

Preliminary Remarks on the Grammar of Part-Whole Relations in

Warlpiri

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1. The favorite pattern.

- (1) Maliki kalaka-*npa* kati-*rni* ngirnti nyuntulu-*rlu*.
(dog AUX:ADMON-2s tread-NPAST tail you-ERG)
'You (singular) are liable to step on the dog's tail.'
- (2) Kurdu-*ngku* ka-*ju* rdaka-*ngku* paka-*rni* ngaju.
(child-ERG AUX:PRES-1o hand-ERG strike me)
'The child struck me with its hand.'
- (3) Rdaka ka-*rna* yuka-*mi* ngulya-*kurra* ngaju.
(hand AUX:PRES-1s enter-NPAST burrow-ALL I)
'I am sticking my hand into the (goanna's) burrow.'
- (4) Ngaju 0-*rna-rla* rdaka maliki-*ki* yarnka-*ja* ngirnti-*ki*.
(I AUX:PERF-1s-rla hand dog-DAT seize-PAST tail-DAT)
'I grabbed the dog by the tail with my hand.'
- (5) Nama ka langa-*kurra* yuka-*mi* kurdu-*kurra*.
(ant AUX:PRES ear-ALL enter-NPAST child-ALL)
'The ant is crawling into the child's ear.'

2. Preliminary observations.

The PART and WHOLE terms in the favorite mode of expression do not form a syntactic constituent. Moreover, it is the WHOLE term, not the PART term, which is syntactically 'active' -- i.e., construes with person markers in AUX and functions as controller

of an infinitival expression. Consider, for example, the following:

- (6) Maliki-patu 0-rna-jana jaka luwa-rnu pirlingki
warlkurrma-ninja-kurra.

(dog-plural AUX:PERF-1o-333o buttocks hit-PAST
stone-INST bark-INF-COMP:OBJ)

'I pelted the dogs in the buttocks, with stones,
while they were barking.'

In both of these respects, the Part-Whole relation is to be distinguished sharply from the (alienable) possessive construction, rarely used for the Part-Whole relation, in which the entity possessed is syntactically active, the possessor being syntactically inert. For example:

- (7) Maliki nyuntu-nyangu 0-rna luwa-rnu pirli-ngki
warlkurrma-ninja-kurra.

(dog you-POSS AUX:PERF-1s hit-PAST stone-INST
bark-INF-COMP:OBJ)

'I pelted your dog with a stone while it was
barking.'

And as expected, it is the WHOLE term which functions as the (necessarily non-overt) controlled subject within an infinitive clause:

- (8) Nyuntu ka-rna-ngku nya-nyi lirra wantiki-jarri-nja-
kurra.

(you AUX:PRES-1s-2o see-NPAST mouth wide-INCH-INF-
COMP:OBJ)

'I see you opening your mouth (wide).'

The grammatical characteristics illustrated by (1-5, 6, 8)

extend to all relationships conventionally seen as involving a whole and component part -- e.g., plants and their parts (wapurnungku 'ghost gum' and wurdamirri 'bark'); implements and their parts (karli 'boomerang' and warda 'handle (end)'); an entity and its name (yirdi 'name'), or sound (linpa 'sound', jaru, yimi 'speech, sound, language'); an entity and its physical manifestation (palka 'body, physical form, presense'); an entity and its shadow (yama 'shade, shadow'); a part and its parts (rdaka 'hand' and purturlu 'back'); a body and certain excretions, when not fully removed from the body (minngarli 'tear', kurnpu 'nectar, sap'); and others.

3. An introduction to Warlpiri grammar.

I will, for the purposes of this discussion, assume the following phrase structure rules:

$$(9) \quad S \longrightarrow \text{AUX } \bar{X}^* \text{ V } \bar{X}^*$$

$$(10) \quad \bar{X} \longrightarrow \bar{X}^* \text{ X}$$

As a function of lexical insertion, the sentence will exhibit so-called 'free word order,' while subsentential phrases will be nucleus final. The auxiliary (AUX) will be positioned in surface structure by means of local movement rules in the phonological component.

