The typology of morphological ergativity in Neo-Aramaic

Edit Doron [a,*], Geoffrey Khan [b]

[a] Department of Linguistics, The Hebrew University of Jerusalem, 91905 Jerusalem, Israel
[b] Faculty of Asian and Middle Eastern Studies, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DA, UK

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ABSTRACT

Morphological ergativity is attested in all Neo-Aramaic dialects of the North-Eastern Neo-Aramaic (NENA) group, which comprises over a hundred different dialects spoken by Jewish and Christian communities originating in the border areas of Turkey/Iraq/Iran. Historically, Aramaic (Semitic) is nominative-accusative, and ergativity developed through contact with ergative Iranian languages, especially Kurdish, which is spoken by the Muslim population of the region. Ergativity developed in the perfective aspect only, and is marked by verb-agreement rather than Case. We divide NENA dialects into three types according to their degree of ergativity, reflected by differences in the distribution of the ergative marking of intransitive verbs. In dialects exhibiting the highest degree of ergativity, which we call *Split-S*, the ergative marker is restricted to transitive and unergative verbs, and is not found with unaccusative verbs. In a second type of dialect, which we call *Dynamic-Stative*, the ergative marker is also optionally found with unaccusative verbs. Dialects exhibiting the lowest degree of ergativity, *Extended-Ergative*, mark all intransitive subjects as ergative. This is surprising from the perspective of theories of ergativity, since it contradicts Marantz's Generalization, and suggests that ergative Case is not inherent but structural, and, specifically, that it is assigned by v and not by T. We show that the parametric variation between the different dialects reduces to the distribution of v. v is obligatory in Extended-Erg dialects, and assigns ergative Case to its argument if it has one, or to the internal argument otherwise. In Dynamic-Stative dialects, the presence of v is optional. In Split-S dialects – v is obligatorily missing; this is nevertheless compatible with verbs having an external argument, since ergative languages allow the merge of the external argument as an adjunct.

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1. Neo-Aramaic

Neo-Aramaic is unique among the Semitic languages in that many of its dialects have ergative-absolutive morphology (Khan, 2007a). What makes it particularly interesting is that these dialects developed historically from documented forms of earlier Aramaic, which are nominative-accusative.

Neo-Aramaic is divided into four different groups of dialects:

(i) Western group spoken in Maʕlula and various other villages in the region of Damascus
(ii) Ṭuroyo group, spoken in Ṭur ʕAbdin and in the village of Mlaḥso in south-eastern Turkey

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

(iii) Mandaic, spoken in the cities of Ahwaz and Khorramshahr, Iran
(iv) North-Eastern Neo-Aramaic (NENA) (Fig. 1).

The Neo-Aramaic dialects that now exhibit ergativity belong to the Ṭuroyo and North-Eastern Neo-Aramaic groups. These dialects are currently spoken, or at least have been spoken until recently, in south-eastern Turkey, northern Iraq and north-western Iran. The majority belong to North-Eastern Neo-Aramaic (NENA), the most diverse of all Neo-Aramaic dialect groups, which contains over a hundred dialects spoken by Jewish and Christian communities originating in villages and towns lying East of the Tigris river (Khan, 2007b).

The NENA dialects vary in lexicon, morphology and syntax (e.g. some dialects are predominantly SOV and others are predominantly SVO), but are all ergative. Ergativity in NENA developed historically due to contact with ergative Iranian languages, especially Kurdish, which is spoken by the Muslim population of the region (Khan, 2007c).

The historical evolution of ergativity in NENA involved the disappearance of original Aramaic tensed finite verbal forms. New tense/aspect forms developed 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. Ergativity developed only in the perfective, where the subject, 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 Neo-Aramaic perfective, it had exactly the same form as the accusative 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.

The characteristic features of NENA regarding ergativity, therefore, are that it is split-ergative (in the perfective aspect only), and that its ergativity is marked by verb-agreement rather than Case.

2. Split ergativity and agreement inversion

2.1. S-suffixes and L-suffixes

We begin with a discussion of transitive verbs, postponing intransitive verbs to section 3. Transitive verbs in NENA, whether imperfective or perfective, co-occur with two types of affixes, in a fixed order, conventionally labelled S-suffixes and L-suffixes: (S- stands for Simple, as it is the unmarked inflection, while the L-suffix is the inflected accusative/dative preposition *l-*)

(1) a. V_{IMPF} – S-suffix – L-suffix
     b. V_{PERF} – S-suffix – L-suffix

For imperfective verbs, the S-suffix cross-references the subject (we shall call it NOM), and the L-suffix cross-references the object (we call it ACC), whereas for perfective verbs, this is reversed, the S-suffix cross-references the object (we call it ABS), and the L-suffix cross-references the subject (we call it ERG):

(2) a. V_{IMPF} – NOM-suffix – ACC-suffix
     b. V_{PERF} – ABS-suffix – ERG-suffix

In other words, imperfective verbs are NOM–ACC, whereas perfective verbs are ERG–ABS. NOM and ABS suffixes have the same exponents, S-suffixes, and so do ACC and ERG suffixes – with L-suffix exponents. As an example, we list the verbal suffixes of one dialect:

(3) **Jewish Sanandaj** (Khan, 2009)

	S-suffixes	**L-suffixes**
	NOM/ABS	ACC/ERG
3MS	*-∅*	*-le*
3FS	*-a*	*-la*
3PL	*-i*	*-lu*
2MS	*-et*	*-lox*
2FS	*-at*	*-lax*
2PL	*-etun*	*-lăxun*
1MS	*-na*	*-li*
1FS	*-an*	*-li*
1PL	*-ex*	*-lan*

