

DJARU SYNTAX AND RELATIONAL GRAMMAR

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1 Introduction¹⁾

The Djaru language, of Kimberley, W.A., is a type of ergative language.²⁾ Morphologically, it is 'split-ergative' (cf. Silverstein 1976), but syntactically it is primarily nominative-accusative.

It has been claimed that grammatical relations play a central role in the syntax of natural languages. A few theories of grammar have been proposed on the basis of this claim. They are called Relational Grammar (hereafter RG).³⁾

The current models of RG do not always fit in the syntactic facts of Djaru. They are too strong hypotheses. In order to be universally applicable, they will have to be weakened.

2 Morphology of Djaru

On the whole, nouns and free pronouns have an absolutive-ergative declension. That is, the absolutive case marks intransitive subject (hereafter Si) and transitive object (hereafter Ot), while the ergative case marks transitive subject (hereafter St). More specifically, nouns have the following cases:

ABSOLUTIVE ERGATIVE/INSTRUMENTAL LOCATIVE
DATIVE-1 DATIVE-2 ALLATIVE ABLATIVE

and free pronouns have:

ABSOLUTIVE ERGATIVE DATIVE LOCATIVE
ALLATIVE ABLATIVE-1 ABLATIVE-2

Djaru also has pronominal clitics (or bound pronouns, as against free pronouns). They are generally suffixed to the catalyst morpheme *ɟa*. Bound pronouns crossreference (cf. Bloomfield 1935:193) nouns and/or free pronouns. Unlike nouns and free pronouns, bound pronouns have a nominative-accusative declension. That is, the nominative case marks St and Si, and the accusative case marks Ot. Thus, bound pronouns have the following cases:

Nominative Accusative Dative Locational⁴⁾

We shall refer to nouns and free pronouns (of the absolutive-ergative pattern) as nominals, as against bound pronouns (of the nominative-accusative pattern).

The correspondence between nominals and bound pronouns is roughly as follows:

case marking		case marking
of nominal		of bound pronoun
ERGATIVE	as St	} Nominative
ABSOLUTIVE	as Si	
ABSOLUTIVE	as Ot	Accusative
DATIVE (1, 2)		Dative
LOCATIVE	}	} Locational
ALLATIVE		
ABLATIVE (1, 2)		

On the basis of the above correspondence, the following grammatical relations can be set up for Djaru:

case marking	grammatical	case marking
of nominal	relation	of bound pronoun
ERGATIVE	} Subject	} Nominative
ABSOLUTIVE		
ABSOLUTIVE	Direct Object	Accusative
DATIVE (1, 2)	Indirect Object	Dative
LOCATIVE	} Subjunct	} Locational
ALLATIVE		
ABLATIVE (1, 2)		

Note that here we group ERGATIVE and ABSOLUTIVE together as subject in spite of their morphological discrepancy. This because the Djaru syntax is primarily in the nominative-accusative pattern. This will be shown in the following.

3 Syntactic type of Djaru

Most of the Djaru syntactic processes identify Si with St rather than with Ot. That is, the Djaru syntax is primarily in the nominative-accusative pattern (in spite of the absolutive-ergative marking of nominals). Two examples will be shown to justify this.

In reflexivization, the controller is always the nominative bound pronoun, which

marks St or Si. Thus, corresponding to:

- (1) *ḡaḡu-ḡgu ḡa-ḡa ḡaḡu buḡ-an
 1Sg-ERG CATALYST-1SgNom 1Sg-ABS hit-PRESENT *I hit me.

we have:

- (2) ḡaḡu-ḡgu ḡa-ḡa-ḡunu ḡaḡu buḡ-an
 C-1SgNom-REFLEXIVE I hit myself.

Similarly, corresponding to:

- (3) *ḡaḡu ḡa-ḡa ḡaniḡa maḡ-an
 1Sg-ABS C-1SgNom 1Sg-DAT talk-PRES *I talk about me.

we have:

- (4) ḡaḡu ḡa-ḡa-ḡunu ḡaniḡa maḡ-an
 C-1SgNom-REFL I talk about myself.

