rather than Case.
1. NENA verbal morphology

1.1 Verbal affixes

One of the most conspicuous traits of Semitic morphology, also found in classical Aramaic, e.g. Syriac, is the contrast in the subject-agreement inflection of imperfective and perfective stems. Broadly, whereas imperfective stems are inflected for subject-agreement by prefixes, perfective stems are inflected by suffixes. In addition, there is an optional object-agreement suffix (which, in Syriac, agrees with a direct object marked by the preposition le- which syncretizes ACC/DAT Cases):

(1) **Syriac**
   a. NOM-prefix – \( V_{\text{IMPF}} \) – ACC-suffix
   b. \( V_{\text{PERF}} \) – NOM-suffix – ACC-suffix

In the following examples, the subject second person agreement is the prefix \( te- \) in the imperfective (a), but the suffix –\( t \) in the perfective (b):

(2) **Syriac** (Nöldeke 1889)
   a. Imperfective
      \( \text{te-}q\text{el-eh} \) le-no\( \text{s} \)o
      NOM.2MS-kill\( \text{IMPF} \)–ACC.3MS \( P_{\text{ACC-man}} \)
      'You kill the man.'
   b. Perfective
      \( \text{q}\text{tal-}t\text{-oy} \) le-no\( \text{s} \)o
      kill\( \text{PERF} \)–NOM.2MS–ACC.3MS \( P_{\text{ACC-man}} \)
      'You killed the man.'

This characteristic trait of Semitic morphology has disappeared in NENA. All agreement inflection has become suffixal.

In NENA, the verb stem \( V \), whether imperfective or perfective, is only inflected for agreement by suffixes. In fact, each stem can co-occur with two suffixes, in a fixed order, NOM-suffixes and DAT-suffixes:

(3) **NENA**
   a. \( V_{\text{IMPF}} \) – NOM-suffix – DAT-suffix
   b. \( V_{\text{PERF}} \) – NOM-suffix – DAT-suffix

As an example, we list the verbal suffixes of one NENA dialect:

(4) **Jewish Sanandaj** (Khan 2009)

<table>
<thead>
<tr>
<th>Subject</th>
<th>NOM-suffix</th>
<th>DAT-suffix</th>
</tr>
</thead>
<tbody>
<tr>
<td>3MS</td>
<td>-( \emptyset )</td>
<td>-( le )</td>
</tr>
<tr>
<td>3FS</td>
<td>-( a )</td>
<td>-( la )</td>
</tr>
<tr>
<td>3PL</td>
<td>-( i )</td>
<td>-( lu )</td>
</tr>
<tr>
<td>2MS</td>
<td>-( et )</td>
<td>-( lox )</td>
</tr>
<tr>
<td>2FS</td>
<td>-( at )</td>
<td>-( lax )</td>
</tr>
<tr>
<td>2PL</td>
<td>-( etun )</td>
<td>-( làxun )</td>
</tr>
<tr>
<td>1MS</td>
<td>-( na )</td>
<td>-( li )</td>
</tr>
<tr>
<td>1FS</td>
<td>-( an )</td>
<td>-( li )</td>
</tr>
<tr>
<td>1PL</td>
<td>-( ex )</td>
<td>-( lan )</td>
</tr>
</tbody>
</table>
1.2. Agreement inversion

The NENA agreement affixes (and this is also found in the Šuroyo dialect of neo-Aramaic spoken west of the Tigris) are surprising, in view of normal Semitic morphology, not only in that they are all suffixes, with no prefixes, but also due to what we will call agreement inversion. Agreement inversion is inversion of the cross-referencing of subject and object in the imperfective vs perfective forms of the verb. Whereas for imperfective verbs, the NOM-suffix cross-references the subject and the DAT-suffix cross-references the object, for perfective verbs this is reversed in that the NOM-suffix cross-references the object, and the DAT-suffix cross-references the subject.

In (5) and (6), in the imperfective (a) examples, the NOM-suffix (-a and -i respectively) cross-references the subject and the DAT-suffix (-lu and -la respectively) cross-reference the object. This is reversed in the perfective (b) examples, where the NOM-suffix cross-references the object, and the DAT-suffix cross-references the subject.