Each lexical item consists of a dictionary entry, giving the meaning of the item, and a functional structure, derived from the dictionary entry by rules of varying generality. The functional structure defines the argument structure of the item and encodes the grammatical relations borne by the arguments. Each

'argument position' in functional structure is supplied with a 'linking register' indicating how that position is to be related to other constituents of the clause (in form, the linking registers are simply case labels). A sample verbal lexical item is given below:

(11)

panti-rni

(xERG, yABS)V

functional structure

{

 xERG produces inden-

 tation or puncture in

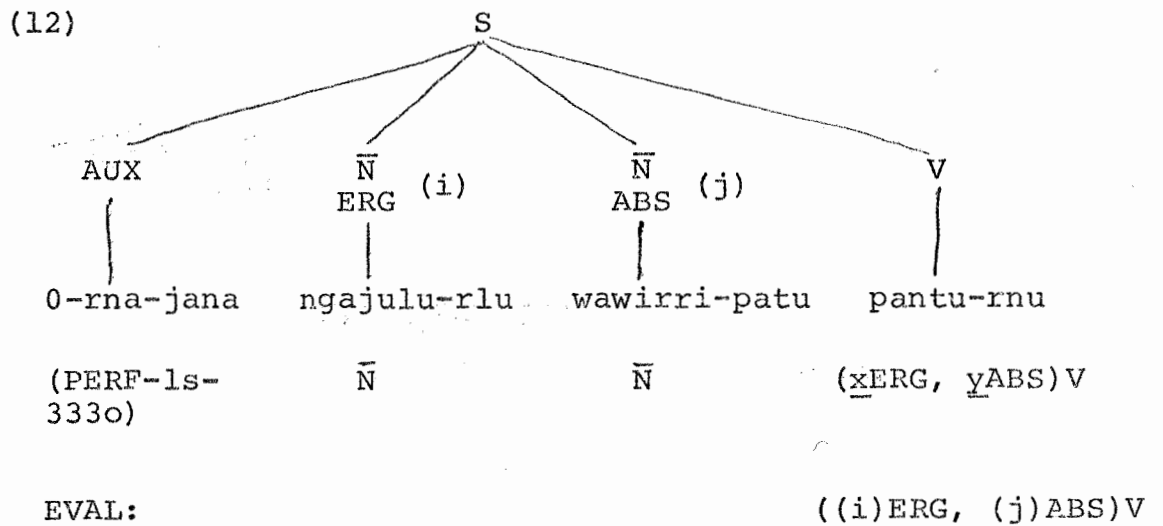
 surface of yABS, by point

 coming into contact with y
 }

 dictionary entry

Although they are important in many ways, I will not make use of the dictionary entries here. Accordingly, only the functional structure will be referred to in discussing examples.

Nominal items may function either as predicates, or arguments. When they function as predicates, they are supplied with an argument structure, similar to that of a verb; when they function as arguments, they are supplied with 'evaluation indices' (parenthetic letters). These are utilized to notate the 'evaluation' of argument positions in predicate functional structures. In particular, the argument positions are evaluated (arbitrarily at first) by inserting evaluation indices in place of the variable symbols (x, y, z, ...). An evaluation is sanctioned if the linking register corresponds to the case of the evaluating nominal. The following sentence will serve to illustrate this:



- (12') Ngajulu-rlu 0-rna-jana wawirri-patu pantu-rnu.
(I-ERG AUX:PERF-1s-333o kangaroo-PL spear-PAST)
'I speared the/a kangaroo.'

This sentence also serves to illustrate 'construal', or person-number agreement, between the auxiliary and the predicator (verb in this case) sister to it. Construal consists in copying the person-number features of the subject and object markers into the subject and object argument positions in the predicate functional structure. The fully evaluated and construed verb of (12) above will appear (roughly) as follows:

- (12") ((i)1ERG, (j)333ABS)V

The following sentence is ambiguous, its readings being roughly equivalent to those of the two English translations:

- (13) Ngajulu-rlu 0-rna-jana wawirri-patu pantu-rnu wiri-patu.
(I-ERG PERF-1s-333o kangaroo-PL spear-PAST big-PL)
'I speared the big kangaroos.'
'I speared the kangaroos, and they were big.'