The inversion of the cross-referencing of subject and object between the perfective and the imperfective is illustrated below. In (4) and (5), in the imperfective (a) examples, the S-suffix (*-a* and *-i*, respectively) cross-references the subject and the L-suffix (*-lu* and *-la*, respectively) cross-reference the object. This is reversed in the perfective (b) examples, where the S-suffix cross-references the object, and the L-suffix cross-references the subject.[1]

(4) **Jewish Sanandaj**
     a. **Imperfective**
         baxt-ăke   barux-ăwal-i **garš-á-lu**
         woman-DEF   friend-PL-my   pull$_{IMPF}$-NOM.3FS-ACC.3PL
         'The woman pulls my friends.'
     b. **Perfective**
         barux-ăwal-i baxt-ăke   **gərš-á-lu**
         friend-PL-my   woman-DEF   pull$_{PERF}$-ABS.3FS-ERG.3PL
         'My friends pulled the woman.'

(5) **Jewish Sanandaj**
     a. **Imperfective**
         barux-ăwal-i baxt-ăke   **garš-í-la**
         friend-PL-my   woman-DEF   pull$_{IMPF}$-NOM.3PL-ACC.3FS
         'My friends pull the woman.'

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[1] Examples throughout the article are either from published grammatical descriptions of the various NENA dialects, or from unpublished data gathered by the authors from native speakers.

b. **Perfective**

baxt-ăke   barux-ăwal-i **gərš-í-la**

woman-DEF   friend-PL-my pull_PERF-ABS.3PL-ERG.3FS

'The woman pulled my friends.'

2.2. The nature of L- vs. S-suffixes

It should be noted that L-suffixes (and inflected prepositions) follow the anteriority auxiliary -*wa* 'PAST', whereas S-suffixes precede the auxiliary:

(6)   **Christian Urmi** (Khan, to appear 2012)

    a.   jrəš-wa-lə   qatox

          pull_PERF-PAST-ERG.3MS   P_ACC.2MS

    b.   jriš-ət-wa-lə

          pull_PERF-ABS.2MS-PAST-ERG.3MS

          both: 'He had pulled you'

This demonstrates the nature of L-suffixes as clitics, in contrast to the inflectional nature of S-suffixes, which inflect the verbal stem. The inflectional nature of the S-suffix vs. the clitic nature of the L-suffix is further demonstrated by the fact that at most a single S-suffix is found in the verb, whereas in some dialects, two L-suffixes can be combined with the stem, one of them ergative and the other accusative[2]:

(7)   **Jewish Urmi** (Khan, 2008b)

    xze-le-le

    see_PERF-ERG.3MS-ACC.3MS

    'He saw him.'

2.3. ERG-suffixes cross-reference the subject

We start by arguing that the ergativity found in NENA is not *syntactic* ergativity. In syntactically ergative languages, the absolutive argument in transitive clauses is the syntactic subject (Dixon, 1994:12). We claim that NENA is morphologically ergative, i.e. the absolutive argument in transitive clauses is the syntactic object. This is contrary to Polotsky (1996), who treats perfective sentences as passive, not ergative, and accordingly views the argument cross-referenced by the ABS-suffix as subject. This view however is actually equivalent to syntactic ergativity. Here we demonstrate that the ergativity found in NENA is *morphological*, and that it is the argument cross-referenced by the ERG-suffix which has all the subject properties (see also Goldenberg, 1992 who disagrees with Polotsky's view).

2.3.1. 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 ABS-affixes must be definite, which is an indication that it is the object. This is the case in all NENA dialects. We present examples from the Jewish Sanandaj and Christian Barwar dialects. In (8), the verb agrees with the definite object, but not in (9), where the object is indefinite. The argument cross-referenced by the ERG-suffixes in (8)–(9) can be indefinite and non-referential, even downward entailing in (8). This indicates that the argument cross referenced by the ERG-suffix is the subject.

(8)   **Jewish Sanandaj**

    a.   hič-kas   baxtăke   gərš-a-le

          NEG.person woman-DEF pull_PERF-ABS.3FS-ERG.3MS

          'Nobody pulled the woman.'

    b.   başor naše baxtăke   gərš-a-lu

          few people woman-DEF pull_PERF-ABS.3FS-ERG.3P

          'Few people pulled the woman.'

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[2] In this paper, we do not further discuss cases where ACC replaces ABS in perfective verbs.

(9)   **Christian Barwar** (Khan, 2008a)

    xa naša qṭil-le   raba kalwe

    a man kill_{PERF}–ERG.3MS many dogs

    'A man killed many dogs.'

2.3.2. Raising

    The argument cross-referenced by the ERG-suffix is the one that undergoes raising (or *copy-raising* in the sense of Potsdam and Runner, 2001), indicating that it is the subject:

(10)   **Christian Barwar**

    a.   priq-la   xil-la

          finish_{PERF}–ERG.3FS   eat_{PERF}–ERG.3FS

          'She finished eating.' (see Khan, 2008a:941)

    b.   la   mṣe-la   xil-la

          NEG can_{PERF}–ERG.3FS eat_{PERF}–ERG.3FS

          'She could not eat.' (see Khan, 2008a:940)

    priq- 'finish' and *mṣe-* 'can' are indeed raising verbs rather than control verbs. In dialects such as Jewish Sulemaniyya and Jewish Urmi, where the subject of an unaccusative verb is inflected with absolutive rather than ergative agreement, these verbs have absolutive agreement, as can be seen in (11a–b):

