Dyirbal Ergativity
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1 Introduction

(1) a. Transitive Subject (A)
   ngayguna banggu yaga-nggu balgan
   me.ACC NCI.there.ERG man-ERG hit.NFut
   “man is hitting me” (60)
b. Intransitive Subject (S)
   bayi yaga walmanyu
   NCI.there.ABS man.ABS got.up
   “man got up” (67)
c. Transitive Object (O)
   ngadya bayi yaga balgan
   I.NOM NCI.there.ABS man.ABS hit.NFut
   “I hit the man” (73)

Syntactic Ergativity:

“ergativity as found in the well-known case of Dyirbal ... in which the ergative-absolutive contrast
is not only one of case marking or agreement but apparently the basis of syntactic organization
throughout the grammar of the language” (Dowty 1991:582)

Analyses:

- Dixon (1972): S and O are generated as daughter of the sentence node, sister to VP, and both receive
  NOM case.2
  as sister to V to form VP; S, O combine with this VP)
- Bittner & Hale (1996a) (also Ura 2006): A remains VP-internal; S, O raise to specifier of IP (raising
  motivated by Case/licensing requirements)3
- Manning (1995): S, O are grammatical subjects; A, S are subjects at the level of argument structure

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1 Thank you to the audiences at the linguistics colloquia at the University of Pennsylvania (2007) and Cornell University
   (2007) for comments and discussion. Glosses have been added and regularized for clarity. rC indicates a retroflex consonant,
   Ch indicates a dental consonant, Cy indicates a palatal consonant, ng is the velar nasal, NC is noun class. Unless otherwise
   specified, Dyirbal examples are from Dixon (1972). Glosses for case are based on morphological patterning, not the abstract
   Case underlying the morphology.

2 As we will see below, pronouns pattern as NOM/ACC. Dixon posits case realization rules for pronouns that refer to case
   and to the feature [+actor], where [+actor] is defined as S and A, regardless of theta-role.

3 Note that Bittner & Hale take the specifier of IP to be an A-bar position in all languages.
Today:

- Syntactic Ergativity in Dyirbal is unrelated to subjecthood
- S and O do not occupy a unique syntactic position
- S and O receive distinct Cases
- S and O are unified only by both receiving a **Phasal Case**

## 2 Syntactic Ergativity

### Relative clauses: only the absolutive can be relativized

(2) a. S

ngadya balan dyugumbl nyina-ngu buɾan
I.NOM NCII.there.ABS woman.ABS sit-Rel see.NFut

“I am watching the woman who is sitting down” (100)

b. O

ngadya nyinanyu yugu-ngga yaɾa-nggu nudi-ngu-ra
I.NOM sit.NFut tree-LOC man-ERG cut-Rel-LOC

“I am sitting on the tree the man felled” (102)

c. O (instrumental applicative)

ngadya bala yugu banggul yaɾa-nggu bagul dyugumbl-gu
I.NOM NCIV.there.ABS stick.ABS NCI.there.ERG woman-DAT
balgal-ma-ngu nyiman
hit-Appl-Rel hold.NFut

“I caught hold of the stick the man was beating the woman with” (100)

d. S (agent of antipassive)

bayi yaɾa [bagal-nga-ngu bagul yuri-gu] banaganyu
NCI.there.ABS man.ABS spear-APass-Rel NCI.there.DAT kangaroo-DAT return.NFut

“man who speared kangaroo is returning” (101)

Relativization is an A-bar property. What about subjecthood?