The first reading I will call the 'merged' reading; the second

will be called the [^] 'predication' reading. In the following, in which the string wawirri wiri-patu 'big kangaroos' is a syntactic constituent, a noun phrase, only the merged reading is possible:

(14) Wawirri wiri-patu 0-rna-jana pantu-rnu.

(kangaroo big-PL PERF-1s-3330 spear-PAST)

'I speared the big kangaroos.'

I will assume that there is, in the semantic form component of the grammar, a rule which merges ^{nominal expressions} separate, identical in case and number, into a single semantic expression. Applied to (13), this rule would apply to give the merged reading -- i.e., the reading corresponding to the sole reading of (14).

By contrast, I will assume that the predication reading is obtained by evaluating the subject argument position, so to speak, with the index which, in the verbal functional structure, corresponds to the case of the nominal. Thus, for example, the nominal expression wiri-patu (big-PL) in (13), on the second reading, will be a predicate whose subject is evaluated by the direct object -- hence the index (j):

(15) (j)N

Note, incidentally, that the ^{sub} subject in (14) is not overt.

This is the regular way of obtaining the effect of pronominalization. In such cases, I will assume, the corresponding argument position in functional structure is evaluated arbitrarily -- i.e., by the evaluation procedure already announced.

I will not be discussing control here, so it will suffice to say that control and predication are closely similar processes.

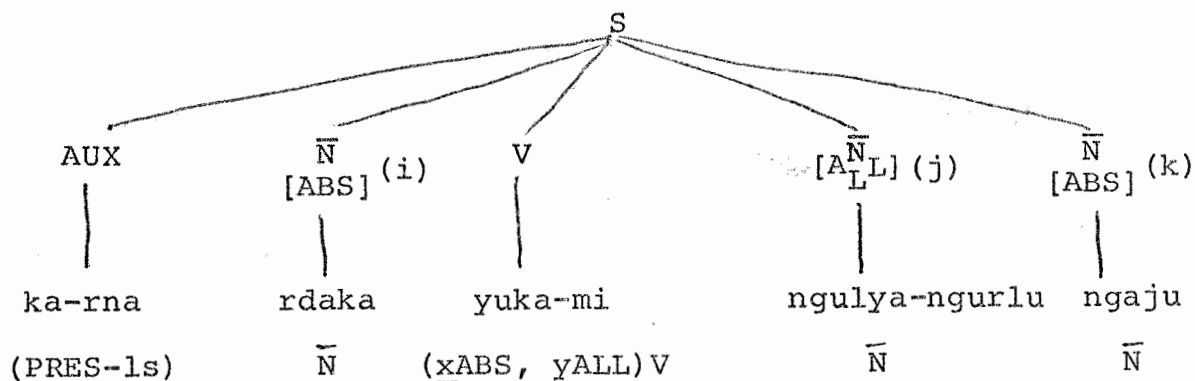
4. The integration of Part-Whole relations into the grammar.

I will assume that the relation between a PART and a WHOLE is one of predication, in the favorite pattern -- the PART is predicated of the WHOLE; the latter functions as an argument, while the former is predicated of it.

However, there is a basic, two-faceted, intuition which I would like to capture -- namely this: The PART is identified with the WHOLE, in the sense that what is true of the part is seen to be true of the WHOLE; but, at the same time, the PART is conceptually, and grammatically, distinct from the WHOLE, in that it can be alienated therefrom, and it can be independently qualified (by a modifying nominal, such as wiri 'big', narntirnpari 'curled', and the like).

In light of the above, I will take the position that a PART term nominal is, in the favorite pattern exemplified at (1-5), basically an argument type expression -- a 'name' -- and therefore is supplied with an evaluation index (rather than a 'subject' argument position). Like any name, however, a PART name can itself function as a predicate. This will be accommodated by means of a rule of 'predicate formation', which applies generally to definite expressions. The following sentence, and derivation, will serve to illustrate these remarks:

(16) (cf. (3) above):



EVAL (& CONSTR): ((k)ABS, (j)ALL)V

PRED Formation: (k) (N̄ [ABS] (i))

The predicate formed from the PART nominal expression is predicated of the subject argument in the verbal functional structure. This relates the PART and the WHOLE, but it does not yet express the nature of that relationship. I propose the following rule of interpretation for the Part-Whole relation, wherever it is expressed in the favorite pattern:

(17) PWI (Part-Whole Interpretation):

The relevant part of (Q)CASE is (i), where (i) is the PART nominal expression predicated of (Q)CASE.

