Vrpluss as a VSE Language

Jane Simpson
General Examination
M.I.T.
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I would also like to thank Jim Harris, Alec Karentz, Haj Ross and David Nash for reading and commenting on parts of this paper, and I would also like to thank members of the Syntax Workshop, MIT, 1972 who heard and commented on an earlier version of this paper.

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1.1 Introduction

Ngarluma is a language that used to be spoken around Koebeurne in Western Australia. It is a Pama-Nyungan language of the Ngayarda subgroup, and is closely related to Yindjibarndi, and more distantly related to Warlpiri.

This paper uses material from Hale's field-notes and from the O'Grady, Voegelin and Voegelin paper in part based on those field notes, and on a collection of Ngarluma texts made by von Brandenstein, which together provide a great wealth of information about Ngarluma. The reader is warned, however, that when I say "such and such is not in the data" it is possible that I may have overlooked it in searching through the data.

In this paper I shall try to describe Ngarluma in terms of the * framework developed by Hale for Warlpiri. The first section lays out certain facts about Ngarluma, the case system and the word order. The second section lays out the rules needed to interpret a Ngarluma sentence. The third section elaborates on this in describing in detail the functions of case in Ngarluma.

I have made reference to Nordick's grammar of Yindjibarndi where such reference is helpful in understanding how Ngarluma might work.
1.1.1 Abbreviations and symbols

a. Sources

HALE: page number of field-notes in parentheses
von BRANDENSTEIN: text number/sentence number in parentheses
VORDICK: page number (my pagination of his unpaginated manuscript) in parentheses

b. Orthography

I have kept Vordick's orthography intact. I have written both Halle's and von Brandenstein's material in an orthography based on the Warlpiri orthography. (However, I have also used Halle's transcription to rewrite von Brandenstein's material. If a word in von Brandenstein's texts is not found in Halle's material, I have put it in inverted commas and kept von Brandenstein's transcription.)

<table>
<thead>
<tr>
<th>bilabial</th>
<th>interdental</th>
<th>alveolar</th>
<th>retroflex</th>
<th>palatal</th>
<th>velar</th>
</tr>
</thead>
<tbody>
<tr>
<td>stop</td>
<td>p</td>
<td>th</td>
<td>t</td>
<td>rt</td>
<td>j</td>
</tr>
<tr>
<td>nasal</td>
<td>n</td>
<td>mh</td>
<td>n</td>
<td>rn</td>
<td>ny</td>
</tr>
<tr>
<td>lateral</td>
<td>l</td>
<td>rr</td>
<td>l</td>
<td>rl</td>
<td>ly</td>
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<tr>
<td>rhotic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>semivowel</td>
<td>w</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\[i\ u\quad (length\ indicated\ by\ doubling\ vowel)\]
\[a\]

c. Morphological conventions

+ indicates inherent feature
- indicates morpheme boundary

<table>
<thead>
<tr>
<th>Person</th>
<th>1 2 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>INCL:</td>
<td>Inclusive pronoun</td>
</tr>
<tr>
<td>EXCL:</td>
<td>Exclusive pronoun</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number</th>
<th>DU: Dual</th>
</tr>
</thead>
<tbody>
<tr>
<td>PL(UN): Plural</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Case:</th>
<th>NOM: Nominative</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACQ:</td>
<td>Accusative</td>
</tr>
<tr>
<td>LOC:</td>
<td>Locative</td>
</tr>
<tr>
<td>ABL:</td>
<td>Ablative</td>
</tr>
<tr>
<td>ALL:</td>
<td>Allative</td>
</tr>
<tr>
<td>CAUS:</td>
<td>Causative</td>
</tr>
<tr>
<td>INSTR:</td>
<td>Instrumental</td>
</tr>
<tr>
<td>HAVING:</td>
<td>Having</td>
</tr>
<tr>
<td>PRIV:</td>
<td>Privative</td>
</tr>
</tbody>
</table>
### Derivational Affixes

<table>
<thead>
<tr>
<th>PASS:</th>
<th>Passive</th>
</tr>
</thead>
<tbody>
<tr>
<td>TVbl:</td>
<td>Transitive verbalizer</td>
</tr>
<tr>
<td>I(at)Vbl:</td>
<td>Intransitive verbalizer</td>
</tr>
<tr>
<td>become:</td>
<td>Inchoative verbalizer</td>
</tr>
<tr>
<td>TOOL:</td>
<td>Nominalizer</td>
</tr>
</tbody>
</table>

### Verb inflections:

Verbs are divided into 3 conjugations, with a possible fourth, on the basis of their inflections. The first two conjugations are also divided on transitivity: the ∅ conjugation is basically intransitives, and the N conjugation is basically transitive, although there are some transitives in the ∅ conjugation.

<table>
<thead>
<tr>
<th>CONT. 1</th>
<th>CONT. 2</th>
<th>CONT. 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>∅</td>
<td>N</td>
<td>M</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRES:</th>
<th>PASS:</th>
<th>ku</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAST:</td>
<td>PAST:</td>
<td>nha</td>
</tr>
<tr>
<td>FUT:</td>
<td>FUTURE:</td>
<td>ru</td>
</tr>
<tr>
<td>SUB:</td>
<td>SUBSEQUENT:</td>
<td>ru</td>
</tr>
<tr>
<td>CONT:</td>
<td>CONTEMPORANEOUS:</td>
<td>ru</td>
</tr>
<tr>
<td>IMP(ER):</td>
<td>IMPERATIVE:</td>
<td>ru</td>
</tr>
<tr>
<td>ACT(PART):</td>
<td>ACTIVE:</td>
<td>ru</td>
</tr>
<tr>
<td>PASS(PART):</td>
<td>PASSIVE:</td>
<td>ru</td>
</tr>
<tr>
<td>LHST:</td>
<td>LHST:</td>
<td>ru</td>
</tr>
<tr>
<td>HABIT:</td>
<td>HABIT:</td>
<td>ru</td>
</tr>
<tr>
<td>ERK:</td>
<td>ERK:</td>
<td>ru</td>
</tr>
</tbody>
</table>

( ? indicates that the form is predicted)

It is not clear to me whether wantharr "to put" forms a separate conjugation, or whether its irregularities are due to Yindjibarndi influence.

### Clitics:

<table>
<thead>
<tr>
<th>CLIT</th>
<th>Clitic</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>TIME(CLIT)</td>
<td>Clitic /-1yi/</td>
<td>indicating time</td>
</tr>
<tr>
<td>REL</td>
<td>Clitic /-pa/</td>
<td>indicates TOPIC (or, as CVB says, a kind of Relative Clause)</td>
</tr>
<tr>
<td>COND</td>
<td>Clitic /-the/</td>
<td>indicates conditional</td>
</tr>
</tbody>
</table>

The Yindjibarndi abbreviations are either identical to the Ngarluwa forms, or transparent, with the exception of OBJ (Objective) which corresponds to Ngarluwa Accusative.
1.2 Case

Ngarluma is a NOMINATIVE-ACCUSATIVE language.

I divide the cases into two types: grammatical which include NOMINATIVE, ACCUSATIVE and LOCATIVE, and semantic which include LOCATIVE, ALLATIVE, ABLATIVE, POSSESSIVE, CAUSAL, INSTRUMENTAL, and perhaps also HAVING and PRIVATIVE.

Below I give examples of different grammatical cases and semantic cases. ∪ represents CASE suffix allomorphy.

I have not listed the special allomorphs for pronouns and proper names., For a fuller account of allomorphy, see O’Grady, Voegelin and Voegelin. In some instances I have grouped several suffixes under one CASE, such as ALLATIVE. For these suffixes I have failed to discover either allomorphy conditioning environments or specific differences in meaning. These suffixes are separated by commas.

1.2.1. Uses of Cases

NOMINATIVE: Subject of intransitive sentence
Subject of nominal sentence
Subject of transitive sentence
Subject of ditransitive sentence
Subject of Passive
Duration of time

Subject of intransitive sentence

(32) ngali puntha-yi
l+DU+INCL swim-FUT
NOMINATIVE

Let's swim!
Subject of a nominal sentence

(238) ngayi mirrka parmaapangu
    I     big      he+ACC
    NOMINATIVE
    I am bigger than he(is)

Subject of Transitive sentence

(59) yukurru thartaji-rna kuju-yi
doG  bury-PAST bone-ACC
    NOMINATIVE

The dog buried a bone.

Subject of ditransitive sentence

(113) ngayi ngurna yungku-ru murla-yi
    I    that-ACC give-FUT meat-ACC
    NOMINATIVE

I'll give him meat

Subject of Passive sentence

(55) papa karlpa-ngali-yi manga-ngka ngajutharntu-rla
water carry-PASSIVE-FUT wife-LOC I-POSSESS-LOC
    NOMINATIVE

Water will be brought by my wife

Duration of Time

(180) ngayi parni-yi ngurla kutharra yarnta
    I  sit-FUT here+LOC two day
    NOMINATIVE

I'll stay here two days
**Direct Object**

7 (4b3) ngayi nyinku nhaku-ru pirri-ngka
I+XOM you+ACC see-FUT afternoon-LOC

I'll see you in the afternoon

**Indirect Object**

8 (110) thampurla ngaju thaya-rna mirlimirlili-ku
Thampurla I+ACC send-PAST letter-ACC

Thampurla sent me a letter

"Ethical Native"

9 (20) ngaju wanja nyurntiwarni-nha thunthu-ka
I+ACC dog die-PAST night-LOC

My dog died last night (=the dog died on me last night)

**Benefactive**

10 (5b) ngayi yarmima-ru wirrpa-yi nyinku
I+XON make-FUT boomerang-ACC you+ACC

I make you a boomerang
He went to cut a stick for a spearhead

What is being made by you?

He hit me with a stick

The kangaroo was speared by me with a spear

The fat melts in the fire
I came in the late evening

I'm going with that poor fellow

I'm going to camp

I want to go to a cold place

He ran that way towards the sea

I'll go to Roebourne tomorrow
Motion towards a Person

22 (110) Ngayi karlinjarri-yi parrarurru-ngu-tharta thunthu-ka-lyi
I+ROM return-FUT Parrararru-ACC-ALL night-LOC-TIMECLIT

I'll return to Parrararru tomorrow.

Parrararru, a person's name, seems to demand the attachment of the ACCUSATIVE before the ALLATIVE, and the ACCUSATIVE, as is common for Proper Names, is a special form */-ngu/.

The forms of the ALLATIVE, as I said before, are not fully understood.

ABLATIVE Motion away from a Person or Place
-LOCAT. + nguru
-nguru

Metaphorical motion

Motion from a Place

23 (52) yinti-ma yawarta-la-nguru
descend-IMPER horse-LOC-ABL

Get off the horse

Motion from a Person

24 (106) wanja murtuyangka-ku waya nhula-nguru ngathala-nguru
dog+ NOM run-PAST fear this+ LOC-ABL I+ LOC-ABL ABLATIVE

The dog ran from me in fright.

Metaphorical Motion

25 (39) karlpa-ma pampa-nguru
rise-IMPER sleep-ABL ABLATIVE

Wake up!

Only in these metaphorical motion sentences does it seem possible to have the plain */-nguru/ without the preceding LOCATIVE. The same is true of Y.

1. In Y, there are two ALLATIVE type suffixes, */-kari/ and */-purraa/ which Fordick calls "direct" and "indirect". But I am not sure whether such a difference could be ascribed to the Ng suffixes.
Possessive

26 (55) papa karlpa-ngali-yi manga-ngka ngaju-tharntu-rla water carry-PASS-FUT wife-LOC I+ACC-POSSESS-LOC

Water will be brought by my wife

Benefactive

27 (102) ngayi japurrma-iku wangka-yi nyinku-tharntu-ku I+ACC hold-PRES talk-ACC you+ACC-POSSESS-ACC

I have news for you

It is possible that this use should not be distinguished from the previous use, especially since the Ethicalative use of the ACCUSATIVE covers this. In Y. Vordick (p.122) asserts that the Possessive form (e.g. nyinku-tharntu "yours") can have a Benefactive use.

Causal

28 (310) jampa-pa ngunthal pungka-yi-pa yintiri-kapu almost-CLIT that one+NOM fall-PASS-CLIT drunken-CAUS

That one will almost fall over from being drunk.

Instrumental

29 (48) ngunhu ngaju kulhanga-rna marnta-wari that+NOM I+ACC hit-PAST stone-INST

That one hit me with a stone

-wari is used almost entirely in Active sentences; in Passive sentences the preferred form for the Instrument is the LOCATIVE.

Y has exactly the same preference; in Passive sentences only LOCATIVE or /-wari+LOC/ are used. (p.126). See
/-vari/ is also used for attributing some quality or possession to a person—in this use it is hard to distinguish it from the HAVING suffix /-karlira/.

HAVING

Having some attribute, possession etc

Comitative

-wari,

-karlira

30

(7/1)

ngangka pipi-yapa-rri-yi mangkurla-karlira,...

woman+NOM milk-less-IV bl-PUT child-HAVING

need

If a woman with a child is milkless....

31

(48/1)

"Jyrli-kangu" palali-yi waka-nha "yurri-yi"

White crane+NOM once-TME GLT go-PAST fish-ACC

thakurra-karlira

net-HAVING

The white crane once went out fishing with a net

32

(58/5)

ngangka-pura milpa-patharn japaja-wari

women-PLUR come-HABIT veg.food-HAVING

The women used to come back with vegetable food.