(11)   a.   **Jewish Sulemaniyya**

          priq-a   m-xala

          finish_{PERF}–ABS.3FS from-eat_{INF}

          'She finished eating.' (see Khan, 2004:301)

    b.   **Jewish Urmi**

          la   məss-a   axl-a

          NEG can_{PERF}–ABS.3FS eat_{IRREALIS}–NOM.3FS

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

2.3.3. Clausal coordination

    In a conjunction of two clauses where the second clause has subject agreement but no overt subject, the argument cross-referenced by the ERG-suffix of the first clause is treated as subject by the predicate of the second clause (12a). In syntactically ergative languages, on the other hand, it is the argument cross-referenced by the ABS-suffix which is treated as subject of the second clause (Dixon, 1994). In the NENA dialects, an overt pronoun must be introduced in the second clause to allow the argument cross-referenced by the ABS-suffix in the first clause to be interpreted as the subject of the second clause (12b):

(12)   **Christian Barwar**

    a.   ʔɛ-brata muxl-a-la   ʔu   zil-la

          the-girl   feed_{PERF}–ABS.3FS–ERG.3FS and leave_{PERF}–ERG.3FS

          'She fed the girl and left'

    b.   ʔɛ-brata muxl-a-la   ʔu   ʔay zil-la

          the-girl   feed_{PERF}–ABS.3FS–ERG.3FS and she leave_{PERF}–ERG.3FS

          'She fed the girl and she (the girl) left'

2.3.4. Ā-extraction

    The argument cross-referenced by an ERG-suffix can be Ā-extracted. In (13a) such an argument is questioned, and in (13b) it is relativized:

(13)   **Christian Barwar**

    a.   ʔɛni   qṭil-a-le   ʔay-baxta

          who.MS kill_{PERF}–ABS.3FS–ERG.3MS that-woman

          'Who killed that woman?'

b.   gawrə-t   qṭil-a-le   ʔay-baxta
     man-C_Rel   kill_PERF–ABS.3FS–ERG.3MS that-woman
     'the man who killed that woman'

In some syntactically ergative languages such as Dyirbal (Dixon, 1979), the ergative-marked argument cannot be Ā-extracted, whereas the absolutive-marked argument can. This indicates that the ergative-marked argument is below the absolutive-marked argument on the Keenan–Comrie noun-phrase accessibility hierarchy (Keenan and Comrie, 1977). Since the subject is the top of the hierarchy, the ergative-marked argument is not the subject in Dyrbal. The Ā-extraction of the ergative-marked argument in NENA, therefore, is consistent with our claim that this argument is the subject.

2.3.5. Anaphor binding

There is a cross-linguistic tendency for reflexive anaphors to be bound only by the subject. In NENA, the argument cross-referenced by an ERG-suffix can bind an absolutive reflexive anaphor:[3] (Notice that reflexives in NENA govern feminine agreement.)

(14) **Christian Barwar**
      qṭil-a-le   gyane
      kill_PERF–ABS.3FS–ERG.3MS himself
      'He killed himself.'

3. Variation in ergativity

The NENA dialects exhibit varying degrees of ergativity. This is reflected by differences in the distribution of the ergative marker on intransitive verbs. The dialects exhibiting a higher degree of ergativity (Split-S and Dynamic-Stative) mark some intransitive subjects as absolutive, whereas dialects exhibiting a lower degree of ergativity (Extended-Erg) mark all intransitive subjects as ergative. The variation in the marking of intransitive subject agreement is linked to variations in the extent to which the dialects exhibit other properties that are known to correlate with ergativity. Of particular significance is the extent to which the various NENA dialects are consistent with Mahajan's generalization (Trask, 1979; Mahajan, 1994, 1997) that the verb in ergative languages is clause-peripheral. Dialects that we identify as exhibiting a higher degree of ergativity are mostly SOV, while the dialects that we identify as exhibiting a lower degree of ergativity are mostly SVO. Nevertheless, we will show that all NENA dialects exhibit some degree of ergativity.

3.1. Split-S dialects

In dialects with the highest degree of ergativity, the ergative marker is found with *transitive* and *unergative* verbs (15a–b), and is not found with *unaccusative* verbs (15c). We call such dialects "split-S dialects" (following Dixon's, 1994 terminology):

(15)   **Jewish Sanandaj**
      a.   barux-āwal-i brat-i   gərš-a-lu
           friend-PL-my daughter-my   pull_PERF–ABS.3FS–ERG.3PL
           'My friends pulled my daughter.'
      b.   kalba   nwəx-le
           dog   bark_PERF–ERG.3MS
           'The dog barked.'
      c.   brat-i   qim-a
           daughter-my   rise_PERF–ABS.3FS
           'My daughter rose.'

3.2. Extended-Erg dialects

In dialects with a low degree of ergativity, the ergative suffix has been extended to unaccusative verbs as well. We call such dialects "Extended-Ergative dialects". This is the most surprising type of dialect from the perspective of theories of ergativity, since they contradict Marantz's generalization (Marantz, 1991) from which it follows that unaccusative subjects

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[3] It is true that in some syntactically ergative languages as well, it is the ergative element which binds anaphors, cf. Falk (2006), Aldridge, 2008. We mention anaphor binding for the sake of completeness.

are never ergative. In Extended-Erg dialects, ergative agreement marking cross-references the subject of transitive verbs (16a), the subject of unergative verbs (16b), and also the subject of unaccusative verbs (16c):

(16) **Christian Barwar**

    a.   xawr-ăwaθ-i brat-i   griš-a-la
        friend-PL-my daughter-my pull$_{PERF}$-ABS.3FS-ERG.3PL
        'My friends pulled my daughter.'

    b.   kalba   nwix-le
        dog   bark$_{PERF}$- ERG.3MS
        'The dog barked.'

    c.   brat-i   qim-la
        daughter-my rise$_{PERF}$-ERG.3FS
        'My daughter rose.'