Two constructions: “control”, “coordination”

**“Control”** (with purposive affix): only the absolutive can be controlled PRO (Anderson 1976:17, Levin 1983:259-267, Bok-Bennema 1991:11, inter alia)

(3) a. S

yabu nguma-nggu gigan [banagay-gu]
mother.ABS father-ERG tell.to.do.NFut return-Purp

“father told mother to return”

b. O

yabu ngguma-nggu gigan [gubi-nggu mawal-i]
mother.ABS father-ERG tell.to.do.NFut doctor-ERG examine-Purp

“father told mother to be examined by the doctor” (Dixon 1994:169)
Is there any evidence that these involve control?\(^4\)

Obligatory null absolutive? → NO

(4) Anydya banggul burubay dyulman
particle NCI.there.ERG boil.ABS squeeze.NFut
“The boil was squeezed by him,

bayi nyalngga mayi-yaray-gu.
NCI.there.ABS child.ABS come.out-begin-Purp

with the result that a male child came out” (369)

(5) a. anydya ban midi miyanday-gu banggun bulgandu
Particle NCI.there.ABS small.ABS laugh-Purp NCII-there-ERG big.ERG
dyabil-gani-nyu
stop-repeatedly-NFut
“The small[er woman] wanted to laugh, [but] was stopped by the big[er woman]” (374)

b. ngadya ban buřal-i dambun
I.NOM NCII.there.ABS see-Purp Dambun.ABS
“I wanted to see Dambun” (384)

NOTE: not just overt controller. No control required:

(6) dambun-da yanggun gindaginda-mal-bila dambun
Dambun-LOC NCII.here.ERG look.with.light-InstrAppl-bila Dambun.ABS
“This girl might shine a light on Dambun!”

nganadyi dyanydya manmay-gu yalunggari
we.pl.NOM now shift.camp-Purp here.ALL.north

“And we might all have to move camp to the north” (386)

Indeed, Dixon (1972) gives the following to illustrate that it is “possible for the FIRST sentence in a topic chain to have an implicated VC [purposive verb]” (68) [emphasis original])

(7) a. balan dyugumbil miyanday-gu
NCI.there.ABS woman.ABS laugh-Purp
“woman wants to laugh” (i.e. something has happened to make her want to laugh, and she will have to restrain herself to avoid doing so)

b. bayi yaŋa yamu-li
NCI.there.ABS man go-Purp
“man has to go out” (for some reason)

c. bayi yaŋa banggun dyugumbi-ŋu balgal-ngay-gu
NCI.there.ABS man.ABS NCII.there.DAT woman-DAT hit-APass-Purp
“something happened to enable or force the man to hit the woman” (69)

\(^4\)cf Marantz 1984:199, who states that the construction “only superficially resembles such [control] structures”, but does not pursue the issue; and Manning 1996:66, who maintains that the construction is not control, but still proposes an absolutive subject.
Unrealized tense interpretation? → NO

Dixon 1972 (68): the purposive relates to a previous event, and is either an “intended” action, or a “natural (but perhaps unplanned) consequence”:

(8) a. bayi yaŋa waynydyin yalu banggun dundu-nggu mandyal-i NCI.there.ABS man.ABS go.uphill.NFut to.here NCII.there.ERG bird-ERG point.out-Purp
   “man came uphill towards here, resulting in a bird’s pointing out his presence” (68)

b. ṱulu banggul dyurungadyurunganyu gunydyan; munandyay-gu heart.ABS NCI.there.ERG drink.without.stopping.Redup.NFut drink.NFut vomit.Repeat-Purp
   bayi NCI.there.ABS
   “He drank from the heart without pausing for breath. As a result he vomited a lot” (373)

Aside: although Dixon often translates the purposive using an English control structure, he is inconsistent:

(9) Bala barmba banggul manggan NCIV.there.ABS quartz.ABS NCI.there.ERG pick.up.NFut
   ‘the quartz was picked up by him,
   baygul-i diban-da bash-Purp rock-LOC
   and bashed on a rock, (Dixon 1972:144)

(10) Buŋan banggul barmba barmbi-ngu manggan see.NFut NCI.there.ERG quartz.ABS glitter-Rel.ABS pick.up.NFut
   ‘He saw a piece of quartz glittering, picked it up,
   baygul-i diban-da bash-Purp rock-LOC
   to bash it on a rock,
   yagi bula-bil-i split.ABS two-VF-Purp
   so that it split into two pieces, (Dixon 1972:377)

He also translates similar constructions with tense-marked verbs using English control:

(11) a. balan dyugumbil yamu bagum mirany-gu babil-nga-nyu NCIII.there.ABS woman.ABS go.NFut NCHI.there.DAT bean-DAT scrape-APass-NFut
   “woman went to scrape beans” (74)

b. balan dyugumbil yamu bagum mirany-gu babil-ngay-gu NCIII.there.ABS woman.ABS go.NFut NCHI.there.DAT bean-DAT scrape-APass-Purp
   “woman went to scrape beans” (74)

Summary: No evidence for control based on absolutive.
“Coordination”: In coordination, the absolutive is shared rather than the subject.