(5) Jewish Sanandaj (Khan 2009)

a. Imperfective
   baxт-āke barux-āwal-ī garš-ā-lu
   woman-DEF friend-PL-my pull_{IMPF}-NOM.3FS-DAT.3PL
   'The woman pulls my friends.'

b. Perfective
   barux-āwal-ī baxт-āke garš-ā-lu
   friend-PL-my woman-DEF pull_{PERF}-NOM.3FS-DAT.3PL
   'My friends pulled the woman.'

(6) a. Imperfective
   barux-āwal-ī baxт-āke garš-ī-la
   friend-PL-my woman-DEF pull_{IMPF}-NOM.3PL-DAT.3FS
   'My friends pull the woman.'

b. Perfective
   baxт-āke barux-āwal-ī garš-ī-la
   woman-DEF friend-PL-my pull_{PERF}-NOM.3PL-DAT.3FS
   'The woman pulled my friends.'

1.3. Diachronic excursus

Before turning to the synchronic analysis of this system, a few words about how all this occurred. Clearly, it is not the case that the Classical Aramaic imperfective prefix hopped over the stem to turn into a suffix, nor is it the case that the Classical Aramaic perfective subject-agreement affix turned into object-agreement. Rather, the NENA inflected forms are not direct descendents of the older Aramaic inflected forms. Classical Aramaic has undergone a well-documented historical process which consisted of the disappearance of the original finite verbal forms, and the formation of new finite forms on the basis of the original participles. The active participle became the stem of the NENA imperfective, while the passive participle evolved into the NENA perfective. The subject of the perfective, the original agent phrase of the passive participle, was expressed as an oblique with dative Case. As in many other languages (also in English), in the earlier form of Aramaic from which the modern NENA dialects developed, there was an overlap in the morphological marking of dative and accusative case. When the dative agent phrase was reanalyzed as the subject of the NENA perfective, it had exactly the same form as the accusative/dative-marked direct object of the imperfective. Eventually, this identity in Case turned into identity in agreement, through the cliticization of both subject and
object pronouns to each of the perfective and imperfective stems (Kutscher 1969, Jastrow 1985, Hopkins 1989, Goldenberg 1992, Polotsky 1996, Kapeliuk 1996, Khan 1999). This inversion has also been documented in Iranian languages, in particular Kurdish (Haig 2004) with which the speakers of Aramaic were in contact.

1.4. Existing synchronic accounts for NENA agreement inversion

Synchronically, agreement inversion is a well-known characteristic of ergative languages, but there has so far been no scholarly consensus that the perfective inverted system of Neo-Aramaic should be analyzed as ergative.

The ergativity analysis has been proposed in the past (Jastrow 1985, Khan 2007) for a subset of NENA dialects, which also exhibit what is the most famous characteristic of ergative languages, i.e. the difference in marking between transitive and intransitive subjects. In ergative languages, intransitive subjects, in particular unaccusative subjects, are not marked like transitive subjects, but like transitive objects. This is shown for the Jewish dialect of Sulemaniyya in (7a). In (7a) the unaccusative perfective subject is indeed coded like a transitive object, i.e. with NOM agreement marking. What is new in our own approach is our claim that the ergativity analysis should be extended to NENA in general, including those dialects where unaccusative perfective subjects are marked like transitive subjects, as shown for the Christian dialect of Barwar in (7b). In (7b), the unaccusative subject is coded like a transitive subject, i.e. as DAT:

(7) a. **Jewish Sulemaniyya** (Khan 2004)
   brat-i qim-a
   daughter-my rise\_PERF\_NOM.3FS
   ‘My daughter rose.’

   b. **Christian Barwar** (Khan 2008)
   brat-i qim-la
   daughter-my rise\_PERF\_DAT.3FS
   ‘My daughter rose.’

The existence of dialects such as Christian Barwar, where the intransitive subject is marked just like the transitive subject (as shown in (7b), has caused leading scholars of Aramaic to reject the ergativity analysis (Goldenberg 1992, 1998, Polotsky 1996).

Yet we argue that the marking of the intransitive subject as object is but one characteristic of ergativity, albeit the best known one. Ergativity should be judged by the totality of the ergativity syndrome, i.e. by the special status of the transitive subject (which we further discuss below). The morphology of the Case/agreement marker of the intransitive subject may be due to interaction with independent factors. Indeed, even Dixon in his original article (Dixon 1979), recognized the existence of ergative languages, where intransitive subjects are coded like transitive subjects, and he called them extended-Ergative. In Dixon 1994 he coined the term **Split-S languages** (Dixon 1994), for languages where intransitive subjects are split between unaccusative subjects, which are marked like objects, and unergative subjects, which are marked like transitive subjects.