33

(21)

ngayi ngantu-karlira

I+NON catarrh-HAVING

I have a cold

Comitative

34

(53/6)

karlinjarri-nha kurntal-pura-wari ... .

return-PAST daughter-PLUR-HAVING

(He) returned with his daughters

35

(39/12)

waka-nha ngaju-karlira jarta-nha...

gon-PAST I+ACC HAVING old woman+ROM

The old woman went with me...
nyinta papa-yapa  
you+NON  water-PREV

Are you thirsty?

parlparr yungu-jun mirta walyka  
sky  rain-PREV  not bad

The sky is clear (cloudless, excellent)

The difference between /-yapa/ and /-jun/ may be that the former implies a need of the missing thing - water here, milk in 30, whereas the latter just expresses its absence.

Both the HAVING and the PRIVATIVE suffixes might be better called Derivational affixes, than case-endings. However, there are no watertight tests to show which is which. Derivational affixes can follow PRIVATIVE, as in 30, and HAVING, as in:

jurlu nyurnti-karlika-rrri-nha palakarni wakurra  
allNON dead-HAVING-IntVbl -PAST like that crow

all were with a carcass, the crows

But derivational affixes can also follow LOCATIVE marked nouns:

mirriny-ta-ka-rna aganarna  
hot ash-LOC-TVbl -PAST 1+PLUR+EXCL

we put (it) in the hot ashes (we hot-ashed it)

So, being followed by a derivational affix does not divide Derivational from Inflectional affixes. PRIVATIVE and HAVING can be followed by other case-markings - but so can LOCATIVE:

being without some attribute or thing

-yapa,
-jun
ngayi nyinku thanku-ru kurrjarta-jun-ku
I+ NOM you+ ACC hit-PST spear- PRIV- ACC
I’ll hit/ kill you you spearless one

pulu nhaku- nha ngaju warlparra- wari- ku
he+ NOM see- PAST I+ ACC speartbrower- HAVING- ACC
He saw me with a speartbrower

wanji-Ia- ku nyinta marrparra- nha
where- LOC- ACC you+ NOM find- PAST
Where did you find (it)?

So, the ability to be followed by another case does not
distinguish PRIVATIVE and HAVING from other inflections.

The final test is Agreement. In Ngarlumna, (although there are a
few exceptions), every nominal is marked for CASE, and all parts
of a nominal expression bear the same CASE. Therefore if PRIVATIVE
and HAVING are CASES, we should see Agreement between separate
parts of one nominal expression marked for PRIVATIVE or HAVING.

This is certainly true for / -wari/:

tharrkurl- wari nyupa- wari
correct- HAVING wife- HAVING
(He has) the correct spouse (he has married in
accordance with his kinship system)

There are no examples in the data of PRIVATIVE and / -karlira/
spreading, but there are equally no examples where they fail
to spread, and so it is an open question as to whether they are
CASES or derivational affixes.

1 This is in contrast to Y, where lack of agreement is common;
(p.287) "...ideally all the nominal and pronominal constituents in a
phrase are marked in parallel by the relevant case marker. However, in actual situations one can observe that often only
a single item is so marked, the rest appearing in the
nomative case."

1.3 Word-order

Word-order in Nyarluma is remarkably free. Verbs, Subjects, Objects and Indirect Objects may occur in any order (not all orders are attested, but this can be attributed to the fact that we do not have much data). As for complex nominal expressions, nominals which are semantically determiners, numerals, possessors, quantifiers and adjectives may appear in any part of the sentence, separated from their heads. Adverbial adjuncts do have preferred locations, but they can appear in other places.

Nominal controlled participles and complements apparently cannot be discontinuous, but participles and complements controlled by other CASES may be split. I shall first give examples of word-order freedom, then show discontinuous expressions, and then discuss preferred word-orders:

1.3.1 Free Word-order in Sentences

S V O

(9) palu panyi-rna ngaju mirntiri-lu he+NOM step-PAST I+ACC fingernail-ACC
    S       V       O

He stepped on my fingernail

S O V

(23) ngunku warlu ngaju waya-ka-rna that+NOM snake+NOM I+ACC fear-TVbl-PAST
    S        O       V

That snake frightened me

1 In Y. the sentence "ngayi wauu nyinku" I see, you
may occur in any of its permutations (p.291) Order with an
as added "indirect object" is similarly free.
46 (17) Ngaju varli* pilya-rna
I+ACC snake+NOM bite-PAST

The snake bit me.

47 (9/6) purri-rna ngayi nhurna makurntu-ku...
pull-PAST I+NOM this-ACC spear-ACC
V S 0

I pulled this spear out....

V O S none so far
O V S

Although I have not so far found examples of V O S with overt Object and Subject, or of O V S similarly, there are plenty of examples of V O and O V with missing Subjects, and there are also examples of O V S where O is a Question word (question words usually appear first in a simple sentence.)

48 (8/10-11) kampa-ku kurlukurlu. thaka-iku warrapa-ku, yurntura-ka-i
burn-PRES little . take-PRES grass-PRES; mash-TVb-PRES
V V V O
(It) burns a little. I take grass, mash (it) ...

49 (7/2) "Jiyinngu-ku"yurrpi"-ru mangarr-ku "yirrpi"-ru...
tree sp.-ACC smooth-FUT bark-ACC smooth-FUT
0 V 0 V
(she) will smooth the tree sp. wood, smooth the bark...

50 (50) / nganangu nhaku-nha nyinta yijala yarnta-ka
who+ACC see-PAST you+NOM now day-LOC
0 V S

Who did you see today?
I assume that, although V O S and O V S are clearly not preferred word-orders, it is simply an artifact of the data that I have not come across any clear examples so far.

With indirect objects we have even less data:

S V IO O

51 (110) parraruuru yungku-nya ngaju nhausna wanka-ya
Parraruuru give-PAST I+ACC this-ACC language-ACC
S V IO O

Parraruuru gave me the language

S IO V O

52 (24) ngayi ngurna yungku-ru maria-ya
I+Num that+ACC give-TUT meat-ACC
S IO V O

I'll give that one meat

S IO O I V

53 (32/2) nguntha ngaju yumpu-ya thaya-nya palalyi-lyi
that one+Num I+ACC curse-ACC send-PAST once-TMECLIT
S IO O V

That one once sent me a curse

S V O IO

54 (109) palu thaya-nya mirlimirli-ku ngaju yirramakuru-1a-nguru
he+Num send-PAST letter-ACC I+ACC Roebourne-LOC-ABL
S V O IO

He sent me a letter from Roebourne
1.3.2. Free Word-order in Nominal Expressions

Determiners, quantifiers, locationals, possessives, and nominal modifiers can appear on either side of the nominal they modify.

Determiners:

55 (63) ngayi ngayi-ru ngurna nyurnti-yi
I+NOM throw+FUT that+ACC dead-ACC
BET NOUN

I'll throw that dead one away

56 (62) ngayi-ngali-yi ngathala nyurnti ngunhu
throw-PASS+FUT I+LOC dead+NOM that+NOM
NOUN +NOM BET

That dead one will be thrown away by me

Quantifiers:

57 (20/65) purrku-yi purrku-yi
few-ACC muscle-ACC
Q NOUN
a few pieces of meat

58 (20/72) purrku purrku
muscle few
NOUN Q
a few pieces of meat

Locationals:

59 (170) papa-ngka kankarni
water-LOC top +LOC
NOUN LOCAT1ONAL

on top of the water

60 (246) mathura-la papa-ngka
middle-LOC water-LOC
LOCAT1ONAL NOUN

in the middle of the water
Possession:

61 (262) ngajutharntu-ku kalakapu-ku
I+ POSS -ACC trousers-ACC
POSSESSOR NOUN
my trousers

62 (101) ngurra-yi nyinkutharntu-ku
camp-ACC you+POSS -ACC
YOU+X POSSESS
your home

Nominal Modifier:

63 (43/3) mirrka-yi pilyparrara-ku
big-ACC silver bream-ACC
NOM-MOD NOUX
big silver bream

64 (43/9) pilyparrara mirrka
silver bream big.
NOUX NOM-MOD
big silver bream

In combination with each other, there are such groups of modifiers as:

Determiner Nominal Modifier Noun

63 (43/1l) ngurra mirrka-yi wakari-ku
that-ACC big-ACC fish-ACC

Quantifier Noun Nominal Modifier

64 (34/2) jurlu-yi mayaka-ku mirrka-ngara-ku
all-ACC man-ACC big-PLUR-ACC

Pronoun Noun Quantifier

67 (27/7) palukurla juna-pura purrku
they PL avenger-PL several

Noun Determiner Nominal Modifier

68 (7/13) ngangka "nhuru" panthu-nguru-pura
mother this after-from-PL
younger generation

and there are many other possible combinations.
1.3.3 Free word order in verbal expressions

These verbal expressions consist of serial-verb-like constructions; (usually one element is a stance or motion verb.) and of verb + verbalized adverb structures. These will be discussed at greater length later. There is no special order - either of two serial verbs can precede the other, and similarly a verb can precede or be preceded by a verbalized adverb:

Serial verbs

69 (79) nhala-yi ngunhu karri-ku kampa-iku
what-ACC that+NOM stand-PRES burn-PRES
STANCE-VERB VERB

What's he standing there burning?

Serial verbs

70 (97) nhala-yi nyinta kurlica-varni-ku parni-ku
what-ACC you+NOM ear-become-PRESENT sit-PRESENT
VERB STANCE-VERB

What are you thinking about?

Odverbial verb

71 (37/19) nganarna wirnpa-ku palakarni-rri-ku
we+PL+EXCL follow-PRES like that-intVb-PRES
VERB ADVERB

We follow like that

Odverbial verb

72 (17/3) palakarnithal-ma-iku wangka-ku palu
like that one-TVbl-PRES say-PRES she
ADVERB VERB

She talks like that

1.3.4 Free order of Complements with respect to main verbs

By far the most common order is for the complement to appear after the main verb. However there are a few examples where it does not:
73 (33) ngayi purlpi nyarni waka-yi
I+NOM want slow go-SUB VERB COMPLEMENT

I want to walk slow

7k (186) ngayi waka-yi thampurla-la purlpi
I+NOM go-SUB Thampurla-LOC want COMPLEMENT VERB

I want to go with Thampurla

75 (60) ngayi kunti-ku waka-yi
I+NOM refuse-PRES go-SUB VERB COMPLEMENT

I refuse to go

76 (344) ngalha-nagli-yi ngathala kunti-ku
swivo-PASSIVE-SUB I+LOC refuse-PRES COMPLEMENT VERB

(She) doesn't want me (refuses to be swived by me)

1.4 Discontinuous Expressions

We have seen that there is free word order of major constituents within a sentence, and that there is free order within nominal and verbal expressions. We shall now show that these expressions themselves may be discontinuous; nominal, verbal and participial expressions may be split up within a sentence.

1.4.1 Discontinuous Nominal Expressions

Any part of a nominal expression that is a word may be split off: possessors, nominal modifiers, quantifiers, determiners, &c.

I shall show just a couple:
ngunhu thaliku-nha ngaju pajapurtu that+Nom hit-PAST I+Acc cheeky fellow NON DETERM NOUN

That cheeky fellow hit me

ngula ngayi thaliku-ngali-nha pajapurtu-la that+Loc I+NOM hit-PASS-PAST cheeky fellow-LOC DETERM NOUN

I was hit by that cheeky fellow

... marnta-ka murrnr-nga maru parni-ku mayaka hill-LOC back-LOC many sit-PRES man Q NOUN

... on the hill are sitting many men

wułkarli-ku wirnta-1ku malhu-yi thigh-ACC cut-PRES middle-ACC NOUN LOCATION

The hindlegs (he) will cut in the middle

ngunhu ngaju mayaka muja-rna marnra-yi that+Nom I+Acc man+NOM steal-PAST money-ACC DET NOUN

That man stole my money (stole money from me)

1.4.2 Discontinuous Verbal Expressions

The adverbial and serial verb constructions that I discussed in 1.3.3. may be discontinuous:

ngayi palakari-ma-rna purnumppangu wangka-nha I+NOM like that-TVbl-PAST he-ACC speak-PAST ADVERB VERB

I talked to him like that

nyinta purri-ru mirriji-ku kartarr-ka-ru/... you+NOM pull-PUT rope-ACC tight-TVbl-PUT VERB ADVERB

If you pull the rope too tight...
1.4.3 Discontinuous Participial Expressions

Participial expressions in the data are generally kept together, but there are a few that are split up.

83 (324) ngayi jimpayika-rnakurla-ku marrparnta-nha-pa
I+NOM lose-PASS+PART-ACC find-PAST-CLITIC
yartya-yi nyinta-la-ku
day/watch-ACC you+LOC-ACC
I found the watch you lost

1.4.4 Discontinuous Complement Expressions

These also are generally kept together, but again there are a couple of examples:

84 (3/12) kurna-yi thanak-iku kampa-ña-ku wanta-iku
charcoal-ACC take-PASS burn-CONT-ACC put-PASS

(1) will pick up the charcoal still burning
and put (it) (on the grass)

However, it appears that neither NOMINATIVE-controlled participial expressions, nor NOMINATIVE-controlled complement expressions may be discontinuous. Functionally, this is no doubt because they would not be recoverable; since NOMINATIVE is marked by $\emptyset$, and NOMINATIVE-controlled participial and complement expressions are therefore also marked by $\emptyset$ as a second CASE, whereas ACCUSATIVE controlled expressions as in 83 have all members marked with ACCUSATIVE as a second case.

Imagine, if NOMINATIVE-controlled participles could be controlled, the following sentence:

ngayi jimpayika-nguru yartna-yi marrparnta-nha-pa
I+NOM lose-ACT+PART (NOM) watch-ACC find-PAST-CLITIC

kurna-yi
charcoal-ACC
This sentence would mean either: I having lost a watch found some charcoal
or: I having lost some charcoal found a watch.