Despite the fact that intransitive subjects are marked like transitive subjects, we argue that these dialects are ergative-absolutive, and should not be analyzed as nominative-accusative, for the following reasons.

3.2.1. Morphological markedness

Subject agreement in the perfective is marked and is different from subject agreement of the imperfective, which is not. The term "Extended-Ergative" for such languages is due to Dixon (1979:77). Dixon proposes a criterion for determining whether one type of agreement is less marked than another, namely if it has more ∅ affixes (null affixes). As was shown in the list of S- and L-affixes in (3), ∅ is only found in NENA among S-affixes, not L-affixes, which makes subject agreement in the perfective marked.

3.2.2. 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 (17), only absolutive agreement is expressed, while ergative agreement is missing. This construction should not be analyzed as passive, despite the English translation, since the verb-stem is the same as that of an active verb. Yet it lacks the L-suffix. We take this construction to be active, with an unspecified subject which depends on context but is not fully recoverable from it, which we call 'impersonal'. For example, (17a) should literally be translated as *They killed the man*, with an 'impersonal' reading of *they*, which is phonologically null in Barwar: (for example from Jewish Zakho see Gutman, 2008)

(17) **Christian Barwar**

    a.   gawṛa   qṭil-∅
        man   kill$_{PERF}$-ABS.3MS
        'The man was killed.'

    b.   baxta   qṭil-a
        woman   kill$_{PERF}$-ABS.3FS
        'The woman was killed.'

    c.   naše   qṭil-i
        people kill$_{PERF}$-ABS.3PL
        'The people were killed.'

The basic perfective stem *qṭil* (missing also the S-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 (17) have an object and not a subject:

(18) **Christian Barwar**

    prim   ʔərwe
    slaughter$_{PERF}$ sheep.PL
    'Sheep were slaughtered.' (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 L-suffixes (cf. Preminger, 2009). Interestingly, null

impersonal subjects occur in Barwar only with 3rd person objects. The forms in (17)–(18) are only available with 3rd person objects, 1st–2nd person objects do **not** surface despite the fact that the subject is null. A contrastive pair is shown in (19). This is a significant fact related to the PCC, to which we presently turn.

(19)   **Christian Barwar**

a.   brat-i   griš-a

     daughter-my   pull$_{PERF}$-ABS.3FS

     'My daughter was pulled.'

b.   * ʔana griš-ən

     I   pull$_{PERF}$-ABS.1MS

     'I was pulled.'

3.2.3. 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 and 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.

In all SOV NENA dialects, and in most SVO dialects as well, the ergative subject counts as a PCC intervener. We call these dialects *PCC-abiding*, and the dialects where the subject is not a PCC intervener – *PCC-obviating*. In the PCC-abiding dialects, ABS agreement across an ergative subject is restricted to 3rd person, whether or not that subject is overt. (For further details, see Doron and Khan, to appear 2012.)

(20)   **Christian Barwar**

a.   transitive

3ms.   *grı́š-∅-le*   'He pulled him'

3fs.   *griš-á-le*   'He pulled her'

3pl.   *griš-í-le*   'He pulled them' etc.

2ms. * *griš-ət-le*   1ms. * *griš-ən-le*
2fs.   * *griš-at-le*   1fs.   * *griš-an-le*
2pl.   * *griš-itu-le*   1pl.   * *griš-əx-le*

b.   transitive with null impersonal subject

3ms.   *grı́š-∅*   'He was pulled'

3fs.   *grı́š-a*   'She was pulled'

3pl.   *grı́š-i*   'They were pulled' etc.

2ms. * *griš-ət*   1ms. * *griš-ən*
2fs.   * *griš-at*   1fs.   * *griš-an*
2pl.   * *griš-itu*   1pl.   * *griš-əx*

Under accepted theories of Case, the intervening element could not be a nominative subject, i.e. 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.

The construction with null impersonal subjects found in Extended-Erg dialects should be distinguished from the anticausative construction of Split-S dialects. The latter dialects allow anticausative verbs productively, practically with every transitive verb. Anticausative verbs enter the derivation with no external argument, unlike transitive verbs with null impersonal subjects, which enter the derivation with an external argument, albeit null. The stems of anticausative verbs can be distinguished by their template, which differs from that of the template of their transitive and unergative counterparts (transitive/unergative CCəC vs. unaccusative CCiC). Though it is the case that all Split-S dialects are PCC abiding, e.g. (21a), 1st and 2nd person objects surface in the anticausative construction (21b), since anticausative verbs have no external argument,

and hence no PCC intervener. This distinguishes the anticausative construction from the 'null impersonal subject' construction in (20b), where 1st and 2nd person objects do not surface:

(21) **Jewish Sanandaj**

    a.   **transitive** (stem *grəš*)

3ms.	*grəš-∅-le*	'He pulled him'
3fs.	*gərš-á-le*	'He pulled her'
3pl.	*gərš-í-le*	'He pulled them' etc.

2ms.	* *gərš-et-le*	1ms.	* *grəš-na-le*
2fs.	* *gərš-at-le*	1fs.	* *gərš-an-le*
2pl.	* *gərš-etun-le*	1pl.	* *gərš-ex-le*

    b.   **anticausative** (stem *griš*)

3ms.	*gríš-∅*	'He got pulled'
3fs.	*gríš-a*	'She got pulled'
3pl.	*gríš-i*	'They got pulled,' etc.