(8) a. **Jewish Sulemaniyya** **Split-S**
   brat-i qim-a
   daughter-my rise\_PERF\_NOM.3FS
   kalba n wax-le
   dog bark\_PERF\_DAT.3MS
   ‘My daughter rose.’ (unaccusative) ‘The dog barked.’ (unergative)
b. Christian Barwar  Extended-Erg
   brat-i  qim-la  kalba  nwix-le
   daughter-my  rise_{PERF}-DAT.3FS  dog  bark_{PERF}-DAT.3MS
   'My daughter rose.'  (unaccusative)  'The dog barked.'  (unergative)

As Goldenberg 1992 and Polotsky 1996 do not consider NENA ergative, how do they explain agreement inversion? Goldenberg interprets the NENA perfective as a possessive construction. This is made possible by the fact that DAT is also a marker of genitive Case (GEN). Goldenberg recognizes the inversion, and assumes that the argument cross referenced by DAT is the subject of the perfective (e.g. (5b) and (6b)), yet it is not the subject of the verb, but of a possessive auxiliary "have" expressed by the DAT/GEN agreement marking. The argument cross-referenced by NOM is the subject of the participial complement of the auxiliary. Polotsky, on the other hand, does not believe that there is any inversion and assumes that the argument cross referenced by NOM in the perfective (e.g. (5b) and (6b)) is the subject, i.e. these sentences are passive.

The two alternative analyses differ in their explanation of the contrast in (8), between Split-S and extended-Erg dialects. Goldenberg views it as parallel to the familiar contrast between languages which use a "be" auxiliary with unaccusative verbs, e.g. Italian, and languages which extend the use of the "have" auxiliary to unaccusatives, e.g. English. In the framework of a passive analysis, Bar-Asher 2007 suggests that DAT in (7b) historically originates from an ethical dative, unlike the passive by-phrase DAT found with transitive verbs.

In the present paper, we first note that both alternative analyses are actually compatible in principle with the ergativity analysis. The passive analysis is reducible to the so-called syntactic ergativity (Dixon 1994), whereas the "have" analysis is compatible with the so-called morphological ergativity and has actually been proposed as an account of morphological ergativity by Mahajan 1994.

Second, we show that the passive analysis is in fact not correct, i.e. in our terms, NENA is clearly not syntactically ergative. We do this by showing that the argument cross-referenced by NOM in the perfective does not have any subject properties, but it is rather the argument cross-referenced by DAT which has all the subject properties.

2. Refuting the Passive Analysis
2.1. Insensitivity to definiteness
Subject agreement in the imperfective is found in the verb irrespective of definiteness/referentiality, whereas object agreement is only present if the object is definite. In the perfective, we find that the argument cross-referenced by NOM-affixes must be definite, which is an indication that it is the object: In (9), the verb agrees with the definite object, but not in (10), where the object is indefinite. The argument cross-referenced by the DAT-suffixes in (9)—(10) can be indefinite and non-referential, even downward entailing in (9). This indicates that the argument cross referenced by the DAT-suffix is the subject.

(9) Jewish Sanandaj
   a. hič-kas  baxtāke  la  gərš-a-le
      NEG.person  woman-DEF  NEG  pull_{PERF}-NOM.3FS-DAT.3MS
      'Nobody pulled the woman.'
   b. bašor naše  baxtāke  gərš-a-lu
      few people  woman-DEF  pull_{PERF}-NOM.3FS-DAT.3p
      'Few people pulled the woman.'
(10) **Christian Barwar** (Khan 2008a)

xa naša qṭil-le raba kalwe
a man kill

‘A man killed many dogs.’