The majority of participial and complement sentences are NOMINATIVE controlled, and, since I have found no examples of discontinuous NOMINATIVE-controlled expressions, I conclude that they probably do not exist.

1.5 Preferred word-order

We have seen that there is apparently free word order within sentences, and that expressions of any kind can be discontinuous within a sentence. I have also noted in passing where a preferred word order exists. If Ngarluma is like Warlpiri, it is unlikely that word-order indicates topic/focus - instead, the clitic/-na/ seems to act as a topicalizer. Nordick says the same about Y. that there is no difference in connotation between different word-orders, and that there is no clear link between Topicalization and Fronting.

Locative and Time adverbials generally compete for final position. manner adverbials generally appear immediately before or after the verb. I have nothing to say about these orderings.
1.5.1 Order in Direct Questions

One word-order is apparently obligatory: this is the placing of the question word initially in direct questions. Thus:

35 (1k0) nhalawarni-nha nyinta mirta milpa-nha kunjirri-yarnta-yi
what-become-PAST you-NOM not come-PAST one-day-TMECLIT
why didn't you come yesterday?

36 (34/4) ngana-ngu nyinta puripi nyuratika-ru
who-ACC you+NOM want kill- SUB

Who do you want to kill?

The same TV words can appear elsewhere in a sentence, in which case they are interpreted either as indefinite pronouns, or as indirect questions. (I have no evidence for echo questions).

indirect question

37 (34/15) ngunthal mirta nyuratika-ka-nga nganangu
that+NOM not kill-TVb-PAST who+NOM

he has not killed anybody!

indirect question

39 (267) palu ngaju payinta-nga nhalu-ka-ru-ka parni-sha-du
be +TVb I+ACC ask-PAST what-TVb-COST-ACC sit-COST-ACC

He asked me that I was sitting doing

I shall assume that TV words are base-generated anywhere in the sentence, and that a rule of interpretation interprets them as Direct Questions only if they are sentence-initial. Elsewhere, they are interpreted as indefinite pronouns, or, for verbs that are subcategorized for taking TV complements, as indirect questions.
However, we would have to assume movement, rather than
base-generation, if an initial 31 word ever questioned
something in a lower tensed clause. In Ngarrumba, some verbs,
such as nxala "see" and kurlkawarni "think" can take tensed
clauses; i.e. their predicate argument structures allow for
one argument being filled by a tensed clause, rather than a
nominal expression. Now, I predict that to question anything
in the tensed clause complement, the question word would have
to appear initially in the tensed clause complement, NOT initially
in the main clause. Unfortunately, we do not have conclusive
evidence. Hale asked his informant for the sentence
"When do you think you'll get there?" which could have been
a test sentence. But the answer was an imperative:

(141) nyinta kurlkawarni-sa nhalawarra nyinta ngula-warni-yi
you+ NOM think-IMPER when you+ NOM there-become-TUT

(You think when you'll get there)

Whether this is a strategy to avoid questioning out of a lower
tensed clause, or whether the answer was given under a misapp-
prehension, is unknown.

1.6 Summary of Section 1

To sum up this first section: Ngarrumba has basically free
word order. Linear adjacency is used to mark off tensed
sentences, and clauses, and NON-THME-controlled participles
and complements. Initial position is obligatory for 31 words
forming direct questions. 32S is marked on all nominal
expressions, and is used to keep track of semantic expressions.

To y. (p.207) "the interrogative pronoun or verb always
in initial position within the sentence." However Boardick
gives no examples of questioning tensed clauses.
2. Operations in Syntax and Logical Form

Now, from the preceding section it should be clear that phrase structure rules are not motivated for Ngarlima. I propose to treat it as a non-configurational language, in terms of the W* framework Hale has used to describe Warlpiri. The model of the grammar I am using has the following shape:

Phrase Structure rule: $0 \rightarrow 0^*$

(generates an unlabelled branching tree)

Lexicon:
contains lexical entries, linking of case to thematic roles and grammatical relations, and lexical rules which change the case linkings

Lexical insertion:
inserts words with their category labels into the terminal nodes of the tree created by the phrase structure rule.

Syntax: Labelling
nodes of the tree are labelled with the categories of the words inserted under the terminal nodes

Logical Form:
interpretation operations, including:
interpretation of unmarked nominals
merger of discontinuous expressions
raising of case to mark merged expressions
evaluation of arguments of verbs, including arguments bound to an external controller ("control") or to an internal controller (reflexive)

Now the absence of bars in the phrase structure rule, in contrast to the $X$ (X-bar) type of phrase structure rule, indicates
that expressions do not have syntactic heads, and are not hierarchically ordered. Thus, in Ngarluma, there is no evidence for saying that a nominal expression has, say, the form:

\[
\begin{array}{c}
\text{N} \\
\text{DET} \quad \text{N} \\
\text{Q} \quad \text{N} \\
\text{ADJ} \quad \text{N}
\end{array}
\]

First, all three categories DET, Q and ADJ can act as nouns on their own, inflecting for case and number. Second, there is no rule which distinguishes in any way between, say, N N N or N .

However, although there is no evidence for the existence of hierarchically ordered categories such as N N N N, and although no categorial content is inherently specifiable by the phrase structure, categories such as N and V still exist, and so do complex semantic expressions containing several words of the same category, and so do complex semantic expressions equivalent to sentence (tensed) and clause/participle/complement (tenseless).

In the remainder of this section we will discuss first the kinds of categories, and then the operations in syntax (labelling) and in logical form (interpretation) that use these categories.
Each root has as part of its lexical entry the category to which it belongs. Each affix has as part of its lexical entry the category (or categories) to which it can attach, and the category of the new root + affix combination. Thus we will write the lexical entry of the affix /-ka/ which apparently makes Transitive verbs of nouns as follows:

\[ \text{N} \text{ka} \text{Trans. Verb} \]

This is to be read as: /-ka/ attaches to a Noun to form a transitive verb. It is necessary for transitivity to be a categorical feature in wordformation, because at least one affix specifies that it must be attached to a root of a certain transitivity. This is the Causative affix /-jirrima/ which apparently attaches only to Intransitive verbs:

\[ \text{Int.V} \text{jirrima} \text{Tr.V} \]

Now, in wordformation, it is necessary to know the category of a lexical item in order to know what affixes may attach to it. In syntax it is necessary to know the category of a lexical item.

---

1 In Y., apparently the CAUSATIVE is attached to \$ stem verbs, and not to verbs in other conjugations. \$ stem verbs are primarily intransitive, but include some like [wangka] say:

(p.163) [wangka-yirraa] make someone talk.

Now, if it is the case that [wangka-yirraa] can take another Object: make someone talk to John, then conjugation membership would have to be part of the categorial information open to word-formation rules. However, I do not have the information.
item in order to label the tree created by the phrase structure rule. Word formation creates lexical items marked with their categories which are inserted into the terminal nodes of the phrase structure tree. However, the categories used in labelling trees are a subset of those needed in word-formation. We will call, following Hale, the categories needed for labelling the categorial signature of a word. These categories are:

\[ +N \rightarrow -V \]
nouns, pronouns, determiners, adjectives, numerals, quantifiers, adverbs

\[ -V, +V \]
verbs: active, passive; imperative, irrealis, habituative, present, future, past

\[ +N, +V \]
complements: simultaneous, subsequent participles: active, passive evitatives ("lest")

CASE
NorImative, Accusative, Locative, Allative, Abitative, Possessive, Causative, Instrument, (?Prehensive), (? Having)

TENSE
Tense: Present, Past, Future
Mood: Imperative, Habitual, Irrealis

Following Nash, we shall assume that clitics have no category of their own, and that they may attach to any category: thus the clitic /-lyi/, which means something like "at the time when", and refers to the whole expression or to the item to which it is attached, will have the lexical entry:

... ] lyi ]

---

1 What is to prevent a clitic attaching to a verb root and being inserted as a terminal node for labelling in that form? This in fact is the same question as what prevents a bare verb root from being inserted into a terminal node - we shall say that a verb root has the category \[ V ] and that TENSE has the category \[ V _ TENSE \] and that only categories without underbars may be inserted into the terminal nodes for labelling. Nouns will not have underbars because a bare noun root is interpreted as NorImative.
The categorial signature consists first of the base-category, which will be \([+N, -V]\), \([+N, +V]\), or \([-N, +V]\), and then of CASE or TENSE. CASE attaches to \([+N, -V]\)
\([+N, +V]\) i.e. to something whose base-category contains \(+N\). TENSE attaches only to \([-N, +V]\). Further, since two CASEs can attach to the same \([+N, -V]\) and since the order of their attachment is important, this will be reflected by order in the categorial signature. The most deeply embedded CASE will appear next to the base category. Thus, take the word:

\[
papa-ngka-ku
\]
\[
water-LOC-ACC
\]

It will have the categorial signature: \[
\begin{bmatrix}
[+N, -V] \\
[+LOC] \\
[+ACC]
\end{bmatrix}
\]

We will now look at each of the base-categories in turn, and discuss their relation with the other categories CASE and TENSE, and with categories in word-formation that do not form part of their categorial signature.

2.1.1. \([+N, -V]\)

\([+N, -V]\) includes all nominals, including those that are semantically quantifiers, demonstratives, adverbs, adjectives. They may be used to refer to an individual, or they may be used as predicates. There is no real copula in Ngarluma, and so, to say something like "I am big" one just uses the nominal
mirrka "big" as a predicate "ngayi mirrka"
I+nOM big

Some nominals have their own predicate argument structures. Thus purlipi "to want", "be desirous of" (the standard word for "want") may take an Object or a Complement. Similarly, kinship terms usually take an ACCUSATIVE object (one is not a cousin, but a cousin to/of someone).

Now, the only other category that appears with the base-category +N,-V is CASE. I am simply using the labels NOMINATIVE, ACCUSATIVE &c to represent the particular instances. It is possible that one could devise a system of case-features that specify these cases more illuminatingly than these labels.

Thus for instance ALLATIVE might be + Goal whereas ABLATIVE would be - Goal &c.
+Source
-Source

But I have not attempted to work such a feature system out.

One might well ask why NUMBER is not included in the categorial signature together with CASE, as Halle has done in his account of Warlpiri. In Warlpiri, however, NUMBER is obligatory, and moreover, absence of NUMBER is interpreted as singular or greater plural - it cannot refer to, say, dual except in highly restricted incorporation contexts. Ngarluma, we shall see, differs from Warlpiri in this.

Now, NUMBER is, however, a necessary category in word-formation. It must be part of the category label accessible to word-formation rules, since one NUMBER suffix cannot affix onto another NUMBER suffix. Nor can a NUMBER suffix affix another
onto something that has inherent NUMBER like a quantifier.

Thus the following forms probably do not exist:

purru-kutha   maru-pura   kutharra-pura   kutharra-kutha
few-DUAL      many-PLURAL two-PLURAL     two-DUAL
(see 2.2.1)

However, it seems that for labelling it is not necessary to include NUMBER in the categorial signature. Unlike CASE, two elements do not have to be overtly marked for the same NUMBER for them to form a single semantic expression. Indeed the preferred state seems to be for just one member of an expression to be marked for NUMBER (including inherent NUMBER). Absence of NUMBER on the other elements can then be interpreted to agree with the marked. However, sometimes, both elements can be marked for NUMBER:

(24/2) maru-yi mayaka-ku   (26/3) maru parni-ku mayaka
many-ACC men-ACC          many-NOM sit-PRES men-NOM

Many men are sitting

(27/21) nhurna mayaka-pura-ku   (23/3) "Karijarra" jurlu
this-ACC man-PLUR-ACC      "Karijarra" all
these men

(27/7) waka-nha palu-kurla juna-pura purrku
go-PAST 3rd-PLURAL "avenger"-PLURAL several
They went, several avengers.

How do we prevent two expressions with incompatible NUMBER forming a single semantic expression e.g.,

maru mayaka-kutha
many-PLURAL man-DUAL NOM
(I assume that this is bad, that it cannot even mean something like: "many groups of two men") I shall assume that incompatible NUMBER is ruled out in interpretation, just as incompatibility of other semantic features would be ruled out. For instance, take a sentence like:

\[(142) \text{ ngayi mirta parrura waka-ku} \]
\[\text{Y+NON: not+NON long time+NON go-PASS} \]
\[\text{I will not be long} \]

(mirta and parrura get assigned NOMINATIVE by the NOMINATIVE assignment rule; (see 2.3) but normally with such examples I won't write NON in ). We could merge ngayi with, say, parrura by our merger of words with identical case rule. But interpretation will rule out such a merger because "I" and "a long time" cannot form a single semantic unit. I shall assume that the same process blocking this blocks incompatible NUMBER mergers.