Another piece of evidence for the nominative-accusative nature of Djaru syntax comes from equi-NP deletion in a type of gerund constructions. (A grund is formed by the addition of -u to a verb root.) Corresponding to:

- (5) mawun-du ḡa-ḡ-ḡ jambagina ḡaḡ-an
 man-ERG C-3SgNom-3SgAcc child-ABS see-PRES A man sees a child.

- (6) jambagina ḡa-ḡ jaḡ-an
 child-ABS C-3SgNom walk-PRES A child walks.

we have:

- (7) mawun-du ḡa-ḡ-ḡ jambagina ḡaḡ-an jaḡ-u-ḡga
 man-ERG C-3SgNom-3SgAcc child-ABS see-PRES walk-GERUND-
 COMPLEMENTIZER

A man sees a child walking.

Similarly, corresponding to (5) and:

- (8) jambagina-lu ḡa-ḡ-ḡ ḡaba ḡaḡ-an
 child-ERG C-3SgNom-3SgAcc water-ABS drink-PRES

A child drinks water.

we have:

- (9) mawun-du ḡa-ḡ-ḡ jambagina ḡaḡ-an ḡaba-ḡga ḡaḡ-u-ḡga
 man-ERG C-3SgNom-3SgAcc child-ABS see-PRES water-COMP drink-
 GRND-COMP

A man sees a child drinking water.

In such gerund constructions, it is always the subject (whether St or Si) of the complement clauses that is deleted. Here, St and Si are treated alike.

The writer has found only one syntactic process in which Si and Ot are treated alike. This will be discussed in 4. 1.

4 Problems of relational grammar

It has been claimed that a certain hierarchy of grammatical relations (or relational hierarchy or noun phrase hierarchy) plays a central role in the syntax of natural languages.

Thus, Keenan and Comrie (1972) proposed a noun phrase accessibility hierarchy:

Subj \succ DO \succ IO \succ OPrep \succ Poss-NP \succ O-Comp-Particle

Johnson's hierarchy is (Johnson 1974a):

Subject \succ Direct Object \succ Indirect Object \succ Oblique NP \succ

Poss-NP \succ Obj.-Comp-Particle

Oblique NP's include instrumental, locative, benefactive and so on (Johnson 1977: 153-54).

According to Hale (1974), Postal and Perlmutter's hierarchy appears to be as follows:

Subject \succ Direct Object \succ Indirect Object \succ Benefactive, Locative,
Allative, Elative, Instrumental, etc.

In the following, we shall discuss three selected topics from Djaru syntax and examine the current models of RG against them.

4.1 Locative movement and target uniqueness principle

Consider:

(10) $\text{ya}\text{ɖu-}\text{ɣgu}$ $\text{ɣa-}\text{ɣa-}\phi$ mawun lagga-ga $\text{bu}\text{ɣ-an}$
1Sg-ERG C-1SgNom-3SgAcc man-ABS head-LOC hit-PRES
I hit a man on the head.

(11) $\text{ya}\text{ɖu-}\text{ɣgu}$ $\text{ɣa-}\text{ɣa-}\phi$ mawun lagga $\text{bu}\text{ɣ-an}$
1Sg-ERG C-1SgNom-3SgAcc man-ABS head-ABS hit-PRES
I hit a man's head.

Also, consider:

(12) $\text{ya}\text{ɖu}$ $\text{ɣa-}\text{ɣa}$ $\text{ma}\text{ŋa}\text{ɣ}$ $\text{nara-}\text{ɣga}$
1Sg-ABS C-1SgNom no good-ABS back-LOC

I feel no good in the back.

- (13) ɣaɟu ɣa-ŋa nara maŋaɲ
 1Sg-ABS C-1SgNom back-ABS no good-ABS

My back feels no good.

Within the framework of relational grammar, it would be most natural to regard (11) and (13) as derived from (10) and (12), respectively — by locative movement. (Otherwise, an obvious generalization — parallelism between (10)-(11) and (12)-(13) — will be lost.) That is, in (11) locative is advanced to DO and in (13) locative is advanced to Si. However, if we adopt this analysis, this will be an exception to THE TARGET UNIQUENESS PRINCIPLE (Johnson 1977:164):

No languages can have two advancement rules that have the same candidate relations but different target relations.