In (16) above, PWI would state the following:

(18) PWI: Relevant part of (k)ABS is (i).

That is to say, the part of the entity denoted by the subject of sentence (16) which actually enters the borrow is the hand of that entity (or forepaw, where the entity is a quadruped).

Additional derivations are given in the following paragraphs.

(19) Minngarli ka-rna karli milpa-ngurlu.

(tears PRES-1s flow-NPAST eye-EL)

'Tears are flowing out of my eyes.'

FS: $\bar{N}/ABS(i)$ AUX ((k)1ABS, (k)EL)V $\bar{N}/EL(j)$

PF: (k) ($\bar{N}/ABS(i)$), (k) ($\bar{N}/EL(j)$)

PW: The relevant part of (k)1ABS is (i), and of (k)EL, (j).

(20) Walu-ku 0-rna-ju rdaka yarnka-ja ngaju.

(head-DAT PERF-1s-lo hand grab-PAST I)

'I grabbed my head with my hands.'

FS: $\bar{N}/DAT(i)$ AUX $\bar{N}/ABS(j)$ ((k)1ABS, (k)1DAT)V
 $\bar{N}/ABS(k)$

REFL: subject = object

PF: (k) ($\bar{N}/DAT(i)$),) (k) ($\bar{N}/ABS(j)$)

PW: The relevant part of (k)1ABS is (j), and of (k)1DAT, (i).

(21) Pirli 0-ji yaarl-wanti-ja rdaka-ku.

(stone PERF-lo onto-fall-PAST hand-DAT)

'The stone fell onto my hand.'

FS: $\bar{N}/ABS(i)$ AUX ((i)3ABS, (k)1DAT)V $\bar{N}/DAT(j)$

PF: (k) ($\bar{N}/DAT(j)$)

PW: The relevant part of (k)1DAT is (j).

- (22) Jiri-ngki 0 wirliya-jarra pantu-rnu kurdu wita.
 (thorn-ERG PERF foot-DUAL pierce-PAST child small)
 'The thorn(s) stuck the two feet of the small child.'
 $\bar{N}/\text{ERG}(i)$ AUX $\bar{N}/\text{DUAL}/\text{ABS}(j)$ ((i)3ERG, (k)3ABS)V
 $\bar{N}/\text{ABS}(k)$
 PF: (k) ($\bar{N}/\text{DUAL}/\text{ABS}(j)$)
 PW: The relevant part of (k)3ABS is (j).

The foregoing examples all illustrate the Part-Whole relation in which the PART term bears a direct (rather than oblique) grammatical relation in the functional structure of the verb. As (19) shows, however, the PART term may also bear an oblique relation. There are two patterns employed in this case -- one corresponding precisely to the favorite pattern so far illustrated, in which the WHOLE and the PART are identically marked for case, and another in which the WHOLE term appears in the dative case, while the PART is in the oblique case. The ability of a verbal functional structure to take an 'adjunct' dative (having a variety of functions) is absolutely general in Warlpiri, and I will assume that the dative argument appearing in the second pattern just mentioned is introduced by the general rule -- formulated, very approximately, as (23) below:

- (23) DI (Dative Insertion)
 $(\underline{x}\text{CASE}, \dots)V \leftrightarrow (\underline{x}\text{CASE}, \underline{y}\text{DAT}, \dots)V$

Examples of both patterns follow forthwith.

(24) (cf. (5) above) Nama ka langa-kurra yuka-mi
kurdu-kurra.

(ant PRES ear-ALL enter-NPAST child-ALL)

'The ant is crawling into the child's ear.'

FS: $\bar{N}/ABS(i)$ AUX $\bar{N}/ALL(j)$ ((i)3ABS, (k)ALL)V
 $\bar{N}/ALL(k)$

PF: (k) ($\bar{N}/ALL(j)$)

PW: The relevant part of (k)ALL is (j).