(12) a. S-S (agent of antipassive)

nguma [banaga-nyu] [bural-nga-nyu] yabu-gu
father.ABS return-NFut see-APass-NFut mother-DAT

“Father returned and (he) saw mother” (Dixon 1994:13)

b. S-O

nguma [banaga-nyu] [yabu-nggu] bura-n
father.ABS return-NFut mother-ERG see-NFut

“Father returned and mother saw (him)” (Dixon 1994:12)

Is there any evidence that these involve coordination?

No coordinator.

Dixon (1972) refers to this construction as a topic chain:

“a topic chain: this entails each sentence being transformed into a form in which the common NP is topic NP (i.e. is in nominative [absolutive] case). This NP may only be stated once, at the beginning of the topic chain; optionally all or part of it may be repeated later in the chain (commonly, just the noun marker may be repeated). Thus it is quite usual to encounter a chain of a dozen sentences all ‘commenting’ on a single topic occurrence.” (71)

(13) a. bayi wilmanyu burbula.ABS

NCI.there.ABS stand.NFut Burbula.ABS

“Burbula stood up;

b. gubi-nggu bajaran
gubi-ERG punch.NFut
the gubi punched (him);

c. badyi-gu
fall-Purp
causing (him) to fall down.

d. bangum bayi balbaliyaranyu
then NCI.there.ABS turn.over.NFut
And then he began to turn over

e. walmay-gu
stand-Purp
in order to get up.

f. rudu bajaran bari-nggu
nape.of.neck.ABS hit.NFut tomahawk-INSTR
The hollow in the back of (his) neck was hit [by the gubi] with a tomahawk;

g. buga-bil-i
dead.VF-Purp
and as a result (he) died.” (72)

The chain may continue through direct speech:

(14) a. nyalngga gadyi wuga ngadya gulnggan
child.ABS PART give.Imper I.NOM breastfeed.NFut

“A baby! Give (him to me); I’ll breastfeed (him).
b. banggun guhnggan ngamundu
   NCI.there.ERG breastfeed.NFut breast.INSTR
   She fed (the child) with her breast.

c. bulga-ndu banggun ‘ngaygu-nay nguri wuga ngadya wuga-li ngamundu”
   big-ERG NCI.there.ERG my.GEN PART give.Imper I.NOM give-Purp breast.INSTR
   The big (woman) (said) ‘Give me (the child) for my turn, so that I can give (him) my breast’.

(371-372)

Summary: There is no evidence for coordination based on the absolutive.

Instead, both the “control” and the “coordination” appear to be topic drop (note that these verb forms are interspersed in the topic chains above).

cf topic-drop (e.g. Huang 1984).

(15) Mandarin
   a. Zhongguo, e difang hen da
      China e place very big
      “(As for) China, (its) land area is very large”
   b. e, renkou hen duo
      population very many
      “(Its) population is very big.”
   c. e, tudi hen feiwo
      land very fertile
      “(Its) land is very fertile”
   d. e, qihou ye hen hao
      climate too very good
      “(Its) climate is also very good.”
   e. e, women dou hen xihuan
      we all very like
      “We all like (it).”

Summary: The syntactic ergativity to the absolutive is not based on an S/O subject, but rather the A-bar properties of topic and ability to relativize.