2ms.	*gríš-et*	1ms.	*gríš-na*
2fs.	*gríš-at*	1fs.	*gríš-an*
2pl.	*gríš-etun*	1pl.	*gríš-ex*

Barwar, which is not a split-S dialect but an Extended-Ergative dialect, marks its (lexically restricted) anticausatives with ergative affixes (in all persons) rather than absolutive affixes (22a), distinguishing them from the null impersonal subject construction (22b):

(22)   **Christian Barwar**

    a.   twir-re   (< twir-le)

        break_PERF-ERG.3MS

        'It broke.' (anticausative)

    b.   twir-∅

        break_PERF-ABS.3MS

        'It was broken.' (null impersonal subject)

3.3. Dynamic-stative dialects

In the third type of dialect, the extension of the ergative suffix to unaccusative verbs is optional. The absolutive marking of unaccusative verbs survives as a perfective stative (present perfect) as in (23c), with the ergative marking appearing in dynamic unaccusatives as in (23d). For further details about this type of dialect see Khan (2008b):

(23)   **Jewish Urmi**

    a.   barux-aw-i   brat-i   gərš-a-lu

        friend_P-my   daughter-my   pull_PERF-ABS.3FS-ERG.3P

        'My friends pulled my daughter.'

    b.   kalba   nwəx-le

        dog   bark_PERF- ERG.3MS

        'The dog barked.'

    c.   brat-i   qim-a

        daughter-my   rise_PERF-ABS.3FS

        'My daughter has risen.'

    d.   brat-i   qəm-la

        daughter-my   rise_PERF-ERG.3FS

        'My daughter rose.'

4. Summary of the classification of NENA dialects

4.1. Summary of ergativity patterns

Jewish Sulemaniyya, Jewish Urmi and Christian Barwar data are from Khan (2004, 2008a,b).[4]

(24)

	Split-S	**Dynamic-Stative**	**Extended-Erg**
Perfective stem	**J Sulemaniyya**	**J Urmi**	**C Barwar**
he opened it	pləx-∅-le	pləx-∅-le	pθíx-∅-le
	open-ABS-ERG	open-ABS-ERG	open-ABS-ERG
it opened	plix-∅	pləx-le	pθíx-le
	open-ABS	open-ERG	open-ERG
it has opened		plix-∅	
		open-ABS	
he cut it	qṭe-∅-le	qṭe-∅-le	qṭí-∅-le
	cut-ABS-ERG	cut-ABS-ERG	cut-ABS-ERG
it got cut	qəṭe-∅	qṭe-le	qṭí-le
	cut-ABS	cut-ERG	cut-ERG
it has got cut		qəṭe-∅	
		cut-ABS	
he destroyed it	xrəw-∅-le	məxrəw-le-le[5]	xru-∅-le
	destroy-ABS-ERG	destroy-ERG-ACC	destroy-ABS-ERG
it got destroyed	xriw-∅	xrəw-le	xru-le
	destroy-ABS	destroy-ERG	destroy-ERG
it has got destroyed		xriw-∅	
		destroy-ABS	

4.2. Classification of NENA dialects[6]

(25)

Split-S	**Dynamic-Stative**	**Extended Ergative**	
PCC-abiding	*PCC-abiding*	*PCC-obviating*	*PCC-abiding*
J Sulemaniyya	J Urmi	J Amedia	J Arbel
J Kerend	J Rustaqa	C Ashitha	J Zakho
J Sanandaj	J Koy Sanjaq	C Urmi	C Barwar
J Bokan	J Batase	C Harbole	C Qaraqosh
J Saqəz	C Hertevin	C Marga	*and the majority of remaining dialects*
C Ṭuroyo	C Bohtan		
	C Malaḥso[7]		

---

[4] For the sake of convenience, henceforth the abbreviations J and C will be used for *Jewish* and *Christian*, respectively in the names of dialects.
[5] As mentioned in footnote 2, we do not discuss in this paper cases where ACC replaces ABS in perfective verbs.
[6] The lists of dialects given in this classification schema are illustrative rather than exhaustive.
[7] C Ṭuroyo and C Malaḥso are not within NENA, but belong to the Ṭuroyo group of Neo-Aramaic dialects.

5. The analysis of ergativity

There is an ongoing debate in the literature concerning the nature of ergative Case, whether it is structural (Bittner, 1994; Bittner and Hale, 1996 ao) or inherent (e.g. Mahajan, 1989; Nash, 1996; Woolford, 1997; Legate, 2002, 2008; Aldridge, 2004, 2008a,b; Laka, 2006; Ura, 2006). The evidence from NENA seems to support the structural view. True, in the Split-S dialects, only subjects which are external arguments are ergative, and this is compatible with the view of ergative Case as inherent. But in Extended-Erg dialects, the subject of unaccusative verbs is ergative, favouring the view of ergative Case as structural:

(26)   a.   **J Sanandaj (Split-S)**
               brat-i   qim-a
               daughter-my   rise$_{PERF}$–ABS.3FS
               'My daughter rose.'

        b.   **C Barwar (Extended-Erg)**
               brat-i   qim-la
               daughter-my   rise$_{PERF}$–ERG.3FS
               'My daughter rose.'

Among structural analyses of ergative Case, the data from NENA is incompatible with the *Case Parameter* of Levin and Massam (1985), or the *Obligatory Case Parameter* (Bobaljik, 1993; Laka, 1993, 2006; Rezac, 2008), whereby v assigns the absolutive Case in ergative languages. Not all internal arguments are assigned absolutive Case in NENA, the argument of unaccusative verbs is marked ergative in Extended-Erg dialects, as in (26b).