NUMBER can also appear on +N,+Y constructions, although very rarely;

\[(12/4) \text{ mirta ngalha-rnuru-pura jurlu waka-yi ngamina-ku thake-ru} \]
\[\text{not swive-ACT+PART-PLUR all go-FUT dugong-ACC get-SUN} \]
\[\text{all those who did not swive will go and get dugong [a sea mammal]} \]

\[(5/1) \text{ nganarna kunangu-ku paryi-ru-pura parni-ku} \]
\[\text{we+PL+EXCL corroboree-ACC stamp- SUN-PLUR sit-PASS} \]
\[\text{We are the ones to stamp (dancers) for corroborees} \]

\[(55/46) \text{ nhurtu kartaka-rnuru-kutha curla-warni-nha-pa} \]
\[\text{this-MON spear-ACT+PART-EU bird-become-PAST-CLIT} \]
\[\text{(These) two having speared (them)) became: birds} \]
Here it *occurs* after the affix that indicates base-category, but if there were CASE it would precede CASE. We will, however, continue to claim that NUMBER is not in the *categorial signature.*

2.1.2 \(-X,YY\)

The only affixes that can occur on \(-X,YY\) are the *Tense/ Mood* affixes. They are mutually exclusive. With further investigation one would hope to set up a system of features differentiating between them. For instance, we would like to group \(\text{PAST and FUTURE} \) against \(\text{PRESENT}\), because the \(\text{PAST and FUTURE}\) suffixes, if assigned \(+X,YY\) in word-formation rather than \(-X,YY\), can act as Complements and receive CASE, whereas the \(\text{PRESENT}\) never can. And one would like to group the *Tense* affixes (\(\text{PRESENT, PAST and FUTURE}\)) against \(\text{IMPERATIVE, HABITUATIVE and TEMPAL}\), and one would like to group \(\text{IMPERATIVE and FUTURE}\) together, because negative \(\text{IMPERATIVE}\) sentences are made with the \(\text{FUTURE}\).

But this must await further study of \(\text{Ngardlama}\).

Now in word-formation, as I mentioned earlier, we probably need *transitivity* in categorial information. There is one instance in labelling which looks as if transitivity might also be necessary in categorial signatures. However, it turns out that it can probably be handled without it. This is the case of *serial* and *adverbial verb constructions.*
3.1.2.1 Serial and Adverbial Verbs

The serial and adverbial constructions in Ngarluma resemble those described by T.H.W. Dixon in Dyirbal:

"Just as an adjective, modifying a noun, will inflect in exactly the same way as the noun, so an adverbial, modifying a verb, inflects in exactly the same way as the verb. With verb root buybal "hide" and adverbial root nuymal "do it properly" we get verb complexes buybal nuyman "hide it properly", buybal nuyman "will hide it properly", buyba-virin nuyba-virin "hide oneself properly" and so on.

Each verb or adverbial root is either strictly transitive or else strictly intransitive: " p.54

"A VC (Verb Complex) can contain any number of verbs or adverbials provided that: 1. they agree in surface transitivity and 2. they agree in tense or other final inflection."

In Ngarluma, like Dyirbal, verbs can be combined into a single verbal expression, if they have the same TENSE, and are not separated by verbs with different TENSES. As for the transitivity restriction, it may hold in Ngarluma too, but only with the adverbial verbs. Serial verbs certainly do not have to be of the same transitivity. However, the meanings of the verbs incorporated must allow the same argument to be assigned to the NOMINATIVE position of each verb, and, if there are ACCUSATIVE positions, a single argument must be assignable to the ACCUSATIVE positions of each, Thus it would probably be impossible to incorporate thunthu-varni "become dark" with kurlka-varni "think", because the former needs a place for its NOMINATIVE, and the second demands an experiencer, and these two are probably incompatible. But it
is not the job of the labelling or merger components to rule out these appearing in one semantic expression. Instead, this is the job of the interpretive rules. The interpretative rules assigning arguments to argument places will disqualify this incorporation.

The following is an example of a serial verb:

\[
\begin{array}{c}
-N+V \\
\end{array}
\]

\[
\begin{array}{c}
-N+V+PRES \\
-N+V+PRES \\
+NN-V+ACC
\end{array}
\]

(320)  
\[\text{jipa-1ku; waka-ku; karlathangu-ku}\]
chase-PRES go-PRES cattle-ACC

(he) is driving the cattle along.

The actions are interdependent and contemporaneous. We pick the transitive verb as the head only because it will make the interpretive rule that evaluates the two verbs in parallel slightly easier.

Returning to the adverbial verbs, these differ from Dyirbal in that the roots are not strictly intransitive or transitive - they are in fact nouns, and can modify verbs as nouns e.g. (28/8)  
\[\text{waka-ku; wakarpa-rrri-ku; palu-karni}\]
go-PRES turn-IntVbl-PRES like that +NOM

They go and turn like that.

But more often they are converted into verbs by the addition of a transitive or intransitive verbalizer, as the following:
In 100 and 102 the main verb is transitive; the adverbials have the transitive verbalizer /ka/. In 101 the main verb is intransitive; the adverbial has the intransitive verbalizer /warni/.

To explain why adverbials apparently agree in transitivity with the verb they modify, we could say that transitivity is in the categorial signature, and that adverbial verbs have to agree in transitivity in order to be evaluated in parallel with another verb. But then we would have to distinguish adverbial verbs from serial verbs. There is no syntactic or morphological difference. Instead, I think that the agreement in transitivity in adverbials results from the fact that, if the adverbial verb had different transitivity, the sentence would get a different interpretation. Thus in 100 the three verbs have the same ACCUSATIVE /jurlu-yi/ "all of it" filling their ACCUSATIVE argument place. Had, say, kurlukurlu "small", been made into a verb with an intransitive verbalizer, as in 103 below, then in 100, either palukurla or some third person singular would be interpreted as "having become small". The whole sentence would have meant:
"They take it and cut it and get small"
just as in 103

(29/19) palu kurlukulu-rrri-nha
he small-Inf\#bl-PAST

He got small

Thus we do not have to make a distinction between adverbial and serial verb constructions. If the verbs agree in TENSE then they may be evaluated in parallel. If they do not, a well formedness condition to be discussed in 2.2.1 will rule them out from being part of the same semantic expression.

2.1.3 \([X, +Y]\)

\([X, +Y]\) expressions, unlike \([-X, +Y]\) expressions, may be discontinuous, and may carry CASE and NUMBERS.

Participles: Active Passives\[\{\text{ru\#ru}\} \quad \{\text{nha}\} \quad \{\text{kurla}\}\]
(the allomorphy is that of the Past tense for both)

Complements:
\[\{\text{ru}\} \quad \{\text{nha}\} \quad \{\text{yi}\}\]
"contemporaneous action" homophonous with the Past Tense

"subsequent action", "infinitive" homophonous with the Future Tense

Evitative Complement:
\[\{\text{piji}\} \quad +N, +V\]
"lost"
Again, one would wish a semantic feature system to distinguish between these.

Examples of and further discussion of participles and complements will be given in the section on control.
2.2. Operations in Syntax

We assume that the only Phrase structure rule necessary in Ngarluma is the rule

\[ 0 \rightarrow 0^* \]

This produces a tree with indefinitely many branching nodes. But, no node has inherent categorial content, unlike the nodes created by \( X \) phrase structure rules.

We assume free lexical insertion that inserts one and only one lexical item into each terminal node. The categorial signature of the lexical item is used to label the node the lexical item fills.

Larger expressions are created out of this string of terminal nodes in two ways. First, in the syntax, by a principle labelling non-terminal nodes. Second in the logical form component, by merger of elements with identical CASE, and parallel evaluation of verbs with identical TENSE.

Labelling allows us to capture the fact that members of a nominal or verbal sentence are linearly adjacent, and that \((+N,+V)\) expressions such as participles and complements consist of linearly adjacent elements - if the controller of the \((+N,+V)\) expression is NOMINATIVE, there are no examples so far of NOMINATIVE controlled \((+N,+V)\) expressions with discontinuous members.

Merger allows us to represent the fact that a single CASE-marked semantic expression (including NOMINATIVE as well as the overt CASEs) may consist of discontinuous elements all marked for the same CASE. Parallel evaluation of verbs with
identical TENSE expresses the fact that sentences may have several verbs, provided they have the same TENSE and are evaluated by the same arguments.

2.2.1 Labelling

Labelling on non-terminal nodes is done according to the following principle:

The base category of any lexical item L may label the non-terminal node X immediately dominating L. X and L are then coindexed. Coindexing encodes the fact that L is to be considered the head of the larger semantic expression dominated by X.

The following are examples of structures labelled by this rule:

104 (39/5) verbal sentence

\[
\begin{align*}
&{[-N+V]}_L \\
&\quad \downarrow \\
&{[+N-V]} \quad {[-N+V]}_L \quad {[+N-V]}_i
\end{align*}
\]

ngayi thatra-ya ngulul-ya
I enter-FUT hole-ACC

I will enter the hole

105 (32/7) nominal sentence

\[
\begin{align*}
&{[-N+V]}_i \\
&\quad \downarrow \\
&{[+N-V]} \quad {[+N-V]}_i \quad {[+N-V]}_i \quad {[+N-V]}_i
\end{align*}
\]

ngayi purpi ngurna mayaka-kur
I desirous that+ACC man-ACC

I like that man
Nominal Sentence

106 (20/7b)  

\[ [+N, -V] i \]
\[ [+N, V] j \]

Nyinku you + ACC
Ngalyi neck

The neck is for you.

Nominal Sentence with Complement

107 (33)  

\[ [+N, -V] i \]
\[ [+N, +V] j \]

Ngayi puripli wakari-ku paja-ru
Desirous fish - ACC eat - SUB

I want to eat fish.

Verbal Sentence with Complement

108. (45)  

\[ [-N, +V] i \]
\[ [+N, +V] j \]

Ngunuku ngaju wanka-nha nhuwa-ku wanka-rru-ku
That I + ACC tell - FAST there + LOC - ACC put - SUB - ACC

He told me to put it there.

Note that a non-terminal node may dominate a single terminal node.

---

I have used this notion of a node that does not branch in order to account for single word sentences, and to prevent single-word participles and complements from being sisters to the verb and thereby possibly being evaluated by other nominals that are sister to the verb. However, Hale has suggested to me that this may not be necessary; if we allow the actual complementizer /-nguru/ or /rakula/ &c to form a branch with the verb it attaches to, we will solve the second problem. And the first could probably be solved by conventions. See Nash (1980) for an alternative solution.
Then, in interpretation [wakari-ku] would evaluate an argument of [purli]: "I want fish to eat"; [pajaru] is then a purpose clause: "so that I can eat(them)". In the first interpretation, [wakari-ku] fills an argument of [paja-ru], and the [pajaru] clause itself fills an argument position of the noun [purli].

As well as there being different tree structures, we could also have taken different terminal nodes to act as [heads], and label the immediately dominating non-terminal node. But, in Ngarluma, the head of an expression must be a [predicate], whose argument places are filled by the terminal elements immediately dominated by the same non-terminal node (or bound to elements sister to that non-terminal node). Therefore, choosing a different [predicate] will result in a different interpretation. But choosing some lexical items as predicates will result in quite incoherent interpretations, because other lexical items sister to the [predicate] will neither fill an argument place of the predicate, nor be interpretable as bound to such an argument place, nor be interpretable as a Time/Place/Instrument adjunct entailed by the meaning of the predicate. Thus suppose in 104 [ngayi] had been chosen as the head:

```
[+N,-V]
```

```
[+N,-V] [N,+V] [+N,-V]
```

```
gayi tharrpa-yl mulyi-yl
```

Now, by a general redundancy rule in the lexicon which says that any noun not already having a predicate argument structure may be a one-place predicate, [ngayi] can be interpreted as a
one-place predicate. It would mean something like:
"x EUI 1". The free argument x would be automatically
assigned NOMINATIVE. There is no ACCUSATIVE argument of
this predicate for muli-yi to fill, and so it must be inter-
preted as a purposive or benefactive adjunct predicate.
"x EUI E Y FOR hole " Finally, the verb tharrpa-yi
is FUTURE. Now we shall propose later that there is a
constraint preventing two verbs with different TENSE from
being immediately dominated by the same node (or, rather, from
being part of the same semantic expression, except in the case
of tensed complements to a handful of specially marked verbs.)
We will also propose that a sentence with a Nominal Expression
as predicate-head will be interpreted as PRESENT, except perhaps
in a few marked instances. So, in this sentence tharrpa-yi PUT
and uayi PRESENT will be uninterpretable as members of the same
semantic expression. The sentence is incoherent.

It is probably very unusual for pronouns like uayi ever to be
predicates rather than names. In fact, it is likely that there
is a hierarchy of ability-to-be-a-predicate. Pronouns are very
low and verbs are very high. Nominal expressions like purpli"want"
which have their own lexically marked predicate argument
structures are higher than nouns like yakari "fish" which, if
they are to be interpreted as predicates, get a one-place
predicate argument structure by a redundancy rule in the lexicon.
After the tree has been labelled, there are two well-formedness conditions that apply:

1. No node may be unlabelled

2. No node may immediately dominate two or more \(-N+V\)' elements with different TENSEs in their categorial signatures.

This last condition is intended to capture the facts that Ngarrluma can have serial verbs and adverbialized verb constructions (discussed in 2.1.3.1), and that some verbs subcategorize for a tensed sentence complement. Serial and adverbialized constructions always have the same TENSE. Tensed sentence complements can be allowed by the immediate dominance condition—the TENSE marked verb in a tensed complement will not be immediately dominated by the same node that dominates the higher predicate.

2.3 Logical Form Operations

Logical Form operations then take place.

First, NOMINATIVE CASE is assigned to all lexical items which have no overt CASE marking; this assignment is obligatory.
1. Assign (+X) lexical items NOMINATIVE CASE iff there is no CASE in their categorial signatures.

All nominals, including predicates, nominal and participial or complement, will receive NOMINATIVE if they are not marked with some other CASE. Thus, 107 after this rule will be represented by the following labeled bracketing:

```
```

where agayi, purlipi, and paja-ru received NOMINATIVE as a result of this rule. Notice that non-terminal nodes not being lexical items, will NOT get marked NOMINATIVE by this rule.

A rule R2 operates to copy the TENSE of a predicate into the categorial signature of the immediately dominating node. Thus, the sentence 109 would now look like this:

```
```

Copy TENSE of a coindexed element into the categorial signature of the larger expression coindexed with that element.