### 2.2. Raising

The argument cross-referenced by the DAT-suffix is the one that undergoes raising/copy-raising, indicating that it is the subject:

(11) **Christian Barwar**

a. priq-la xil-la

finish

‘She finished eating.’ (see Khan 2008a: 941)

b. la mše-la xil-la

NEG can

‘She could not eat.’ (see Khan 2008a: 940)

*priq*- 'finish' and *mše*- 'can' are indeed raising verbs rather than control verbs. In dialects such as Jewish Sulemaniyya and Jewish Urmî, where the subject of an unaccusative verb is inflected with nominative rather than dative agreement, these verbs have nominative agreement, as can be seen in (12a-b):

(12) a. **Jewish Sulemaniyya**

priq-a m-xala

finish

‘She finished eating.’ (see Khan 2004: 301)

b. **Jewish Urmî**

la mass-a axl-a

NEG can

‘She has not been able to eat.’ (see Khan 2008b: 137)

### 2.3. Clausal coordination

The DAT-argument of the first clause, rather than the NOM-arg, is the one which is treated as subject by the predicate of the second clause in a following unmarked conjoined clause (13a). When a speaker wishes to make the NOM-arg of the first clause the subject of the second clause a marked structure is used with an initial independent pronoun (13b).

(13) **Christian Barwar**

a. ’o-yala xpiq-ò-le ’u tiw-le

the-boy hug and sit

‘He hugged the boy and sat down’

b. ’o-yala xpiq-ò-le ’u ’aw tiw-le

the-boy hug and he (the boy) sat down

In syntactically ergative languages, on the other hand, the NOM-arg is interpreted as the subject of an unmarked conjoined clause.
2.4. NOM-argument is not subject
The argument cross-referenced by the NOM-suffix may in some dialects (Jewish and Christian Urmī, Christian Arbel) be marked by an accusative preposition, demonstrating it is object rather than subject:

(14) Christian Arbel
    kabra li-’anne be’e zibn-i-le
    man P_{ACC}-those eggs sell_{PERF}=NOM.3P-DAT.3MS
    ‘The man sold those eggs.’ (Khan 1999: 290 (iii)(2))

3. Morphological ergativity
We shall now show that (morphological) ergativity is indeed found in NENA, even in dialects where intransitive verbs have the same inflectional affixes as transitive verbs in the perfective (e.g. Christian Barwar, see 7b). In other words, we shall show that extended-Erg dialects are indeed ergative. Despite the fact that intransitive subjects are marked like transitive subjects in extended-Erg dialects, we argue that these dialects are ergative-absolutive, and should not be analysed as nominative-accusative.

We shall show that the DAT marked subject in NENA actually differs in its properties from those of the 'ordinary' subject in the nom-acc imperfective system: (I) the agreement morphology which cross-references it is marked relative to that cross-referencing the ordinary subject. (II) It can be 'dropped' from the sentence in a way which is impossible for an ordinary subject. (III) It counts as a PCC-intervener (Bonet 1991, Anagnostopoulou 2003, Béjar & Rezac 2009), which ordinary subjects never do, i.e. it prevents agreement between the verb and a 1st/2nd person object.

3.1. Morphological Markedness
Subject agreement in the perfective is marked and is different from subject agreement of the imperfective, which is not. Dixon 1979:77 proposes a criterion for determining whether one type of agreement is less marked than another, namely if it has more ∅ affixes (null affixes). In NENA, ∅ is only found among NOM-affixes, not DAT-affixes (cf. (4) above), which makes subject agreement in the perfective marked.

3.2. Syntactic Markedness
Subject agreement in the perfective can be dropped when the subject is not overt, whereas imperfective subject agreement can never be dropped. In the perfective examples in (16), only nominative agreement is expressed, while ergative agreement is missing. This construction should not be analysed as passive, since the verb-stem is the same as that of an active verb. Yet it lacks the DAT-suffix. We take this construction to be active, with an unspecified subject associated with the context but not fully recoverable from it, which we call 'impersonal'. For example, (15a) should literally be translated as They killed the man, with an 'impersonal' reading of they, which is phonologically null in Barwar, and is not cross-referenced by the plural dative suffix –lu. Note further that the default position for the noun is after the verb, which is the canonical positional for the object rather than the subject, since the basic word order of the dialect is SVO:

(15) Christian Barwar
    a. qṭil-∅ gawra
    kill_{PERF}=NOM.3MS man
    ‘They killed the man.’
b. q̱il-a        baxta
     killPERF-NOM.3FS woman
‘They killed the woman.’
c. q̱il-i       naše
     killPERF-NOM.3PL people
‘They killed the people.’