That is, we would have the same candidate relation (i.e. locative) and two target relations (i.e. subject and DO).

Incidentally, note that here Si and DO are the target. This is the only syntactic process the writer found in Djaru that treats Si and DO (or Ot) alike. That is, it is only in this 'locative movement' that Djaru syntax is in the absolutive-ergative pattern.

4.2 Semitransitive sentences, spontaneous demotion and advancement

Transitive verbs take the ERG-ABS frame. Thus:

- (14) mawun-du ɣa-φ-φ ɟaɟi lan-an
 man-ERG C-3SgNom-3SgAcc kangaroo spear-PRES

A man spears a kangaroo.

However, at least the three verbs of perception (i.e. ɣaɣ- 'see/look at', buɣa ɣaɣ- 'hear/listen to' and bad man- 'touch') can take the ERG-DAT as well as the ERG-ABS frame. Thus, compare:

- (15) mawun-du ɣa-φ-φ ɟaɟi ɣaɣ-an
 man-ERG C-3SgNom-3SgAcc roo-ABS see-PRES

A man sees a kangaroo.

- (16) mawun-du ɣa-φ-la ɟaɟi-wu ɣaɣ-an
 man-ERG C-3SgNom-3SgDat roo-DAT1 see-PRES

A man looks for a kangaroo.

As another pair of examples:

(17) mawun-du ɣa-φ-φ jambagina buɕa ɣaɣ-an
 man-ERG C-3SgNom-3SgAcc child-ABS hear-PRES
 A man hears a child.

(18) mawun-du ɣa-φ-la jambagina-wu buɕa ɣaɣ-an
 man-ERG C-3SgNom-3SgDat child-DAT1 hear-PRES
 A man tries to listen to a child.

The ERG-ABS frame marks actual actions, while on the other hand the ERG-DAT frame marks potential or attempted (but as yet unrealized) actions. We will refer to sentences such as (16) and (18) by semitransitive sentences (as against true transitive sentences, of the ERG-ABS frame).

In (15) ɕaɕi is DO, and in (16) ɕaɕi-wu is IO. Similarly, for (17) and (18). Within the framework of RG, it is most reasonable to regard (16) and (18) as derived from (15) and (17), respectively. (Again, otherwise an obvious generalization will be lost.) According to the current models of RG, there are two alternatives to explain this derivation: one is demotion and the other is advancement. However, in either alternative we encounter a problem and the current RG models will have to be modified.

DEMOTION. In this analysis, IO in (16) is regarded as derived from DO in (15) by demotion. However, note that this demotion from (15) to (16) is **NOT** accompanied by promotion. That is, this would be an instance of spontaneous demotion. However, spontaneous demotion is not generally accepted in RG. (See Comrie 1977. He attempts to show that spontaneous demotion must be allowed⁵⁾.) That is, within the current framework of RG, the derivation of (16) from (15) cannot be explained by demotion. Similarly, for (17) and (18).

ADVANCEMENT. We have rejected the demotion alternative. The other alternative is movement on the relational hierarchy in the opposite direction, i.e. advancement (a type of promotion). In this analysis, IO in (16) is regarded as derived by advancement. However, according to the generally accepted relational hierarchy, the movement from DO to IO can be only demotion; it can never be promotion. Unless the relational hierarchy is modified to accommodate $IO \gg DO$, the derivation of (16) from (15) cannot be explained by advancement. Similarly, for (17) and (18).

To summarize, in order to explain the derivation of (16) and (18), there are two alternatives: demotion and advancement (a type of promotion). To explain this

derivation by demotion, spontaneous demotion will have to be accepted. To explain this derivation by advancement, the generally accepted relational hierarchy will have to be modified to allow IO > DO. In either alternative, the current RG models will have to be modified.