After NOMINATIVE assignment (TENSE copy is not crucially ordered, except that it is copied before Interpretation, merger takes place.

2.3.1 Merger

Merger, roughly, takes expressions marked by the same CASE and forms a single semantic expression, which may be nominal: "the tall blonde Swede". Or, it could be any +X+V expression, whether
participial, complement or nominal phrase, like "I saw the man cooking beans". The base-category of the new expression is provided either by that of a coindexed element within the new expression - thus, suppose in the following sentence kurna-yi and kampa-rna-ku were merged:

\[
\begin{align*}
\text{I take the still burning charcoal} & \\
\text{kampa-rna-ku becomes the head of the new expression, and assigns} & \\
\text{its base-category to the expression, because it is the only} & \\
\text{coindexed element present.} & \\
\text{Or, if there is no base-category provided by a coindexed element,} & \\
\text{the expression will automatically be assigned } +N,-V. & \\
\text{Thus} & \\
\text{that big fish}.
\end{align*}
\]

Note that for elements to be merged they must be sisters; i.e. immediately dominated by the same node, or, in terms of labelled bracketing, the second set of brackets surrounding the one must be the second set of brackets surrounding the other. Note that merger is an optional rule. The implications of this will be discussed later.

**Merger:** Any sister expressions marked for the same CASE may merge to form a single semantic expression; if one of the sisters is indexed then its base-category will label the new expression. If there is no indexed element, then the base category of the new expression is \((+N,-V)\).
2.3.2 Case-raise

A second rule which follows Merger and also creates the environment for Merger to operate again is Case-raise. This copies a given CASE into the categorial signature of any expression if all members of that expression are marked for that CASE. Simultaneously, it removes that CASE from the categorial signatures of all the members. Thus, after Case-raise, the merged expression III would look like this:

III

\[ \text{ngurnu}^{+N_{V}}\text{mirrka-yi}^{+N_{V}}\text{wakuri-ku}^{+N_{V}}\text{+ACC}^{+N_{V}} \]

Case-raise: If all elements of an expression are marked for the same CASE then this CASE is marked in the categorial signature of the expression, and it is removed from the categorial signatures of all the elements of the expression.

Case-raise is an optional rule.

Case-raise also operates in instances where Merger has not taken place. Thus, in a sentence like the following:

I12 (50) \[
\text{ngay}^{+N_{MV}}\text{kunti-ku}^{+RES}\text{waka-yi}^{+N_{MV}}\text{+SUBJ}\text{+PRES}\text{+NOM}
\]

I don't want to go.

Case-raise would raise the CASE on waka-yi to get the following:

\[
\text{waka-yi}^{+N_{V}}^{+N_{V}}^{+NOM}
\]

Now, after Case-raise, Merger may operate again. Thus

I13 (50) \[
\text{ngay}^{+N_{MV}}\text{kunti-ku}^{+RES}\text{waka-yi}^{+N_{MV}}\text{+SUBJ}\text{+PAST}\text{+PART}\text{+ACC}
\]

I found the watch you lost.
First, \([\text{jimpayika-rnakurla-ku}]\) undergoes Case-raise to get

\[
\left[ \text{jimpayika-rnakurla-ku} \right]_{\text{N}+V}^{\text{N}+V} + \text{ACC}
\]

Then this is merged with \(\text{nyintala-ku}\) to get

\[
\left[ \text{jimpayika-rnakurla-ku} \right]_{\text{N}+V}^{\text{N}+V} + \text{ACC} \left[ \text{nyintala-ku} \right]_{\text{LOC}} + \text{ACC}
\]

Then this undergoes Case-raise again to get

\[
\left[ \left[ \text{jimpayika-rnakurla-ku} \right]_{\text{N}+V}^{\text{N}+V} + \text{ACC} \right] \left[ \text{nyintala-ku} \right]_{\text{LOC}} + \text{ACC}
\]

By a general convention we shall erase identical brackets:

\[
\left[ \text{jimpayika-rnakurla-ku} \right]_{\text{N}+V}^{\text{N}+V} + \text{ACC} \left[ \text{nyintala-ku} \right]_{\text{LOC}} + \text{ACC}
\]

I'll now show a few more derivations:

Take the sentence:

(60) \(\text{ngunhu thalku-nha ngaju pajapurtu}\)
That cheeky fellow hit me

Suppose, after labelling and NOMINATIVE assignment, it has the following labelled bracketing:

\[
\left[ \text{ngunhu} \right]_{\text{N}+V}^{\text{N}+V} \left[ \text{thalku-nha} \right]_{\text{N}+V}^{\text{PAST}} \left[ \text{ngaju} \right]_{\text{ACC}} + \text{ACC} \left[ \text{pajapurtu} \right]_{\text{N}+V}^{\text{NOM}}
\]

Kerber allows the NOMINATIVE case-marked expressions to form a single NOMINATIVE expression:

\[
\left[ \text{ngunhu} \right]_{\text{N}+V}^{\text{NOM}} \left[ \text{pajapurtu} \right]_{\text{N}+V}^{\text{NOM}} + \text{N}+V
\]
Then **Case-raise** makes it into the following: with P2)

\[
\text{ngunjwu \ pajapurtu}^{+N,-V}+\text{NOM}
\]

Now let us look at 107. After **labelling** and NOMINATIVE assignment it has the following labelled bracketing:

\[
\begin{align*}
\text{ngayi}^{+N,-V}+\text{NOM} & \quad \text{purlo}^{+N,-V}+\text{NOM} & \quad \text{wakari-ku}^{+\text{ACC}} & \quad \text{pajaru}^{+N+V}+\text{NOM} + \text{SUB} \\
\text{desires} & \quad \text{fish-ACC} & \quad \text{eat} & \quad \text{SUB} + \text{ACC}
\end{align*}
\]

The expression **vakari-ku, pajaru** cannot be **CASE-marked**, because, since one of its elements is **NOMINATIVE** and the other **ACCUSATIVE**, they cannot **Case-raise**; there is no way for the larger expression to get **CASE**, and engage in mergers.

However, in the following sentence the +N+V can get **CASE**:

\[
\begin{align*}
\text{ngunjw}^{+N,-V} & \quad \text{ngaju}^{+N,-V}+\text{ACC} & \quad \text{wantha-ru}^{+N,-V} \text{ PAST} & \quad \text{nhula-ku}^{+\text{ACC}} & \quad \text{wantha-ru}^{+\text{ACC}} + \text{SUB-ACC} \\
\text{tell PAST} & \quad \text{here-ACC} & \quad \text{there-ACC} & \quad \text{put-ACC}
\end{align*}
\]

(he told me to put it there)

Here, both elements of the (+N,+V) expression **nhula-ku, wantha-ru** are marked **ACCUSATIVE**. Therefore they can **merge**.

\[
\begin{align*}
\text{[\text{nhula-ku}]^{+\text{ACC}}} & \quad \text{[\text{wantha-ru}]^{+\text{ACC}}} \\
\end{align*}
\]

Now, in general NOMINATIVE-controlled participles and complements will be unable to engage in **merger** because, since they usually consist of disparately CASE-marked elements as in 107, they will be unable to get **CASE** marked on the whole expression, and therefore be unable to **merge**. However, this predicts that, were a NOMINATIVE-controlled particle to consist just of the participle word, as in:

\[
\begin{align*}
\text{ngarri-yi} & \quad \text{pungka-nguru} \\
\text{lie-PUT} & \quad \text{fall-ACT+PAST}
\end{align*}
\]

It lies, having fallen.
then Case-raise could occur:

\[
\left[ \text{nungka-nguru} \right]^{+\text{NOM}} \rightarrow \left[ \text{nungka-nguru} \right]^{+\text{NOM}}
\]

And then, merger could occur - but of course, only with NOMINATIVE marked elements. However, we shall see in the Interpretation section that, because Case-raise will obliterate the CASE on a NOMINATIVE marked expression, these will be almost uninterpretable in any meaningful way.

Now, the following sentence will show what happens with and without merger:

(286) ngarluwa-vila wangka wanyaparri-ngali-ku ngathala-tha
Ngarluma-like language hear-PASS-PRES T+LOC-COND

The language seems to me (is heard by me as) to be Ng.

If the option of merger is exerted, the first two words will form a single expression:

\[
\left[ \text{ngarluwa-vila} \right]^{+\text{NOM}} \rightarrow \left[ \text{wangka} \right]^{+\text{NOM}}
\]

This will be interpreted as the argument occupying the first argument slot of wanyaparri-ngali-ku. The whole sentence will then mean something like: "A language like Ngarluma is being heard by me". But if the option of merger is NOT exerted, then ngarluwa-vila can be interpreted as a predicate, x BE LIKE Ngarluma. The NOMINATIVE wangka will be understood as the first argument of wanyaparri-ngali-ku, and this argument place will control the freeplace of the predicate ngarluwa-vila.

The whole sentence will then mean something like: "The language is heard by me as Ngarluma" (it sounds like Ngarluma to me).

This in fact is the meaning given in the field-notes. But the first is I believe equally possible.
2.3.3. Interpretation

Now, in a sentence like

(24) ngwebu ngaju wangeka-nha nhule-ku wantha-rru-ku
    He told me to put it there

merger would allow us to merge ngaju with the [+N+n] expression
nhule-ku wantha-rru-ku, since both are marked +ACC. That
will rule this out is the interpretation. Interpretation
takes place after merger and case-raise. Interpretation is
the process by which:

1. some elements are identified as predicates and others
   as arguments

2. argument-places of predicates are evaluated by given
   arguments

The first indication that an element is a predicate is if it
is indexed. All indexed elements are predicates. The
second indication that an element is a predicate is, if once
the indexed element has been interpreted as a predicate and
all its argument places have been evaluated, there remain
elements that are neither indexed nor evaluators of an argument
position of the indexed element. These may then be interpreted
as predicates whose free place is bound either to the expression
as a whole, or to an argument place of another predicate within
the expression. Suppose, after using all the overt arguments
in an expression to evaluate the predicate(s) in that expression,
there remain some unevaluated argument places for a given
predicate. Then these unevaluated argument places will be
assigned either a discourse referent or a third person singular:

If no overt argument can be found to evaluate a predicate
argument position, evaluate it by a discourse referent
or some third person singular.
I'll first put forward and discuss some examples of
interpretation, then we'll return to why the merger of a np
in 10.2 would be ruled out by interpretation.

NOMINAL

2.3.3.1 Nominal Sentences

(70) aganarna piringu-pura
we+PL+EXCL relative-PLUR

we are all relatives

So, after syntactic labelling, the form to be interpreted is the following:

\[
\left[\left[\text{aganarna}^{NOM} \right]^{NOM} \left[\text{piringu-pura} \right]^{NOM} \right]^{NOM}
\]

piringu-pura is the predicate. It is a one-place predicate
with an equational meaning. The first place of this predicate
is NOMINATIVE (to be discussed in 2.1.1). The only NOMINATIVE
overt argument in the expression is aganarna. We allow
aganarna to evaluate the NOMINATIVE argument position of
piringu-pura. There are no other arguments in the expression.
The predicate and the argument do not disagree in number — both
are marked for plural. The interpretation is complete.

Notice that, had we allowed 115 to undergo Case-raising, we would
not have got the same interpretation. The result would have
been:

\[
\left[\left[\text{aganarna}^{NOM} \right]^{NOM} \left[\text{piringu-pura} \right]^{+NOM} \right]^{+NOM}
\]

aganarna because it is no longer +NOM cannot fill the NOMINATIVE
argument position of piringu-pura. Instead it can only be
interpreted as a predicate "some third person BE us and BE rel-
ations".
thaya-rna is the predicate, a three-place predicate, with an argument structure marked: NOM ACC ACC. Thampurla is the only NOMINATIVE in the sentence - and so it evaluates the NOMINATIVE argument position. There remain two ACCUSATIVE argument positions and two ACCUSATIVE marked arguments. Either could be used, but clearly a recipient is more likely to be animate, and a transferred object inanimate. So, the ACCUSATIVE linked with the recipient/Goal will be evaluated by ngayi, and the transferred object/Theme will be evaluated by mirrimili-ku.

Notice that, had we merged ngaju and mirrimili-ku we would have got a very odd interpretation, reminiscent of inscriptions on swords: "T,(a sword), bite threats") "Thampurla sent me, a letter, to(you/him...)", where the recipient is understood, not overt.

yarrima-ru is the main predicate, a two-place predicate, the first argument being NOMINATIVE and the second ACCUSATIVE. ngayi, the only NOMINATIVE marked argument, evaluates the NOMINATIVE argument place of yarrima-ru. The ACCUSATIVE argument place could be evaluated by either nyinku or wirrpa-yi. But the object of "make" is usually inanimate, and so wirrpa-yi is most likely to evaluate that argument position. Now that both argument positions of the predicate are filled, nyinku is left over. There is no other predicate for it to evaluate, and so it
is interpreted as being a predicate itself. Since its CASE is ACCUSATIVE, and since nyinuk represents essentially a human, the most likely interpretation for the meaning of the predicate is BENEFECTIVE, "for you". The free argument of the BENEFECTIVE is probably not wirrpa-yi, (since then we might expect an extra ACCUSATIVE on nyinuk, indicating that its controller is ACCUSATIVE ) but rather the sentence as a whole.

\[ \text{marawanjarri-nha} \quad \text{ngathalanguru-ku} \quad \text{marangkanguru-ku} \]
\[ \text{drop-PAST} \quad \text{1+LOC-APL-ACC} \quad \text{hand-LOC-APL-ACC} \]

(1) dropped it from my hand

The predicate marawanjarri-nha is two-place: NON ACC. There is no overt NOMINATIVE marked argument, and there is only an ACCUSATIVE which is also marked LOCATIVET+ABLATIVE. Discourse tells us to understand a first person singular referent for the NOMINATIVE position. "from the hand" does not make sense as the ACCUSATIVE object, but the ACCUSATIVE marking it bears tells us that it must at least be controlled by the ACCUSATIVE argument position. So we will assume an understood third singular referent (it). ngathalanguru-ku marangkanguru-ku will then be understood as predicative: x FROM my hand - and x is controlled by the ACCUSATIVE argument position of the verb.