The basic perfective stem q̱il (missing also the NOM-suffix) can be used with indefinite 3FS or 3PL arguments, which is a property of object agreement rather than subject agreement. This further demonstrates that the clauses in (15) have an object and not a subject:

(16) Christian Barwar
     prim     šarwe
     slaughterPERF sheep.PL
‘They slaughtered sheep.’ (Khan 2008a: 750)

Null impersonal ergative subjects are also documented in other ergative languages (Comrie 1988). The drop of the agreement marking for such subjects is due to the clitic nature of the DAT-suffixes (cf. Preminger 2009).

3.3. The Person-Case Constraint (PCC)

The Person/Case Constraint (PCC) was formulated by Bonet 1991 as a universal constraint: "In a combination of a weak direct object and an indirect object [clitic, agreement marker or weak pronoun], the direct object has to be third person." (Bonet 1991: 182). The PCC was later reformulated by Anagnostopoulou 2003, 2005 and Béjar & Rezac 2003, 2009 as a consequence of relativized minimality: A Person/Case relation between a head and a dependent is barred by an intervener, and accordingly, the dependent cannot realize 1st/2nd person features, but must realize 3rd person, which is not a person feature but rather default morphology.

The PCC holds in NENA in ditranstive constructions with dative and direct object suffixes. The dative indirect object DAT blocks agreement of the direct object

(17) Christian Qaraqosh (Khan 2002)
      k-ew-i-láb-ila
      IND-giveIMPF-NOM.3PL-DAT.3MS-DIRECT.OBJECT.3MS
‘They give it to him.’

Constructions with 1st or 2nd person direct objects are not possible.

In most NENA dialects, the dative subject counts as a PCC intervener. We call these dialects PCC-abiding. (For the dialects where the subject is not a PCC intervener – PCC-obviating dialects, see Doron and Khan, in press). In the PCC-abiding dialects, NOM agreement across a dative subject is restricted to 3rd person, whether or not that subject is overt:

(18) Christian Barwar

a. transitive

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3ms.</td>
<td>griš-∅-le</td>
<td>‘He pulled him’</td>
<td></td>
</tr>
<tr>
<td>3fs.</td>
<td>griš-∅-le</td>
<td>‘He pulled her’</td>
<td></td>
</tr>
<tr>
<td>3pl.</td>
<td>griš-∅-le</td>
<td>‘He pulled them’ etc.</td>
<td></td>
</tr>
<tr>
<td>2ms.</td>
<td>* griš-at-le</td>
<td>1ms.</td>
<td>* griš-an-le</td>
</tr>
<tr>
<td>2fs.</td>
<td>* griš-at-le</td>
<td>1fs.</td>
<td>* griš-an-le</td>
</tr>
<tr>
<td>2pl.</td>
<td>* griš-itu-le</td>
<td>1pl.</td>
<td>* griš-xx-le</td>
</tr>
</tbody>
</table>
b. transitive with null impersonal subject

<table>
<thead>
<tr>
<th>Number</th>
<th>Form</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>3ms.</td>
<td>griš-∅</td>
<td>‘They pulled him’</td>
</tr>
<tr>
<td>3fs.</td>
<td>griš-a</td>
<td>‘They pulled her’</td>
</tr>
<tr>
<td>3pl.</td>
<td>griš-i</td>
<td>‘They pulled them’ etc.</td>
</tr>
<tr>
<td>2ms.</td>
<td>* griš-at</td>
<td>1ms. * griš-an</td>
</tr>
<tr>
<td>2fs.</td>
<td>* griš-at</td>
<td>1fs. * griš-an</td>
</tr>
<tr>
<td>2pl.</td>
<td>* griš-itu</td>
<td>1pl. * griš-an</td>
</tr>
</tbody>
</table>

Under no accepted theory of Case could the intervening element possibly be a nominative subject, a dependent of the T node, the highest position in the clause, since it must intervene between the object and the head that the object depends on, i.e. its position must be structurally lower than that head. This argues strongly for the non-nominative nature of the subject, even in Extended-Erg dialects.