4.3 Bound pronouns and relational hierarchy

As stated above, bound pronouns are generally suffixed to the catalyst morpheme *ga*. Now, as a rule there cannot be more than two bound pronouns within one sequence. That is, among the (two or more) nominal NPs in the sentence, only two can be crossreferenced by bound pronouns. Here, a certain hierarchy is operative in the selection of nominal NPs that will be crossreferenced by bound pronouns. On this hierarchy, the subject is the highest. The nominative bound pronoun (marking St or Si) outranks the accusative (marking DO), dative (marking IO) and locational (marking subjunct). In this respect the selection of nominal-NPs for crossreference fits in the relational hierarchy. However, the locational (marking subjunct) outranks the dative (marking IO).⁶⁾ Thus, we have:

- (19) *ga*ɟu *ga-ŋa-ggula* *jan-i* *ɲunugij-ɟa* *guɟara-wu* *ɟaɟi-wu*
 1Sg-ABS C-1SgNom-2SgLoc come-PAST 2Sg-LOC two-DAT1 roo-DAT1
 I came to you for two kangaroos.

but we cannot have *ga-ŋa-wulaanu* 'C-1SgNom-3DuDat' here. Similarly, we have:

- (20) *ga*ɟu-ggu *ga-ŋa-anuggula* *ɟaɾu* *maran-an* *ɲunuga*
 1Sg-ERG C-1SgNom-3PlLoc story-ABS tell-PRES 2Sg-DAT
 I tell them a story about you.

but we cannot have *ga-ŋa-ggu* 'C-1SgNom-2SgDat' here.

Now, our subjunct (marked by the locational bound pronoun; marked by the locative, allative or ablative nominal) corresponds to Johnson's and Postal and Perlmutter's Oblique NP (locative, allative, elative, etc.). In their hierarchies, IO is higher than Oblique NP. However, at least in Djaru, subjunct is higher than IO as regards the occurrence of bound pronouns. The currently accepted relational hierarchies will have to be modified to allow for the Djaru hierarchy (in which subjunct is higher than IO).

5 Final remarks

We discussed three points from Djaru syntax, and pointed out that the current

models of relational grammar are inadequate and need to be modified.

Perhaps it is a universal fact that there are certain grammatical relations in natural languages; that there is a certain hierarchy among the grammatical relations in each language; and that various syntactic processes hinge on this hierarchy.⁷⁾

However, as our discussion of points of Djaru syntax indicates, the current models of RG are not universally applicable. All of them are too strong hypotheses. They need to be weakened in order to accommodate facts from Djaru (and from other languages).

Universal grammar (RG is a type of universal grammar) seeks to give 'the precise characterization of the essential properties of human languages' (Johnson 1977:151). However, this may be too ambitious an attempt. It is probable that the reality is far more discouraging and pessimistic. Possibly the best we can do is merely to point out the recurrent tendencies among natural languages rather than to give a 'precise characterization' of them.

Footnotes

1) This paper was written in April 1978, while the writer was at Griffith University.

2) For a full description of the Djaru language, see Tsunoda, 1978. The Djaru phoneme inventory is:

/b, d, ɖ, ɗ, g; m, n, ŋ, ɲ, ɳ; l, ɭ, ʎ; r, ɾ; j, w; a, i, u/.

3) For details of relational grammar, see, for instance, Johnson 1974a, 1974b; Johnson 1977 and others in Cole and Sadock (eds.) 1977.

4) Case labels in capital letters throughout, e. g. ERGATIVE and ERG, refer to case marking of nominals. Case labels with the first letter only in a capital letter, e. g. Nominative and Nom, refer to case marking of bound pronouns.

5) Comrie (p. c.) has informed the writer that Keenan and Comrie 1972 (1977) is independent of relational grammar.

6) This does not apply to the accusative (marking DO). The relative rank between the accusative and locational has not been worked out yet. It appears that the relative rank of the accusative and dative involves the semantic natures of the nominal NPs rather than the grammatical relations of the nominal NPs.

7) For example, see Tsunoda 1977 for a discussion of a noun phrase hierarchy in Japanese.

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