3 Morphological Ergativity

Dyirbal shows morphological split ergativity based on nominal-type:

(16) Noun Class Markers: ERG/ABS
   a. A
      yanggul, banggul, nganggul
      NCI.here.ERG NCI.there.ERG NCI.notvisible.ERG
   b. S
      giyi, bayi, ngayi
      NCI.here.ABS NCI.there.ABS NCI.notvisible.ABS
   c. O
(17) Pronouns: NOM/ACC
   a. A
      ngadya bayi yata balgan
      I.NOM NCI.there.ABS man.ABS hit.NFut
      “I hit the man” (73)
   b. S
      ngadya nyinanyu
      I.NOM sit.NFut
      “I sat down” (73)
   c. O
      ngayguna banggul yata-nggu balgan
      me.ACC NCI.there.ERG man-ERG hit.NFut
      “Man is hitting me” (60)

More complex than just nominals vs pronouns.

Full specification
(18) “who”: ERG/NOM/ACC
    A  S  O
    wanydyu wanya wanyuna
    who.ERG who.NOM who.ACC (53)

Optionality
(19) proper names, human common nouns: ERG/ABS or ERG/NOM/ACC
    a. A
       burbula-gu
       Burbula-ERG
    b. S
       burbula
       Burbula.ABS/NOM
    c. O
       burbula OR burbula-nya
       Burbula.ABS burbula-ACC (43)

Dialect differences
(20) “who”: ERG/ABS (Giramay)  (21) “1sg”, “2sg”: ERG/NOM/ACC (Giramay)
    a. A
       wanydyu
       who.ERG
       ngadya, nginda
       LERG you.ERG
    b. S
       wanyunya
       who.ABS
       ngayba, ngiiba
       I.NOM you.NOM
    c. O
       wanyunya
       who.ABS (53)
       nganya, ngina
       me.ACC you.ACC (50)
Approach to split ergativity (Legate 2008): distinction between (i) differential abstract Case assignment in the syntax; and (ii) differential morphological realization of identical abstract Cases (i.e. syncretism)

(22) Differential Morphological case
   a. based on properties of lexical items
   b. modifiers show case-mismatches

(23) Differential Syntactic Case
   • based on properties of the clause, properties of DP as a whole
   • modifiers do not show case-mismatches

(24) Latin Differential Morphological case
   a. tristis regis
      sad.GEN king.GEN
      “of the sad king”
   b. trístí regí
      sad.DAT king.DAT
      “to the sad king”
   c. tristis puellae
      sad.Gen girl.Gen/DAT
      “of the sad girl”
   d. trístí puellae
      sad.DAT girl.Gen/DAT
      “to the sad girl” (Calebrese 2006:9)

Dyirbal is differential morphological case:

Noun class markers, adjectives, nouns agree in case:

(25) a. bayi wanggal bangul yaça-ngu bulgα-nu banggun
      NCI.there.ABS boomerang.ABS NCI.there.GEN man.GEN big.GEN NCII.there.ERG
dyugumbi-ɾu buɾa
      woman-ERG see.NFut
      “woman saw big man’s boomerang” (107)

When pronouns combine with modifiers case mismatches arise:

(26) Pronoun and relative clause
   a. nyada [waynydyi-ngu]-ɾu balan duŋgumbi buɾa
      I.NOM go.uphill-Rel-ERG NCII.there.ABS woman.ABS see.NFut
      “I saw woman as I was going uphill”
   b. nyada [waynydyi-ngu] miyaŋdanyu
      I.NOM go.uphill-Rel.ABS laugh.NFut
      “I laughed as I went uphill”
   c. ngayguna [waynydyi-ngu] banggul yaça-ngu buɾa
      I.ACC go.uphill-Rel.ABS NCI.there.ERG man.ERG see.NFut
      “man saw me going uphill” (133)


Cf Calabrese’s (2006) related distinction between absolute syncretism versus contextual syncretism.
(27) Pronoun and NC marker
   a. (Manu dialect)
      ngadya giyi  baninyu
      I.NOM  NCi here.ABS  come.NFut
      “I’m the one that came.”
   b. ngayguna giyi  yaŋa-nggu  balgan
      me.ACC  NCi here.ABS  NCi there.ERG  man-ERG  hit.NFut
      “I’m the one the man is hitting” (63)
   c. ngayguna  banggul  yaŋa-nggu
      me.ACC  NCi there.ERG  woman-ERG  hit.NFut
      “woman hit me” (63)