(24') Nama ka-rla langa-kurra yuka-mi kurdu-ku.

(ant PRES-rla ear-ALL enter-NPAST child-DAT)

'The ant is crawling into the child's ear.'

(DT has applied to the verb)

FS: $\bar{N}/ABS(i)$ AUX $\bar{N}/ALL(j)$ ((i)3ABS, (k)3DAT,
(k)ALL)V $\bar{N}/DAT(k)$

PF: (k) ($\bar{N}/ALL(j)$)

PW: The relevant part of (k)ALL is (j).

(25) Kurdungurlu-rlu ka-lu wamulu yirra-rni kirda-ngka
rdukurduku-rla.

(kurdungurlu-ERG PRES-333s fluff put-NPAST kirda-LOC
chest-LOC)

'(Members of the) kurdungurlu (patrimoiety) put
decorative fluff on the chests of (members of the)
kirda (patrimoiety).'

FS: $\bar{N}/ERG(i)$ AUX $\bar{N}/ABS(j)$ ((i)333ERG, (j)3ABS,
(k)LOC)V $\bar{N}/LOC(k)$ $\bar{N}/LOC(l)$

PF: (k) ($\bar{N}/LOC(l)$)

PW: The relevant part of (k)LOC is (l).

(24) (cf. (5) above) Nama ka langa-kurra yuka-mi
kurdu-kurra.

(ant PRES ear-ALL enter-NPAST child-ALL)

'The ant is crawling into the child's ear.'

FS: $\bar{N}/ABS(i)$ AUX $\bar{N}/ALL(j)$ ((i)3ABS, (k)ALL)V
 $\bar{N}/ALL(k)$

PF: (k) ($\bar{N}/ALL(j)$)

PW: The relevant part of (k)ALL is (j).

(24') Nama ka-rla langa-kurra yuka-mi kurdu-ku.

(ant PRES-rla ear-ALL enter-NPAST child-DAT)

'The ant is crawling into the child's ear.'

(DT has applied to the verb)

FS: $\bar{N}/ABS(i)$ AUX $\bar{N}/ALL(j)$ ((i)3ABS, (k)3DAT,
(k)ALL)V $\bar{N}/DAT(k)$

PF: (k) ($\bar{N}/ALL(j)$)

PW: The relevant part of (k)ALL is (j).

(25) Kurdungurlu-rlu ka-lu wamulu yirra-rni kirda-ngka
rdukurduku-rla.

(kurdungurlu-ERG PRES-333s fluff put-NPAST kirda-LOC
chest-LOC)

'(Members of the) kurdungurlu (patrimoiety) put
decorative fluff on the chests of (members of the)
kirda (patrimoiety).'

FS: $\bar{N}/ERG(i)$ AUX $\bar{N}/ABS(j)$ ((i)333ERG, (j)3ABS,
(k)LOC)V $\bar{N}/LOC(k)$ $\bar{N}/LOC(l)$

PF: (k) ($\bar{N}/LOC(l)$)

PW: The relevant part of (k)LOC is (l).

(25') Kurdungurlu-rlu ka-lu-jana wamulu yirra-rni
kirda-ku rdukurduku-rla.

(kurdungurlu-ERG PRES-333s-333o fluff put-NPAST
kirda-DAT chest-LOC)

(Meaning same as (25); DT has applied)

FS: \bar{N} /ERG(i) AUX \bar{N} /ABS(j) ((i)333ERG, (k)333DAT,
(j)ABS, (k)LOC)V \bar{N} /DAT(k) \bar{N} /LOC(l)

PF: (k) (\bar{N} /LOC(l))

PW: The relevant part of (k)DAT(=(k)LOC) is (l).

5. Quiz.

The reader is invited to apply the Dative Rule to sentence (19) above, and then run the result through evaluation, etc. The task is to detect the problem that sentences of that type present.

6. Other issues.

6.1. Modification (Maliki-ki 0-rna-rla ngirnti-ki yarnka-ja narntirnpa-ki. 'I grabbed the dog by its curly tail.').

Anaphoric islands. Predication versus merger.

6.2. The PART/LOC and PART/EL patterns