4. The analysis of ergativity

We have divided NENA dialects into two groups. In the Split-S dialect, the dative marker is restricted to transitive (and unergative) verbs (5-6b), and is not found with unaccusative verbs (7a). The Extended-Erg dialects, on the other hand, also mark all unaccusative subjects as dative (7b). This is surprising from the perspective of theories of ergativity, since they contradict Marantz's generalization (Marantz 1991) from which it follows that unaccusative subjects cannot be ergative. The existence of Extended-Erg dialects also suggest that ergative Case is not necessarily inherent (contra Mahajan 1989, 1994, Nash 1996, Woolford 1997, Legate 2002, 2008, Aldridge 2004, 2008a, 2008b, Laka 2006, Ura 2006, and others) but can also be assigned structurally (Bittner 1994, Bittner and Hale 1996 ao), and specifically that it is assigned by v (and not by T, as suggested by Bobaljik 1993, Laka 1993, 2000, Rezac 2008, and others). Not all internal arguments are assigned nominative Case in NENA, the argument of unaccusative verbs is marked dative in Extended-Erg dialects, as in (7b) above. We reduce the parametric variation between the different dialects to the distribution of v in perfective derivations. v is obligatory in Extended-Erg dialects, and assigns dative Case to the external argument, if there is one, or to the internal argument otherwise. In Split-S dialects, v is obligatorily missing:

(19) The v-Parameter

| Extended-Erg | v |
| Split-S     | *v |

The obligatoriness of v in the Extended-Erg dialects, even for unaccusative verbs, depends on severing the connection between the presence of v and the verb's requirement for an external argument (Doron 2003, 2008, Alexiadou et al. 2006). v may be merged in a derivation without introducing an external argument. Rather the presence of the external argument depends on the requirements of the root and on voice. Conversely, the obligatory lack of v in Split-S dialects is compatible with verbs having an external argument. This is due to a second parameter, one which distinguishes ergative from nominative-accusative languages: In ergative languages, but not in nominative-accusative languages, the external argument may be merged VP-internally, similarly to a possessive adjunct of nominalization (Bok-Bennema 1991, Johns 1992, Nash 1996, Alexiadou 2001, McGinnis 2008).

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1 There is a third group of dialects, which we will not discuss here, which has intermediate characteristics. We call this group 'Dynamic-Statitive' (Doron and Khan, in press).
Before providing structures demonstrating the position of \( v \) in the different derivations, we give an example which illustrates the position of the past tense suffix \(-wa\):

(20) \textbf{Jewish Sanandaj}

\begin{align*}
\text{baxt-\textsuperscript{\text{āk}}} & \text{ barux-\textsuperscript{\text{āw}}} & \text{ gərš-\textsuperscript{\text{-wa}}} & \text{la} \\
\text{woman-DEF} & \text{ friend-PL-my} & \text{ pull\textsuperscript{PERF}-NOM.3PL-PAST-DAT.3FS} \\
\end{align*}

'The woman had pulled my friends.'

Imperfective and perfective structures are shown in (21).

(21) a. \textbf{Imperfective derivation}  

\begin{itemize}
  \item \textbf{TP} \hspace{2cm} \textbf{TP}
  \item \textbf{AspP} \hspace{2cm} \textbf{T}
  \item \textbf{vP} \hspace{2cm} \textbf{vP}
  \item \textbf{Subj\textsuperscript{NOM}} \hspace{2cm} \textbf{Subj\textsuperscript{DAT}}
  \item \textbf{Obj\textsuperscript{DAT}} \hspace{2cm} \textbf{Obj\textsuperscript{NOM}}
  \item \textbf{V} \hspace{2cm} \textbf{V}
\end{itemize}

b. \textbf{Perfective derivation}

\begin{itemize}
  \item \textbf{TP} \hspace{2cm} \textbf{TP}
  \item \textbf{AspP} \hspace{2cm} \textbf{T}
  \item \textbf{vP} \hspace{2cm} \textbf{vP}
  \item \textbf{Subj\textsuperscript{DAT}} \hspace{2cm} \textbf{Subj\textsuperscript{DAT}}
  \item \textbf{Obj\textsuperscript{DAT}} \hspace{2cm} \textbf{Obj\textsuperscript{NOM}}
  \item \textbf{V} \hspace{2cm} \textbf{V}
\end{itemize}

Unlike in the imperfective derivation, which is a familiar derivation, the Subject in the perfective derivation is merged as an adjunct to VP, and is marked as \textbf{DAT}, either by \( v \), if there is one in the derivation, or otherwise inherently. The object is assigned nominative Case by T. Accordingly, perfective derivations (21b) have adjunct subjects. It follows that Subj and Obj are in the same domain, and therefore Subj is a PCC intervener. We thus derive the fact that NENA dialects are PCC-abiding.\(^2\)

Below is an illustration of derivation (21b) in a Split-S dialect.