We therefore adopt an analysis according to which, in the perfective aspect, v structurally assigns ergative Case, but the presence of v is parametrized. The variation in whether v is required/ allowed/ disallowed is the parameter that distinguishes ergativity in the three types of NENA dialects. v is obligatorily merged in Extended-Erg dialects, and assigns ergative Case to its argument if it has one, or to the internal argument otherwise (e.g. in unaccusative verbs). In the Dynamic-Stative dialects, v is optionally merged, and in the Split-S dialects – it is never merged:

(27)   **The v Parameter**
        Extended-Erg   v
        Split-S   *v
        Dynamic-Stative   (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. It is argued in Doron (2003) and Alexiadou et al. (2006) that v may be merged in a derivation without introducing the external argument, since in these approaches, it is a separate Voice-head which introduces the external argument (and assigns accusative Case in nominative-accusative languages). 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).

We propose an analysis which accounts for the distribution among the different types of NENA dialects of the syntactic characteristics described in sections 1–4 (SOV vs. SVO word order, PCC-abiding, anticausatives, impersonal null subjects):

(28)   **NENA syntactic characteristics**
        a.   Dialects with SOV word-order are PCC-abiding.
        b.   Dialects with productive anticausative derivations are Split-S.
        c.   Dialects with 'impersonal null subject' derivations are Extended-Erg.

We start by showing the various imperfective and perfective derivations in NENA. We do this separately for SOV and SVO dialects. SOV dialects are found in NENA in all three ergativity types: Extended-Erg, Dynamic-Stative and Split-S. SVO dialects, on the other hand, are predominantly Extended-Erg.[8] We leave the latter fact unaccounted for.
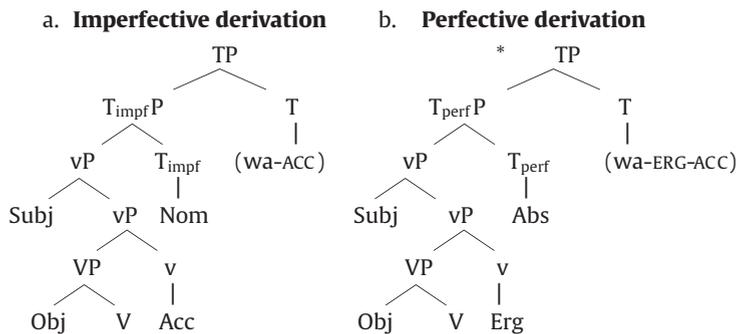
5.1. Split ergativity in SOV dialects

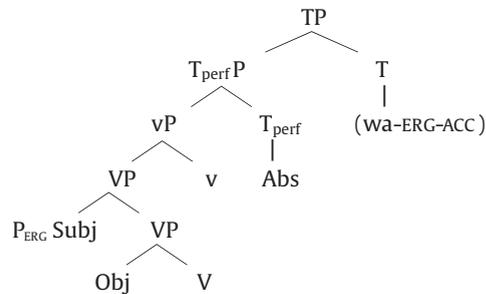The imperfective and perfective structures are shown in (29) for SOV dialects.

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[8] Other than C Ṭuroyo, which is an SVO Split-S dialect, and C Hertevin – an SVO Dynamic-Stative dialect.

In an SOV structure, v is not adjacent to the subject, because of the intervening object. This is not a problem in the imperfective structure in (29a), where the subject is assigned nominative Case by T_{impf}. But this poses a problem in the perfective structure (29b), where the subject is not adjacent to v and hence cannot be assigned ergative Case by it (we follow Mahajan, 1994 who motivates the adjacency requirement for ergative Case). Thus the perfective derivation (29b) is ungrammatical:
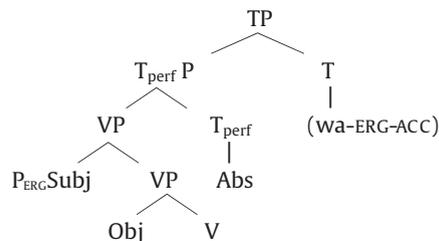
(29) **The derivation of split ergativity in SOV dialects**

    a. **Imperfective derivation**   b. **Perfective derivation**

```
            TP                              *      TP
          /    \                                 /    \
      T_impf P   T                        T_perf P     T
       /   \     |                         /   \       |
     vP   T_impf (wa-ACC)               vP   T_perf  (wa-ERG-ACC)
    /  \    |                          /  \     |
  Subj  vP  Nom                      Subj  vP   Abs
       /  \                               /  \
      VP   v                             VP   v
     /  \  |                            /  \  |
   Obj  V  Acc                        Obj  V  Erg
```

b'. **Perfective derivation (Extended-Erg dialects)**

```
                    TP
                  /    \
             T_perf P    T
              /   \      |
            vP   T_perf (wa-ERG-ACC)
           /  \    |
         VP    v   Abs
        /  \
  P_ERG Subj  VP
            /  \
          Obj   V
```

b''. **Perfective derivation (Split-S dialects)**

```
                    TP
                  /    \
             T_perf P    T
              /   \      |
            VP   T_perf (wa-ERG-ACC)
           /  \    |
  P_ERG Subj  VP   Abs
            /  \
          Obj   V
```

The only grammatical perfective derivations in an SOV structure are those where the Subject is merged as an adjunct to VP, as the complement of a null P_{ERG} which assigns it ergative Case. Accordingly, perfective SOV derivations in all dialects have adjunct subjects. This is so in Extended-Erg dialects (29b′) and in Split-S dialects (29b″), but also in Dynamic-Stative dialects. We assume that Dynamic-Stative dialects only have derivation (29b′): though the v Parameter (26) does not require v in every derivation in Dynamic-Stative dialects, v is required in a transitive derivation.
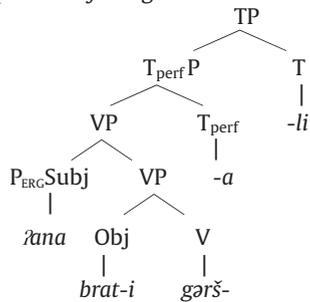
In the derivations in (29), Nom and Abs Case are assigned by T_{impf} and T_{perf} respectively. Thus both Nom and Abs are assigned by T, accounting for their morphological identity. The morphological identity of Acc and Erg cannot be similarly explained, as Acc is assigned by v whereas Erg is assigned by v or P_{ERG}. Rather, the latter identity stems from the syncretism of accusative and dative Case, mentioned in section 1.