---

1This is like the ethical Dative, in which the action is taken as the first argument e.g.:
(20) ngaju wanja nyurntiwarri-nha thunthu-ka
   I+ACC dog+NON die-PAST night-LOC
   - My dog died on no last night
wanja is not the subject of the ethical dative, rather the dying of the dog is.
2.7.9.3 Participial and Complement Sentences

There are two predicates here, **kurikawarni-ku** and **waka-nguru-ku**. We'll look at the least embedded one first, the two-place predicate **kurikawarni**, **NOM** **ACC**. Its NOMINATIVE place will be filled by the one NOMINATIVE argument, **ngayi**. Its ACCUSATIVE place could be filled by either the [+N+V] **waka-nguru-ku**, or by [+N-Y] **manyakayi**. It seems most reasonable to make **manyakayi** the evaluator. Then the [+N+V] construction can be a predicate controlled by **manyakayi**. **Waka-nguru-ku** is a one-place predicate and the ACCUSATIVE marking indicates that its one argument is bound to an ACCUSATIVE argument place - in this case the ACCUSATIVE place of **kurikawarni-ku**, namely **ngajutharantu-ku** **manyakayi**.

Now, finally to the complement sentence mentioned earlier:

(4b) ngunbu ngaju wangka-nha nhula-ku wantharru-ku
He told me to put (it) there

If we merge **nhula-ku** and **wantharruku** to get

```
[ [nhula-ku] +N+N] +N+N +ACC
here-ACC
```

we can then interpret **ngaju** as the ACCUSATIVE argument of **wangka-nha**, and **ngunbu** as the NOMINATIVE. **Nhulaku wantharruku** is then a complement, containing a three-place predicate **wantharruku**: **NOM** **ACC** **LOC**. The ACCUSATIVE marking tells us that the controller of the NOMINATIVE position is an
ACCUSATIVE argument position; in this case the ACCUSATIVE argument position must be that of *waneka-nha*, which is filled by *ngaju*. The LOCATIVE position of *wantharruku* is evaluated by the only available LOCATIVE, *ngula*. The ACCUSATIVE position of *wantharruku* is to be understood by some third person singular.

Now, had *ngaju* and *nhula-ku* and *wantharru-ku* merged to form a new expression, either this expression would have undergone Case-raise:

\[
\left[ \begin{array}{c}
-ngaju
\quad+nv

+ bac

+acc

\end{array} \right] +nv

+acc

\]

In this case *ngaju* being without CASE would have had to be interpreted as a predicate. The controller of the coindexed *wantharruku* would be the ACCUSATIVE argument position of *kurlkawarninha*, which would have had to be an understood third person. The interpretation would have been very confused.

Or the expression could have failed to undergo Case-raise

\[
\left[ \begin{array}{c}
-ngaju
\quad+nv

+ bac

+acc

\end{array} \right] +nv

+ acc

\]

But in this case we could not have found a controller for *wantharruku* in the next clause up, since the whole expression is not marked for CASE. With a lot of difficulty one might be able to salvage an interpretation.
2.4. The Scrambling Alternative

Suppose Kyarumaa is not treated as a V* language. Then, first some kind of underlying order must be discovered, perhaps on the basis of preferred word-orders. Then a scrambling rule will be needed, one of great power that moves any part of any expression within a +X,-Y, +X,+Y, -X,+Y expression.

But where this rule will operate is another problem. Scrambling rules have usually been thought of as stylistic rules, operating on the Phonetic Representation side of grammar. But, in Kyarumaa it is clear that the scrambling rule will have to operate in Logical Form, because word-order position is essential in the interpretation of questions (see 1.5.1). An initial question word is interpreted as a direct question; elsewhere, it is interpreted either as an indefinite pronoun, or as an indirect question. Therefore scrambling will have to occur before question interpretation, which is a rule of Logical Form. But it has to occur after another rule operating to build Logical Form. Therefore it has to be in Logical Form.

This rule is R5(p.49) which interprets missing arguments as either having a discourse referent or as having a third person singular. Now, serial verbs, in order to be interpreted as such, must have the same subject. And clearly, the object of one can precede the other. This gives the effect of scrambling across two tensed sentences. Now, take a sentence like:
(72)  nhala-yi ngunhu karri-ku kampa-iku
that-LOC that+NOM stand-PRES burn-PRES

That is he standing there and burning?

By the non-overt argument interpretation rule, karri-ku and kampa-iku are interpreted as having the same Subject, ngunhu. But suppose it had been given a non-coreferential reading by that same rule: "That is he standing and I burn?" for instance. In this case nhala-yi would not have been able to evaluate the ACCUSATIVE argument position of kampa-iku. But these two readings, the one with coreferential and the other with noncoreferential subject, belong to the same string. There is no way to tell them apart before the operation of this rule. Therefore scrambling will have to apply after the rule of non-overt subject interpretation.

Further, it will have to be sensitive to CASE-marking. Scrambling can only move elements of CASE-marked \([X_{\text{NOM}}+V]\) expressions; it cannot move elements of NOMINATIVE-controlled \([X_{\text{NOM}}+V]\) expressions. [see 1.4.3 and 1.4.4]

The crucial point in this discussion is that, since Ngurli na can be described by rules of labelling and interpretation which operate on surface structure, there appears to be no necessity for postulating an underlying order (for which there is no good evidence) and then having that order perturbed by a scrambling rule (which will be a rule of great power and complexity).
3. Case Functions

CASE has four uses in Kgarluma.

First, it indicates that a given argument can evaluate a given argument position of a predicate. This is the major function of the grammatical cases.

Second, it can be used to create a two-place predicate, and simultaneously show that the nominal expression bearing that CASE evaluates one argument of the predicate. Thus an expression like puriya-karti "sea-ALLATIVE" is in fact a

\text{Predicate:} \ x \ \text{TOWARDS} \ y; \ y \ is \ puriya\ \ x \ is \ a \ free \ argument

This predicate-creating use is the main function of the semantic cases.

Third, CASE is used to indicate control. If the Subject/NOMINATIVE argument, \( A_1 \), of a Predicate \( P_1 \) is not overt, and is bound to an argument position, \( A_2 \), of another Predicate \( P_2 \), then \( P_1 \) must be marked with the same CASE as \( A_2 \). Thus, \( A_2 \) controls the \( A_1 \) position of \( P_1 \).

Fourth, CASE indicates Concord. In its simplest instance, concord is expressed by former - all elements of a \([x,-y]\) or \([x,+y]\) expression marked overtly for CASE must bear that CASE.

I shall also argue that concord represents a qualifier-head relation with respect to body-part and adposition syntax.

I shall discuss each of these functions and their associated problems.
3.1 Grammatical Cases

The grammatical cases are used to indicate that a certain nominal expression evaluates a given argument position of a predicate. This argument position represents a thematic role inherent in the meaning of the predicate. Now, there are many thematic roles, but, in Ngarluma, only three grammatical cases, NOMINATIVE, ACCUSATIVE and LOCATIVE. Each of these cases may stand for a number of different thematic roles, depending on the predicate. Thus in Ngarluma, NOMINATIVE can represent "Experiencer" (nhaku "see")

"Agent" (thalku "hit")

"Theme" (waka "go")

And, after the operation of the lexical rule of Passive, it can represent semantic roles played by the ACCUSATIVE in Active sentences, such as "victim" (thalku-ngali "be hit") and "Cognitive Object" (nhaku-ngali "be seen"), and many others. ACCUSATIVE can represent, as well as the ones just given,

"Transferred Object" (yungku "give")

"Recipient" (yungku "give")

"Goal" (tharrpa "enter")

"Object" (yarni-ma "make")

LOCATIVE has two different uses as a grammatical case; it is used first as the locus or goal for such verbs as tharrpa "enter" and wantharr "put", and second as the "Agent" (displaced
NOMINATIVE) in Passive sentences. In the second instance it can probably be associated with all the roles that NOMINATIVE can be associated with in a NOMINATIVE-ACCUSATIVE sentence. In the first, it basically only is associated with the role of "Goal" and closely related roles, perhaps. Why not say that it is not an inherent argument of the Predicate Argument Structure but rather a semantic case creating a predicate? The reason in the case of wantharr "put" is that if the LOCATIVE did create a new predicate, as semantic cases do, then it would have a free argument: (x put y) z AT x

However, y and z are always going to be the same.

Now, as we shall see later, if a LOCATIVE expression is controlled by the ACCUSATIVE argument position of a predicate, then that LOCATIVE expression receives ACCUSATIVE, indicating that the free position x of the LOCATIVE position is in fact bound to the ACCUSATIVE position of another predicate.

But in the many cases of wantharr + LOCATIVE expression, there is no example of that LOCATIVE expression having an extra ACCUSATIVE marking. I shall assume that this is because the LOCATIVE expression is actually part of the complex predicate wantharr. wantharr will consist of two predicates:

x MOVE y & y BE-AT x.

So, wantharr will be a three-place predicate, one of whose arguments is semantically linked to LOCATIVE.

As for tharron, either ACCUSATIVE or LOCATIVE can represent its
GOAL. If a meaning difference is found between the two, then we shall have to set up two different predicate argument structures, one with LOCATIVE semantically linked, and the other with no semantic linking specified, in which case the remaining argument will automatically be linked to ACCUSATIVE. If no meaning difference is found, then I think we can say simply that the GOAL can optionally be semantically linked to LOCATIVE. If it is not so linked then it will automatically get ACCUSATIVE.

3.1.1 CASE assignment.

Now, the next question is the assignment of CASE to arguments of Predicates. The rules that do this I shall call, following Carter, Hale and Ostler, Linking Rules. There are two types of linking rule, grammatical and semantic. Semantic linking rules, I assume following Ostler,

"associate with a given formal case a specific set of functional roles which it can signify." (p.122)

Semantic linking will become more useful when we discuss semantic cases. It is needed for the linking of the Goal in the verb wantharr "put." I assume that Goal of motion is a thematic role with which LOCATIVE is associated. Therefore, semantic linking rules will link the thematic role of Goal of motion, which is associated with one argument place of the verb wantharr, with LOCATIVE.

There are certain thematic roles whose case-linking may vary, depending on lexical rules operating on predicate argument
structures, and sometimes in the composition of thematic roles in the predicate. Thus the role of Experiencee can be associated with NOMINATIVE or LOCATIVE, depending on whether the verb has the lexical rule associated with PASSIVE or not.

And, if Ngarluma turns out to have a verb like receive as well as give, then the reversal of CASE from Source (Giver) to Goal (Receiver) would have to be accounted for by grammatical linking. I shall not go into this here.

In Ngarluma, the grammatical linking of the argument of a one-place predicate is simple — it must be linked to NOMINATIVE case, no matter what thematic role is represented by the single argument, since every predicate has an argument linked to NOMINATIVE.

The problem comes with two and three-place predicates. How do we determine which thematic role is to be linked with NOMINATIVE? Once this is found, grammatical linking will assign the other roles ACCUSATIVE, (unless semantic linking has preempted a role and assigned it, say, LOCATIVE).

Now, since every predicate has a NOMINATIVE, and since those NOMINATIVE argument are for all intents equivalent, to the grammatical relation "subject", the problem boils down to finding the subject. I will briefly discuss several proposals.

Relational Grammar proposes that grammatical relations are defined on the basis of thematic relations, and that subject would normally correspond to Agent, and Object to Patient. This
of course still leaves unexplained how non-agents get to be subjects.

Hale, following Carter, suggested, using Warlpiri as an example, that verbs could be broken into combinations of simple predicates, and the left and right arguments of these predicates would be linked to CASES. He took as primitive predicates GO BE STATE CAUSE LET and G-RELATION (basically predicate created by Semantic Case). Using these, in Agarlu, we could define EXERCITIVE to be the left argument of these predicates, when they are not embedded, and the remainder, unless expressly stipulated, would be LOCALITIVE.

Ostler accepted the decomposition of verbs, but argued that rather than use left and right argument, it would be more profitable to use thematic roles for argument positions. In this way he argued that one could explain apparent violations of left right argument linking. (Ostler pp169-2) He argues that inverse predicates, such as "Ken robbed Jack of his profits", can only be handled arbitrarily by Carter, whereas Case Linking theory is in a better position to handle them.

Now, to determine grammatical case linking, Ostler proposes two hierarchies. The first is a universal hierarchy of Thematic Roles (actually two hierarchies - since the hierarchies for actional and relational predicates differ). The second is a language-particular hierarchy of CASE. The highest thematic role in any given sentence is linked with the highest CASE, the next highest thematic role with the next highest CASE, and
so on down the line.
The grammatical relation of subject would be defined as the highest CASE-role linking in a given sentence. However, Ostler's system requires that we identify for any sentence the Theme, Goal, Source and Path if present, so that CASE may be linked with them. Further, he says it is necessary to stipulate:

"... the role associated with the object NP of a transitive verb, and (in marked items) of the role associated with the surface subject" (p.103)

But these are exactly the role-assignments that we need to know in Ngarlusa in order to assign CASE. There is no elaborate CASE hierarchy in Ngarlusa - NOMINATIVE else ACCUSATIVE is enough.