(22) \textbf{Perfective derivation in Split-S dialects (Jewish Sanandaj)}

\begin{align*}
\text{'ana} & \text{ brat-\textsuperscript{i}} & \text{ gərš-a-\text{li}} \\
\text{I} & \text{ daughter-my pull\textsuperscript{PERF}-NOM.3FS-DAT.1S} \\
\text{'I pulled my daughter.'} & \text{TP} \\
\item \textbf{AspP} \hspace{2cm} \textbf{T}
  \item \textbf{vP} \hspace{2cm} \textbf{vP}
  \item \textbf{Subj\textsuperscript{DAT}} \hspace{2cm} \textbf{Subj\textsuperscript{DAT}}
  \item \textbf{Obj\textsuperscript{NOM}} \hspace{2cm} \textbf{Obj\textsuperscript{NOM}}
  \item \textbf{V} \hspace{2cm} \textbf{V}
\end{itemize}

\( ^2 \) Some Extended-Erg dialects have subjects which are arguments of \( v \), and hence are PCC-obviating.
Since the subject is an adjunct in (22), and not required by a v, it is not obligatory, and may be omitted, which productively generates anticausative examples. The derived subject is not restricted to 3rd person, unlike in (18b), as there is no intervening external argument; for example, in (23) below the derived subject is 1st person. Moreover, since v is not merged in the perfective, subjects of anticausative verbs are not marked as dative, and hence are marked as nominative by T.

(23) **Anticausative derivation** (Jewish Sanandaj)

\[
\begin{array}{c}
\text{'ana} & \text{griš-na} \\
I & \text{pull}_{\text{PERF} \text{-NOM}.1\text{MS}} \\
\text{‘I got pulled.'} \\
\end{array}
\]

We now illustrate derivation (21b) in an Extended-Erg dialect. In Extended-Erg dialects, v is obligatory in all perfective derivations:

(24) **Perfective derivation in Extended-Erg dialects** (Christian Barwar)

\[
\begin{array}{c}
\text{'ana} & \text{brat-i} & \text{griš-a-li} \\
I & \text{daughter-my} & \text{pull}_{\text{PERF} \text{-NOM}.3\text{FS} \text{-DAT}.1\text{S}} \\
\text{‘I pulled my daughter.'} \\
\end{array}
\]

There are no anticausative derivations in extended-Erg dialects (other than for a lexically determined class of verbs which can be unaccusative even in the imperfective) since v is required in the derivation, and in turn requires an external arg if there is one:

(25) * **Anticausative derivation** (Christian Barwar)

\[
\begin{array}{c}
\text{* brat-i} & \text{griš-la} \\
\text{daughter-my} & \text{pull}_{\text{PERF} \text{-DAT}.3\text{FS}} \\
\text{‘My daughter got pulled.’} \\
\end{array}
\]

\[\text{3 Other than for verbs where both arguments of the verb are internal, such as subject-experiencer verbs.}\]
If v itself is interpreted as an impersonal argument, we derive examples of null impersonal subject where the ergative agreement clitic is dropped, but crucially the impersonal v subject competes with the object for person agreement. Accordingly the PCC cannot be obviated, and we only find null impersonal subjects with 3rd person agreement:

(26) 'Null impersonal subject' derivation (Christian Barwar)

a  brat-i griš-a
daughter-my pull_{PERF-NOM.3FS}
‘My daughter was pulled.’

b  * 'ana griš-ān
I pull_{PERF-NOM.1MS}
‘I was pulled.’

We now turn to unaccusative derivations. Since in Split-S dialects v is not merged in the perfective, the subjects of unaccusative verbs are not marked as dative, and hence are marked as nominative by T.

(27) Unaccusative derivation (Jewish Sanandaj)

brat-i qim-a
daughter-my raise_{PERF-NOM.3FS}
‘My daughter rose.’

TP

AspP  T

| VP  Asp -a

| Obj_{NOM} V Perf

| | | | |

brati qim-

In all extended-Erg dialects, there is no derivation without v, therefore unaccusative subjects are marked as dative:

(28) Unaccusative derivation (Christian Barwar)

brat-i qim-la
daughter-my rise_{PERF-DAT.3FS}
‘My daughter rose.’