In derivations (29b′–b″), Subj and Obj are in the same domain, thus Subj is a PCC intervener. We therefore predict that all SOV dialects are PCC-abiding, as stated in characteristic (28a), which is indeed the case. Among the Extended-Erg dialects, all SOV dialects are PCC abiding, for example J Arbel (Khan, 1999). Since Dynamic-Stative and Split-S dialects are in general all SOV, they are also PCC abiding.

Below is an illustration of the Split-S derivation (29b″):

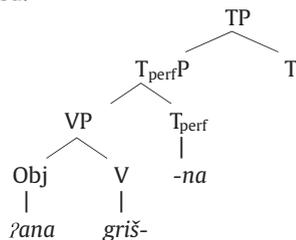(30) **Perfective derivation in Split-S dialects** (J Sanandaj)

ʔana brat-i   gərš-a-li
I   daughter-my pull$_{PERF}$-ABS.3FS-ERG.1S
'I pulled my daughter.'

```
                        TP
                      /    \
                 T_perfP      T
                 /    \        |
              VP      T_perf   -li
             /  \       |
       P_ERG Subj VP    -a
          |      /  \
        ʔana   Obj   V
                |     |
              brat-i gərš-
```
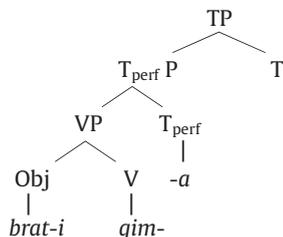
Since the subject is an adjunct in (30), i.e. not required by a v, it is not obligatory, and may be omitted, which productively generates anticausative examples.[9] This is only the case in Split-S dialects, where the subject is an adjunct, thus accounting for characteristic (28b). The derived subject is not restricted to 3rd person (as there is no intervening external argument); for example, in (31) the derived subject is 1st person. Moreover, since v is not merged in the perfective, subjects of anticausative and unaccusative verbs are not marked as ergative, and hence are marked as absolutive by T$_{PERF}$.

(31) **Anticausative derivation** (J Sanandaj)

ʔana gríš-na
I   pull$_{PERF}$–ABS.1MS
'I got pulled.'

```
                        TP
                      /    \
                 T_perfP      T
                 /    \
              VP      T_perf
             /  \       |
          Obj    V      -na
           |     |
         ʔana  griš-
```

(32) **Unaccusative derivation** (J Sanandaj)

brat-i   qím-a
daughter-my   raise$_{PERF}$–ABS.3FS
'My daughter rose.'

```
                        TP
                      /    \
                 T_perf P      T
                 /    \
              VP      T_perf
             /  \       |
          Obj    V      -a
           |     |
         brat-i qim-
```
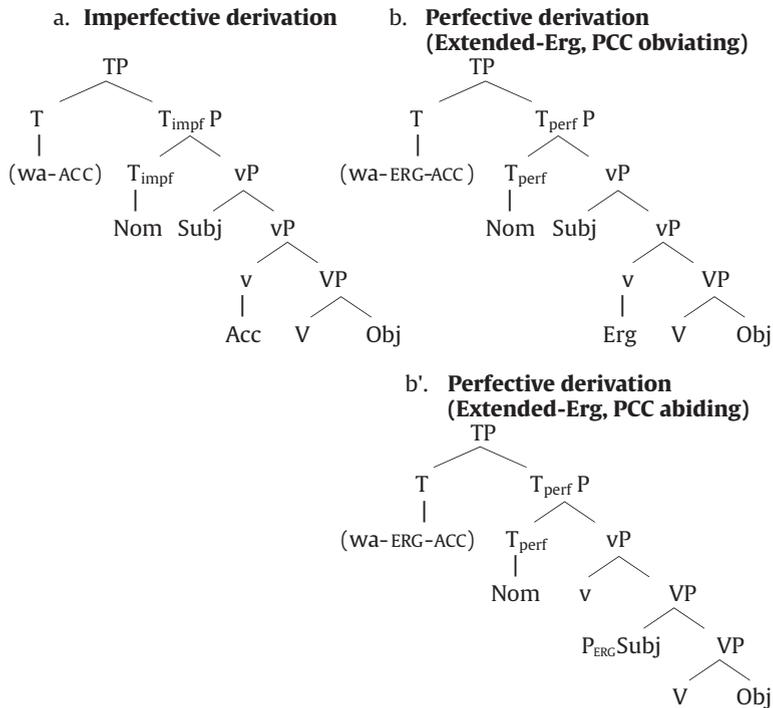
5.2. Split ergativity in SVO dialects

Imperfective and perfective derivations are shown in (33) for SVO dialects. Here we only discuss Extended-Erg dialects, since roughly all SVO dialects are Extended-Erg. In an SVO structure, the subject is adjacent to v, hence in the perfective

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[9] Other than for verbs where both arguments of the verb are internal, such as subject–experiencer verbs.

structure (33b) it is assigned ergative Case by v (following again Mahajan, 1994 for the adjacency requirement on ergative Case assignment):