Fale has suggested that it is usually possible to discover the "most active participant" associated with a Predicate, and that, only if this is impossible would one need to resort to a hierarchy of thematic roles. (It would probably be the relational predicate hierarchy, since in an Actional predicate the most active participant should be readily discoverable.

There have been other suggestions - Ostler suggests that the highest thematic role in a sentence is that to which the predicate refers (although he acknowledges the difficulty of making this more precise) (Ostler p.313). Hierzbiecka argues that the category consisting of agents, bearers of qualities and undergoers of processes forms a natural semantic category
which she labels \textit{independent entities}, defining it as follows:

"something can be said about X
not because something can be said about anything else"
\cite{Syntax vs Semantics p.126}

This is essentially the same idea - that the Subject is the category of which something is predicated.

Baron has suggested that the prototypical subject is the Agent in an Agent-Patient sentence (vide relational grammar, and Hale's notion of the most active participant), and that this extends to other thematic roles, such as in English to the Experiencer in perception verbs. As I understand it, there is usually a structural position or CASE, or some marking for a Subject, and any language may demand that that structural position or that CASE or whatever be present in most sentences. Children when learning to speak first identify Agents as having the grammatical relation of Subject, and then, by extension, take other thematic roles realized with the same CASE or structural position or whatever to be Subjects also.

I shall assume that it is possible in Ngarluma to discover what is the "independent entity"/"highest thematic role"/"most active participant"/Subject for any given verb. This is then linked with ACCUSATIVE, unless a lexical rule such as Passive intervenes. The remaining thematic roles are then linked with ACCUSATIVE.
3.2 Semantic Cases

The semantic cases in Ngari Lama include ALLATIVE, ABLATIVE, INSTRUMENTAL, HAVING, CAUSAL, PRIVATIVE, and also two cases which function as grammatical cases as well, ACCUSATIVE and LOCATIVE. Each of these has a specific set of thematic roles associated with it. Thus ALLATIVE is associated with Goal and ABLATIVE with Source. LOCATIVE has several thematic roles associated with it: Place, Instrument, Comitative.

But which thematic role is picked in any given sentence will depend both on the thematic roles entailed by the sentence as a whole (e.g., an actional predicate entails time and place) and on the meaning of the nominal expression which bears the semantic case. Thus, if the nominal expression refers to a place, and the main predicate is Actional, then LOCATIVE will indicate that that Nominal expression most likely has a thematic role of Place:

\[ \begin{aligned} &120 \text{ (23/24) pinsa-liku jurlu mayaka kunjimu-la man(j)arta-la} \\
& \text{ drink-RES all+NOX man+NOX one-LOC trough-LOC} \\
& \text{ They all drink at one trough} \end{aligned} \]

However, if the nominal expression is a person, then it is more likely to have a Comitative role:

\[ \begin{aligned} &121 \text{ (56) ngayi waka-yi nyintala} \\
& \text{ I+NOX walk=FUT you+LOC} \\
& \text{ I'll walk with you} \end{aligned} \]

A semantic case, as I said earlier, creates a Predicate of the form \( x \; \text{WITH} \; y \; \text{(INSTRUMENTAL)} \; x \; \text{AT} \; y \; \text{(LOCATIVE)} \; x \; \text{TOWARD} \; y \; \text{(ALLAT).} \]
and so on. Simultaneously, semantic linking marks the y position as having some thematic role associated with the semantic case. The x position is not linked by semantic linking; it is usually bound to an argument position in some other verb. However, it could act as the main predicate in a nominal sentence, in which case grammatical linking would assign NOMINATIVE to the x position.

3.3 Lexical Rules

Grammatical linking can be altered by lexical rules. These are rules associated with particular affixes in the lexicon. The ones I shall examine are the Passive affix /-(n)ngali/, the Passive Participle /mrakurla/, the Imperative suffix /-(n)ma/ and the Causative /-jirrima/. The lexical rules are part of the lexical entry for each of these categories. They can do two things: add a thematic role (as in the case of /-jirrima/); change the linking rules. The fact that the Passive Participle also causes a change of category from $[+V, -N]$ to $[+V, N]$ is not due to a lexical rule of the type we are discussing, but/the same process that changes the category from $[+N]$ to $[+V]$ when a verbalizing derivational suffix is added.

What do these lexical rules operate on? Now, Ostler notes (p. 407) that

"...some linking at least is effected before the transition from active to passive (...) is made"

That is, that in Sanskrit some thematic roles have to be assigned CASE before the lexical rule of passive operates, because otherwise
the existence of certain 

CASES linked with certain grammatical 
roles cannot be explained. In other words, although he claims 
to be linking thematic roles directly with surface CASE, in 
fact, he is allowing some intermediate level—the level at 
which some CASES are assigned prior to the operation of lexical 
rules.

In *Akurume*, the lexical rules show that it is necessary to 
do all grammatical linking of thematic roles with CASE (or, 
possibly, with grammatical relations) before the operation of 
lexical rules, because these lexical rules are stated with most 
generality as rules that operate on deep Case (or conceivably 
grmmatical relations).

Thus, several lexical rules operate on ACCUSATIVE marked nominals. 
But ACCUSATIVE can mark two thematic roles in one predicate 
(most probably Theme and Goal), and also form semantic/predicates 
of Benefactive and Purposive. We have no way of discerning from 
the structure or the morphology which is which.

Lexical rules, which operate on predicate argument structures, 
do distinguish between predicate-associated thematic roles 
and semantic case predicates bearing ACCUSATIVE. The next 
question is, do any lexical rules distinguish between two 
thematic roles filling ACCUSATIVE-marked argument positions?

The answer is probably yes. I shall briefly outline the
relevant rules.

3.3.1 Passive

The first is PASSIVE: -(u)ngali suffixed to transitive verbs then a verb with INDEFINITE and ACCUSATIVE arguments is passivized, one ACCUSATIVE becomes NOMINATIVE. The INDEFINITE gets LOCATIVE case-marking:

**(53)** nhala-yi ngunhu karlpa-1ku
what-ACC that+NOM carry-PRES

What's he carrying?

**(53)** nhala ngulia karlpa-nagali-ku
what+NOM that+LOC carry-PASS-PRES

What's getting carried by him?

So, nhala-yi "what-ACC" is equivalent to nhala "what+NOM", and ngunhu "that+NOM" to ngulia "that+LOC"

Now it appears that Benefactive, which is marked with ACCUSATIVE, intuitively, but which is not an inherent argument of a verb cannot be passivized. According to Nash ("Is Ngarluma split-ergative?"

Addendum 2) the following sentence is probably out:

**124**

*ngayi yarnima-ngali-nha wirrpa-yi palu-la
I+NOM make-PASSIVE-PAST boomerang-ACC he-LOC

I was made a boomerang by him

---

* In both **X** and **Y** the Passive suffix can also appear on nominals to create an inchoative - in **X** (p.162) an inchoative on "non-body states". I am taking this to be homophonous with the PASSIVE described above, and will not attempt to join them. A Ngarluma example:

**(352)** palu wanta-ngali-ku
he mad-PASSIVE-PRES

He's getting mad
However, if the "direct object" is passivized the sentence is good:

(54) wirrpa ngathala yarnima-ngali-nha nyinkutharntu boomerang-NOM 1+LOC make-PASS-PAST you-POS+3Sg

Your boomerang was made by me.

Further, ACCUSATIVE can also mark a goal that is not inherent in the predicate argument structure of the verb. Thus Hale notes in some exceptions he made from his fieldnotes that the sentence 127 is bad, although its unpassivized counterpart 126 is fine, and so is a sentence in which the predicate argument structure ACCUSATIVE is passivized:

125

(51) anyula-esa uga-ja airlimirli
shove-3SG 1+ACC book

Shove the book over to me!

127

* nganala nyinta anyula-ngali-nha airlimirli-ku
who+LOC you+NOM shove-PASS-PAST book-ACC

By whom were you shoved the book?

128

(51) nganala nyinta anyula-ngali-nha
who+LOC you+NOM shove-PASS-PAST

Who were you shoved by?

(unfortunately we do not have an example of a passive of the ditransitive verb shove).

So, PASSIVATION does not operate on ACCUSATIVES that are not in the predicate argument structure of the passivized verb.

Now let us turn to the question of what ACCUSATIVES within the predicate argument structure it can passivize. It seems that
for a transitive verb any ACCUSATIVE argument, whatever its
thematic role, can be passivised. Take for example the
verb nyirra "to rub". In both Y. and Ng. it has two different
predicate argument structures, usually indicated in Ng. by
a change in conjugation. The structures are:

(transitive-type conj.) place rubbed: ACC
person
rubbing medium: INSTRUMENT

(120) nyirra-nma ngaju martarr-wari
rub-IMP I+ACC ochre-"INST"
Rub me with ochre

(intransitive-type conj.) place rubbed: bound to EFL
person
rubbing medium: ACCUSATIVE

(34) nyirra-ma ngunthal martarr
rub-IMPER that-NOM ochre-NOM
Rub yourself with ochre

(Untunately, the expected conjugation changes do not always
appear).

Now the rubbing medium can be passivised:

(7/11) kura wangka-ngali-ku, kura pipi-wila mirtamirra
inner back call-PASS-PRES, i.e. milk-like white

nyirra-ngali-ku
rub-PASS-PRES

It is called "kura"(inner bark), it is white like milk,
it is rubbed

(7/19) kura milki-ka-ngali-ku, nyirra-ngali-ku
inner bark milk-Tvbj-PASS-ACC rub-PASS-PRES

The inner bark is made into "milk" and rubbed
Unfortunately we don't have any similar examples of pasives of the first kind with nyirra. However thurnta which also means "rub", can have "place/person rubbed" passivized:

(53) ngayi nupili nyintala thurnta-angali-yi cartarr-weri
INSTR want you-LOC rub-PASS-PAT ocher-HAVE

I want to be rubbed by you and be ochered."

(although unfortunately I have no examples of thurnta with an ACCUSATIVE rubbing medium.)

I imagine that similar examples are also good for nyirra when it has an ACCUSATIVE place/person rubbed.

Now, assuming that any ACCUSATIVE in a transitive predicate can be passivized, no matter what its thematic role, let us turn to ditransitives. Here again, vital evidence is missing. It is clear that coals can be passivized (in grammatical relation terms the indirect object) as the following sentence shows.

---

1 This sentence is a problem. It looks as if cartarr-weri should be an instrument. But in that case, why isn't it marked LOCATIVE - the CASE of its controller (see 3.5.1.2)? I assume that in fact this is the HAVE meaning of -weti and that it is predicated of the NOMINATIVE ngayi, and means something like "I want to be ochered-up, to be painted up by you."

2 The following sentence (with its active counterpart) might at first glance be interpreted as having a Theme; varinta passivized and a souurrence left in the ACCUSATIVE case; but in fact the ACCUSATIVE varinta is not an argument of the verb, but an ethically dative, I believe. At any rate it is not clear evidence that "direct objects" can be passivized.

(52) marinta ngaju muja-ngali-mha ngula mayaka-1a(sic)
money+NON I+ACC steal-PASS-PAST that+LOC MAN-LOC

My money was stolen by that man (Money was stolen from me ...)
I got given meat by that man

But there is no hard evidence that Themes/Direct Objects can be passivized. In fact in Y. which has a very similar PASSIVE, Direct objects cannot be passivized:

NOMINATIVE (Subject) → INSTRUMENTAL

OBJECTIVE (Object) → NOMINATIVE

Transitive Verb + nguli

Forced gives the following pair (p. 30i) to show the difference between passivizing a Goal and passivizing a Theme:

125 (p. 30i) ngayi yungku-ngali-nha murla-yi nguartalu
PASS-PASS-PAST meat-LOC man-LOC

I got given meat by a man

136 *murla yungku-ngali-nha ngayu nguartalu
meat-LOC give-PASS-PAST man-INST

Meat not given to me by a man

Now, if Nyarilma does allow Direct Objects/Themes to passivize, then we could state PASSIVE as a lexical rule which picks any

ACCUSATIVE linked thematic role in the predicate argument structure of a verb, and links it instead to NOMINATIVE.

The old NOMINATIVE is linked with LOCATIVE.

[ nguli ]

lexical rule: NOMINATIVE → LOCATIVE

ACCUSATIVE → NOMINATIVE

Note that this only applies to one ACCUSATIVE-linked thematic role,
If however the Indirect object/goal only can passivate then we must distinguish in the predicate argument structure between the two ACCUSATIVES. We could make the rules dependent on grammatical relations, rather than on deep CASES. We could also say that a special rule assigns Direct Object to the Goal in ditransitive verbs, rather than to the Theme (which gets ACCUSATIVE because ACCUSATIVE is the elsewhere CASE). We could then say that Passive operates on Direct Objects and converts them to Subjects. (Wantsch has suggested this approach). Or we could arbitrarily mark the Goal-linked ACCUSATIVE in ditransitives as the only one capable of undergoing PASSIVE, and say that PASSIVE applies to a marked ACCUSATIVE if there is one, and if there is not, to any ACCUSATIVE.

2.2.2. Passive Participle

A rule similar to the PASSIVE is associated with the Passive Participle -murja

\[ 137 \] (68) ngunhu warnta nyintala kartatha-ngali-nguru\[\]//
that+NOM tree+NOM you+LOC cut-PASS-ACT+PART

pungka-rna-pa (sic)
fall-PAST-CLITIC

That tree, which was cut by you, fell

\[ 68 \]

That tree, which was cut by you a fell
In 137 kartatha "to chop" has been passivized. The new NOMINATIVE position is controlled by warna "tree", and the old NOMINATIVE position has been linked with the LOCATIVE. In 138 there is no morphological mark of Passive, no /-(n)gali/. But exactly the same changes in linking have taken place. Can a Passive Participle be a Passive of either of two ACCUSATIVE arguments of a three-place predicate? Take the verb wangka "to speak": the person spoken to and the thing spoken about are both ACCUSATIVE arguments.