(28) Pronoun and noun/adjective
   a. nginda  wuyi-nggu,  bam  mirany  babi
      you NOM  old-ERG  NCii there.ABS  bean.ABS  slice.Imp
      “you, old [person], slice the beans!” (63)
   b. nginda  bayi  yaŋa  bani
      you NOM  NCii there.ABS  man.ABS  come.Imp
      “you, man, come here!”
   c. ngayguna  mambu  banggul  yaŋa-nggu
      me.ACC  back.ABS  NCii there.ERG  man-ERG  hit.NFut
      “man is hitting my back” (63)

**Conclusion:** Dyirbal exhibits morphological syncretism between ERG and NOM for pronouns, and between ACC and NOM for nouns.\(^7\)

<table>
<thead>
<tr>
<th>Pronouns</th>
<th>Nouns</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;NOM&quot;</td>
<td>ERG</td>
</tr>
<tr>
<td></td>
<td>NOM</td>
</tr>
<tr>
<td>ACC</td>
<td>&quot;ABS&quot;</td>
</tr>
</tbody>
</table>

Note that pronouns show identical behaviour for syntactic ergativity, despite distinct case marking.

Btw, Dixon (1972, 1994) is explicit about this, although this doesn’t seem to have influenced analyses.

irrespective of realisational identities or differences, the unmarked syntactic identification between simple sentences is always of an S NP with an O NP (or S with S, or O with O) and never of an S or O NP with an A NP. (Dixon 1972:134; emphasis original)

in Dyirbal it is the function of an NP that determines its availability to grammatical operations, not its form. (Dixon 1994:16)

(29) Topic Chains: NOM/ACC
   a. ngadya baninyu
      I.NOM  come.NFut
      “I came here”
   b. ngayguna banggun  dyugumbi-ru
      I.ACC  NCii there.ERG  woman-ERG  hit.NFut
      “woman hit me”

\(^7\)See also Goddard 1982.
c. S-O
ngadya baninyu banggun dyugumbi-ᵱu balgan
I.NOM come.NFut NCII.there.ERG woman-ERG hit.NFut
“I came here and was hit by woman”
d. O-S
ngayguna banggun dyugumbi-ᵱu balgan baninyu
I.ACC NCII.there.ERG woman-ERG hit.NFut come.NFut
“I was hit by woman and came here” (131)

(30) Topic Chain: NOM/NOM
a. ngadya baninyu
I.NOM come.NFut
“I came here”
b. ngadya balan dyugumbil balgan
I.NOM NCII.there.ABS woman-ABS hit.NFut
“I hit woman” (131)
c. *ngadya baninyu balan dyugumbil balgan
I.NOM come.NFut NCII.there.ABS woman-ABS hit.NFut
“I came here and hit woman”
d. S-S (agent of antipassive)
ngadya baninyu bagun dyugumbil-gu balgal-nya-nyu
I.NOM come.NFut NCII.there.DAT woman-DAT hit-APass-NFut
“I came here and hit woman” (132)

(31) Purposive
a. ACC/NOM O-S (agent of antipassive)
ngayuna banggul yaŋa-nggu mundan bagum mirany-gu babil-ngay-gu
I.ACC NCI.there.ERG man-ERG take.NFut NCII.there.DAT bean-DAT scrape-APass-Purp
“man took me to scrape beans”
b. NOM/NOM S-S (agent of antipassive)
ngadya yanu bagum mirany-gu babil-ngay-gu
I.NOM go.NFut NCII.there.DAT bean-DAT scrape-APass-Purp
“I went to scrape beans” (74)