(33)   **The derivation of split ergativity in SVO dialects**

a. **Imperfective derivation**

```
            TP
          /    \
        T       T_impf P
        |      /      \
    (wa-ACC) T_impf    vP
             |       /    \
            Nom    Subj    vP
                        /     \
                       v       VP
                       |      /   \
                      Acc    V    Obj
```

b. **Perfective derivation**
(Extended-Erg, PCC obviating)

```
            TP
          /    \
        T       T_perf P
        |      /      \
 (wa-ERG-ACC) T_perf   vP
             |       /    \
            Nom    Subj    vP
                        /     \
                       v       VP
                       |      /   \
                      Erg    V    Obj
```

b'. **Perfective derivation**
(Extended-Erg, PCC abiding)

```
            TP
          /    \
        T       T_perf P
        |      /      \
 (wa-ERG-ACC) T_perf   vP
             |       /    \
            Nom     v      VP
                         /    \
                     P_ERG Subj  VP
                              /   \
                             V    Obj
```

Dialects with perfective derivations (33b) are the PCC-obviating dialects (e.g. J Amedia, Hoberman, 1989), since a vP-external subject does not compete with the object for agreement with T. Dialects with perfective derivations (33b′) are the PCC-abiding dialects (e.g. C Barwar), since in these derivations Subj and Obj are in the same domain, and thus Subj competes with Obj for agreement.

We provide an example of a perfective derivation in C Barwar, structure (33b′):

(34)   **Transitive derivation** (C Barwar)

ʔana   griš-a-li   brat-i
I   pull_PERF-ABS.3FS-ERG.1S   daughter-my
'I pulled my daughter.'

In all Extended-Erg dialects, irrespective of the PCC, there is no derivation without v, unlike the case of split-S dialects. v is always merged in Extended-Ergative dialects, therefore unaccusative subjects are marked as ergative:

(35)   **Unaccusative derivation** (C Barwar)

brat-i   qim-la
daughter-my   rise_PERF-ERG.3FS
'My daughter rose.'

But there is no anticausative derivation (other than for a lexically determined class of verbs such as *twir-re* 'it broke', cf (22a), which are unaccusative even in the imperfective), since, by the setting of the v Parameter, v is required in the derivation, and in turn requires an external arg if there is one:

(36)   * **Anticausative derivation** (C Barwar)

   * brat-i   griš-la
     daughter-my   pull_PERF-ERG.3FS
     'My daughter got pulled.'

If v itself is interpreted as an impersonal argument, we derive examples of null impersonal subject where the ergative agreement clitic is dropped. Clearly, this is only the case where v is obligatory, thus accounting for characteristic (28c).

In PCC abiding dialects, such as C Barwar, the impersonal v subject competes with the object for person agreement. Accordingly, we only find null impersonal subjects with 3rd person agreement:

(37)   **'Null impersonal subject' derivation** (C Barwar)

    a.   brat-i   griš-a

         daughter-my   pull$_{\text{PERF}}$-ABS.3FS

         'My daughter was pulled.'

    b.   * ʔana   griš-ən

          I   pull$_{\text{PERF}}$-ABS.1MS

         'I was pulled.'

In J Amedia, which is PCC-obviating, these 'null impersonal subject' examples do show 1–2–3 person agreement:

(38)   **Jewish Amedia**

    a.   brat-i   griš-a

         daughter-my   pull$_{\text{PERF}}$-ABS.3FS

         'My daughter was pulled.'

    b.   ʔahi   griš-ət

         you (s.) pull$_{\text{PERF}}$-ABS.2MS

         'You were pulled.'

    c.   ʔana griš-ən

         I   pull$_{\text{PERF}}$-ABS.1MS

         'I was pulled.'

6. Conclusion

The NENA dialects present an intricate picture of variation in ergativity, which has interesting implications for recent theoretical debates. NENA dialects can be divided into three types according to their degree of ergativity. In Split-S dialects, which exhibit the highest degree of ergativity, the ergative marker is restricted to transitive and unergative verbs, and is not found with unaccusative verbs. In Dynamic-Stative dialects, the ergative marker is also optionally found with unaccusative verbs. Dialects exhibiting the lowest degree of ergativity, the Extended-Ergative dialects, obligatorily mark unaccusative subjects as ergative. This is surprising from the perspective of theories of ergativity, since it contradicts Marantz's Generalization, from which it follows that no unaccusative subjects can be ergative. According to our findings, ergativity is a wider phenomenon than has generally been recognized. We provide evidence that the boundaries of ergativity should be pushed back to include a wider range of alignments.

In NENA, not all internal arguments are assigned absolutive Case, some are even ergative. This evidence favours the structural approach in the debate on whether ergative Case is structural or inherent. It also points against approaches where v assigns absolutive Case in ergative languages, such as the *Obligatory Case Parameter*.

We have shown that v assigns ergative Case, and that the parametric variation between the different dialects reduces to the distribution of v. v is obligatory in Extended-Erg dialects, and assigns ergative Case to its argument if it has one, or to the internal argument otherwise. In Dynamic-Stative dialects, the presence of v is optional. In Split-S dialects – v is obligatorily missing; this is nevertheless compatible with verbs having an external argument, since ergative languages allow the merge of the external argument as an adjunct.

The properties of NENA seem to indicate that merging an ergative-marked external argument VP-internally, similarly to a possessive adjunct of nominalization, is one possible option, found in ergative dialects with a higher degree of ergativity, which are also PCC abiding and often SOV. But in dialects with a lower degree of ergativity, the external argument is not an adjunct but an argument of v; these dialects are PCC obviating and are always SVO.

Further research is required to establish whether the analysis offered here applies to extended ergativity in other languages.

Acknowledgements

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