TP

AspP  T

| VP  Asp -la

| Obj_{DAT} V

| | | | |

brati qim-
5. Additional support for the ergative analysis: the perfect construction

We now present evidence from the NENA perfect construction which supports our analysis of ergativity as v-dependent. The evidence comes from the variation in the properties of the perfect construction between Split-S and Extended-Erg dialects.

5.1 The formation of the perfect in NENA

In most NENA dialect the perfect is expressed by combining a resultative participle with a copula. The copula is pronominal in origin, consisting of a /i/ or /y/ base, which has developed diachronically from the 3ms pronoun hu by a process of delabialization. This copula, or PRON as we call it, is inflected for number, gender and person with verbal NOM-suffixes. These verbal NOM-suffixes occur throughout the paradigm in Jewish Sulemaniyya (29):

(29) Jewish Sulemaniyya (Khan 2004)

<table>
<thead>
<tr>
<th></th>
<th>3ms</th>
<th>3fs</th>
<th>3pl</th>
<th>2ms</th>
<th>2fs</th>
<th>2pl</th>
<th>1ms</th>
<th>1fs</th>
<th>1pl</th>
</tr>
</thead>
</table>

5.2. Agreement of the participle in Split-S vs. Extended-Erg dialects

We now turn to a contrast within the perfect of transitive verbs between Split-S and Extended-Erg dialects. There is a contrast in the agreement of the participle: in Split-S dialects, the participle agrees with the object (30), whereas in Extended-Erg dialects, the participle agrees with the subject (31). Both examples also involve genitive clitics doubling the object:

(30) Jewish Sulemaniyya (Khan 2004) Split-S: Participle agrees with Obj

'o bāruxt-i  
he friend.FS-my pullPART.FS-GEN.3FS-PRON.NOM.3MS

'He has pulled my girl-friend.'

(31) Christian Urmi (Khan in prep) Extended-Erg: Participle agrees with Subj

'awun jriš-o-(y)lə  
he pullPART-MS-GEN.3FS-PRON.NOM.3MS friend.FS-my

'He has pulled my girl-friend.'

The variation in agreement of the participle in the two types of dialect follows from the variation in the presence of v between the dialects, together with the assumption that the participle-phrase has ergative structure:

---

4 The PRON suffix -ls in jrišo is not a DAT suffix; 1st and 2nd suffixes in the same paradigm are clearly morphologically NOM.
(32)  Extended-Erg  Split-S
    v  *v
Participle agrees with  subject  object

In Extended-Erg dialects, v is present in (33) and thus the external argument agrees with it and eventually with Agr\textsubscript{PART}, since the verb raises through both of these nodes. In Split-S dialects, v is missing, therefore Subj is an adjunct with inherent Case, and Agr\textsubscript{PART} does not enter into an agreement relation with it, but with Obj.

Evidence for the presence of Subj as an adjunct to VP even in Split-S dialects is that it functions as a PCC intervener and prevents 1\textsuperscript{st} and 2\textsuperscript{nd} person agreement between Agr\textsubscript{PART} and Obj.

(33)  \textbf{Present Perfect derivation}

\begin{equation}
\begin{array}{c}
\text{TP} \\
\text{AgrP} \\
\text{vP} \\
\text{vPART-Cl\textsubscript{GEN}} \\
\text{PRON-Agr\textsubscript{NOM}} \\
\text{T} \\
\text{VP} \\
\text{Subj} \\
\text{Obj\textsubscript{GEN}} \\
\text{V\textsubscript{PART}} \\
\end{array}
\end{equation}

6.  **Conclusion**

Determining that a particular language is ergative cannot be based automatically on the marking of the intransitive subject as different from the transitive subject. Some ergative languages are Extended-Erg, i.e. mark the intransitive and transitive subject alike, though these subjects have other characteristics that distinguish them, and so Extended-Erg languages are ergative, not nominative-accusative. The marking of the intransitive subject as object is but one characteristic of ergativity, albeit the best know one. Ergativity should be judged by the totality of the ergativity syndrome, of which agreement reversal and participle agreement are important symptoms. According to our findings, ergativity is a wider phenomenon than has generally been recognized. We have provided evidence that the boundaries of ergativity should be pushed back to include a wider range of alignments.

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