(32) Relative Clause
a. S
nyada [wayn̂ydyi-ngu]-ru balan dyugumbil buŋan
I.NOM go.uphill-Rel-ERG NCII.there.ABS woman.ABS see.NFut
“I saw woman as I was going uphill” (133)
b. O
ngayguma [banggul yaŋa-nggu balga-ngu] banggun dyugumbi-ᵱu buŋan
me.ACC NCII.there.ERG man-ERG hit-Rel NCII.there.ERG woman-ERG see.NFut
“woman saw me being hit by man” (100)

Furthermore, for nominals, an ergative can introduce a topic, IF the second verb is marked with -ngura. This suffix indicates that the topic was introduced in the ergative, and that the second event immediately follows the first.
(33) a. bala yugu banggul yaŋa-nggu madan (bayi yaŋa) NCIV.there.ABS stick.ABS NCI.there.ERG man-ERG throw.NFut NCI.there.ABS man.ABS waynydyi-ngura go.uphill-NGURA
   “man threw stick and then (he) [immediately] went uphill” (77)
b. bala yugu banggul yaŋa-nggu nudin (bayi yaŋa) NCIV.there.ABS tree.ABS NCI.there.ERG man-ERG cut.NFut NCI.there.ABS man.ABS bagul nyalngga-gu bunjul-ngu-ngura NCI.there.DAT child-DAT spank-APass-NGURA
   “man cut tree [until (he) stopped to] spank the boy” (78)

Nominative pronouns in A position also use this suffix: (cf the topic chain examples above, involving S nominative pronouns)

(34) ngadya bala yugu madan (ngadya) waynydyi-ngura I.NOM NCIV.there.ABS stick.ABS NCI.there.ERG go.uphill-NGURA
   “I threw stick and then (I) [immediately] went up hill” (77)

Revised Generalization: In Dyirbal the A-bar properties of topic and ability to relativize show syntactic sensitivity to nominative and accusative Case (regardless of morphological realization).

Note: sensitivity is to Case, not theta-role or merged position; subject of transitive behaves differently from subject of antipassive.

(35) a. * bala yugu banggul yaŋa-nggu madan waynydyin NCIV.there.ABS stick NCI.there.ERG man-ERG throw.NFut go.uphill.NFut
   “man threw stick and then (he) went uphill” (78)
b. bayi yaŋa baninyu bagun dyugumbil-gu balgal-nga-nyu NCI.there.ABS man.ABS come.NFut NCII.there.DAT woman-DAT hit-APass-NFut
   “man came here and hit woman” (130)

4 An Analysis

Ingredients for an analysis:

- Abstract nominative Case and abstract accusative Case are the *Phasal Cases*, associated with the phase heads, C and v (during the syntax, they may be passed down to the head of their sisters, T and V) (Chomsky 2005)
- A-bar features are associated with the phase heads, C and v.
- Agree (Chomsky 1998)

Proposal: The topic feature and the relativization feature in Dyirbal are *bundled* with Case on the phase heads (cf Chomsky 1998:40 on φ features).
Assuming Agree (Chomsky 2000 and subsequent), feature checking is based on closest c-command; the presence/absence of subsequent movement is an independent property.

= proposed analysis is neutral wrt syntactic position of arguments and word order in Dyirbal.

(36) a. bayi  wangal     bangul  yara-ngu   bulga-nu banggun
     NCI.there.ABS boomerang.ABS NCI.there.GEN man-GEN NGCII.there.ERG
dygumbi-ru bu ran
     woman-ERG see.NFut
     “woman saw big man’s boomerang”

b. bayi  yara-ngu   dygumbi-ru bu ran  wangal     banggun
     NCI.there.ABS man-GEN woman-ERG see.NFut boomerang.ABS NCII.there.ERG
     bangul       bulga-nu
     NCI.there.GEN big-GEN
     “woman saw big man’s boomerang” (107)

5 Conclusions and Implications

• syntactic ergativity in Dyirbal is A-bar sensitivity to the phasal Cases (nominative and accusative)
• additional support for ABS = NOM & ACC
• additional support for split ergativity as differential morphology
• evidence for syntactic sensitivity to abstract Case
References

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