139 (31/5) thalu-ma-rnakurla waka-yi watharri-yi wakka-yi magic-TRVBD-PASS+PART go-FUT look-FUT go-FUT

watharri-yi wanji-ha ngurra ngunhu wangka-rnakurla
look-FUT which-CHGNAMES place+NOM that+NOM speak-PASS+PART

After the Thalu is made, (he) (the Thalu?) will go to see which is the land which he has been told about has been spoken about

The sentence is ambiguous as to whether the person or place is the controller.

140 (276) ngawarrari-ku-yini wangka-nhakurla nhala-pura-ku forget-PRES="till" speak-PASS+PART what-PLUR-ACC

Having been told, he forgets everything

In this sentence the person is the controller, because, had the "thing spoken about", nhalapuraku been the controller, the participle should have been marked ACCUSATIVE to agree with it.

I have found no examples where the thing spoken about is the NOMINATIVE/subject of a Passive participle, and no examples of a Theme/Object being passivized by a participle. I incline to believe that probably the lexical rule associated with Passive Participles does not differ from that associated with Passives.
2.3.2. Imperative

The third lexical rule to be discussed clearly operates on both "direct" and "indirect object" ACCUSATIVES. This is the Imperative rule. The positive Imperative is formed by suffixed -(n)ma/ to the verb stem. The INTRANSITIVE subject (which is second person) may or may not be overtly expressed. But arguments of the predicate argument structure normally linked with the ACCUSATIVE get no case-marking at all, unless they are filled by a personal pronoun, in which case the pronoun gets normal ACCUSATIVE marking (demonstrative pronouns act like ordinary nouns in this instance, not like pronouns).

145 (145) jitharri-ma ngaju wait for me wait-IMPER I+ACC

146 (26) kalhu-ma parnumpangu kuringkal sing out for him sing out-IMPER he+ACC thus

147 (266) jayinyma-mma ngunhu ngamari ask him for tobacco ask-IMPER that tobacco

148 (319) yungku-ma jurlu pirutipirnti ngunthal mirlimirli give-IMPER all separate that paper

149 wirri-puntharri cards

Give all individually cards (i.e. deal)

151 (194) thaya-ka-mma thaya ngunhu open that door mouth-THBL-IMPER mouth that door

151 and 152 show that pronouns retain ACCUSATIVE. 153 shows that demonstratives lose it. 154 shows a single ACCUSATIVE argument losing case-marking. 153 and 154 show that in a three-place
predicate both ACCUSATIVES lose case-marking. However, it turns out that only ACCUSATIVES which are actually in the predicate argument structure of a verb may lose case-marking - semantic case ACCUSATIVES such as Purposive remain the same:

(53/10) thaya-warni-ma mungkulyi-ku
mouth-become-IMPER heart's blood-ACC

Open your mouth for heart's blood.

The affix /-warni/ on the verb usually forms intransitives with an inchoative meaning; it usually is not associated with an ACCUSATIVE in the predicate argument structure. The ACCUSATIVE here is a semantic case indicating Purpose. As such it does not lose its ACCUSATIVE marking. We assume that the loss of ACCUSATIVE inflection is an operation on the predicate argument structure of a verb, not just some rule of form obliterating all ACCUSATIVES in Imperative sentences. A special stipulation will have to be made to prevent pronouns from losing their ACCUSATIVE marking. The lexical rule will have to operate on CASE, rather than thematic roles, because it is simpler to state.

Note that this rule, unlike the Passive and Passive Participle rules, does not change linking. The NOMINATIVE subject of Imperatives is probably obligatorily second person. This rule simply realizes ACCUSATIVE case marking, on ACCUSATIVES in the predicate argument structure of verbs as $\emptyset$. Notice however that this $\emptyset$ realization extends to control - a complement bound by the ACCUSATIVE argument of an Imperative is also marked $\emptyset$.

(157) wangka-ma nguunu wantha-ru nguula
tell-IMPER that put-SUB there+LOC

tell him to put it there.
We will assume that interpretation of control will work as though $f$ were an allomorph of the ACCUSATIVE appearing only when the verb is marked IMPERATIVE.

In the lexicon the suffix $/{-}(n)va$/ IMPERATIVE will have associated with it the following lexical rule:

ACCUSATIVE case-marking is realized by $f$ allomorph condition: if not a pronoun

Needless to say, this rule operates only on the predicate argument structure of the verb to which $/{-}(n)va$/ is attached. Therefore Benefactive and Purposive ACCUSATIVES will not lose their ACCUSATIVE marking.

These lexical rules show that it is necessary to postulate an intermediate stage of case-linking on which lexical rules can operate, so that these rules may be stated with most generality. This intermediate level could be equivalent to the grammatical relations level.
(3.4) **Non-overt arguments**

Apparently any argument of a predicate may be non-overt. Thus:

**NOMINATIVE**

148 (6/3) ngarti-li-1pa paja-rna purulk-yi
again-CLIT chew-PAST quid-ACC

Again (I) chewed the quid of tobacco

**ACCUSATIVE**

149 (7/22) ...ngangka wantha-1ku manjarn-ta-ku ngarri-yi-ku
mother+Nom put-PRES bed-LOC-ACC lie-SUB-ACC

the mother puts (it) on a bed to lie

**ACCUSATIVE-ACCUSATIVE**

150 (7/15) "padul"-ku-pa winya-ka-1ku, yungku-ku pinja-ru-ku
bottle-ACC-CLIT full-TVbl-PRES, give-PRES drink-SUB-ACC

(They) fill the bottle, (they) give (it) (to it) to drink

**LOCATIVE**

151 (20/3b) kunjirri-ku purlura, ngarti-lyi kunjirri-ku wantha- "rna"
one-ACC first, again-CLIT one-ACC put-PAST

one first and then the other (they) put (down)

So, a non-overt argument will either be understood from discourse, as in 148, where the text is concerned with actions of the speaker, or it will be understood as some third singular. Thus in a text on hunting, the third sentence is:

152 (41/3) wakurra thukutha-rna "tharnka-murndi",
crow spear-PAST "through"

A crow speared (one)

There is no referent from the discourse, but the missing object is interpreted as third singular, and because the text is about
hunting, it is interpreted as a kangaroo, not a person.

Notice that there is no bar against switching understood references within conjoined sentences:

153 (18/?) maru-warni-patharn purtungu-ku kurlanga-lpatharn
    flat-become- Habit chest-ACC stone-Habit

nyurnti-warni-ku
dead-become-PRES

(echidna) would become flat, (they) would stone (its) chest,
(it) dies.

So the Completeness Condition, which Bresnan postulates for English (class notes 1979) to block sentences in which an obligatory argument of some predicate fails to appear, cannot in Ngarluma be a constraint on surface forms, but rather on interpretation. A well-formed sentence must have all the obligatory arguments of the predicate argument structures interpreted.

3.3.1 Weather verbs.

In Ngarluma there apparently no "subjectless" sentences. The usual candidates for these — diurnal and weather words — always have either an overt subject, or, so it seems, an understood subject of the same type. Thus:

154 (26/6) ngurra ngunhu kana-"ili-ili\pisq"-nha
    land+NOW that+NOW light-Vbl Q-'Past

the land got light

155 (17/4) ... muthu-warni-ku ngurra
    cold-become-PRES land

the land gets cold

156 (300) yungu kaipa-ku
    rain rise-PRES

It gets cloudy

157 (400) yungu wangka-ku
    rain speak-PRES

It's thundering
The fact that there are apparently no dummy subjects, like the 'it' of "it's raining" in English, is probably a consequence of being a yes language. There is not the difference between grammatical subjects/objects and predicate argument structure arguments that one finds, say, in English. Bouchard proposes, following Brosnan, that:

"...not only may a constituent be the grammatical object of a verb without being its logical object, and thus to to be the grammatical object of a verb while being the argument of another verb, but that a constituent may also have no grammatical function at all while having a logical function." (p.23)

In Ngarluma, as there is no underlying word-order, there are no structural case positions to be filled, and there is only one sense in which a noun phrase is the "object" of a verb - namely that it evaluates an accusative argument slot of that verb.

3.4.2 Reflexive and Reciprocal

Returning to non-overt arguments, there are two other ways in which an argument can be non-overt. They both depend on binding. One way is by reflexive. Reflexive can be marked on a verb by the suffix /-rri/ (also an intransitive verbaliser), and reciprocal contains the /-rri/ also: /-pinya-rri nna-rri/.

As well there is a reflexive understood in certain bodypart constructions. The second way in which an argument can be non-overt is if it is the nominative/subject of some predicate which is controlled by an argument position of another predicate. I shall discuss this in 3.5, and so for the moment will turn to the binding in reflexives, and reciprocals. Basically, these
have associated with them the lexical rule that the NOMINATIVE position binds the ACCUSATIVE position if there is one, i.e., that the ACCUSATIVE position is to be evaluated by the same argument that evaluates the NOMINATIVE position. Thus, take the verb nyirra: "to rub" which has as one predicate argument structure NOMINATIVE ACCUSATIVE:

159 (22/2) nyirra-lku martarr-wari rub-PRES ochre-INST

(They) rub (him) with ochre

160 (7/7) ngangka nyirra-rri-yi-pa...
mother+NOM rub-REFL-FUT-CLITIC

The mother will rub herself

In 160 the ACCUSATIVE argument of nyirra is bound to the NOMINATIVE, ngangka. Thus, by binding, ngangka has two thematic roles, the Agent, and the Patient. Similarly, the verb kartaka "to poke, pierce, stab" has NOMINATIVE ACCUSATIVE

161 (27/22) "Pirdu-pulbu" kartaka-rna nhurna pertungu-ku-"?undu" NAME NON stab-PAST that-ACC chest-ACC-?through?

Pirdupulbu stabbed that one right in the chest

162 (9/5) kartaka-nmarri-uha ...
stab-RECIPI-PAST

(we) stabbed each other

In 162 the ACCUSATIVE argument of kartaka is bound to the NOMINATIVE, which is interpreted as referring to a previously mentioned referent: we exclusive. Notice how this shows that in reflexive and reciprocal sentences the bound argument is not bound to an actual nominal expression, but to the NOMINATIVE
argument position of a predicate.

3.5 Control

Reflexive and Reciprocal indicate that, within one predicate argument structure, one argument position binds another argument position. Control is the binding of an argument position in one predicate argument structure (always the NOMINATIVE argument position) by an argument position in another predicate. Participles, complements, nominal predicates and predicates created by semantic cases may all have controlled NOMINATIVE positions. Probably any type of predicate can have an argument position bind another argument position.

3.5.1 Control of Semantic Case predicates

As I have already said, semantic cases create two-place predicates: one argument, the Subject/NOMINATIVE, is free. If the semantic case predicate is the main predicate in a nominal sentence, this free argument will be evaluated by a NOMINATIVE marked phrase:

(20/72) "muru nyinku"
     this+Nom you+Acc

Here the NOMINATIVE muru evaluates the free argument of the predicate nyinku "X BE FOR you"

If the semantic case predicate is not the main predicate, then, if it has no extra case-marking it will be bound either to the Subject/NOMINATIVE position of the main predicate, or to the expression as a whole. If the semantic case does
bear an extra CASE-mark, then its free argument will be controlled by an argument-position or argument with the same CASE.

3.5.1.1 Control of unmarked semantic case predicates

Let us look first at semantic case predicates without extra CASE-marking. How can we tell whether it is the Subject/NOMINATIVE of the main predicate or whether it is the expression as a whole that occupies the free place of the semantic case predicate? PASSIVE should provide a test — since the Subject/NOMINATIVE of the main predicate has been changed by lexical rule to a LOCATIVE, we would expect that all semantic case predicates controlled by that old Subject/NOMINATIVE should now receive LOCATIVE case-marking in addition to their normal marking. Similarly, all semantic case predicates controlled by the expression as a whole should remain unmarked. What in fact happens? We have examples of semantic predicates remaining unmarked in passive sentences:

164 (57) janka-naa ugunha puluku waruta-ka
tie-IMP that+VOC bullock+VOC tree-LOC
Tie that bullock to a tree

165 (57) puluku janka-ngali-nna waruta-ka
bullock+VOC tie-PASS-PAST tree-LOC
The bullock has been tied to a tree

Unfortunately we do not have examples of semantic predicates adding an extra LOCATIVE marking. In the case of semantic predicates that are formed with LOCATIVE, this may be because there is a restriction against having two LOCATIVES, just as there is a restriction against having two ACCUSATIVES...
and so the form **CAUSATIVE-ACCUSATIVE** is created (see Concord). However, I found no examples of passive sentences where a semantic case predicate fails to get extra LOCATIVE marking, even though the meaning of the sentence leads us to believe that the semantic case predicate qualifies the LOCATIVE agent, not the expression. A typical example of a semantic case predicate modifying a subject:

19/7  ...nhula-nguru mangukuru-la-nguru jurlu ngarri-ku
    this+LOC-ACL kangaroo-LOC-ACL all+XOM lie-PRES
    mantu-ka-pa
    outside-LOC-CLIT

    all (the stuff) from inside the kangaroo lies on the outside.

Clearly the ABLATIVE expression "from this kangaroo" qualifies the NOMINATIVE "all", rather than the whole expression. And if the verb had been transitive rather than intransitive, we would have expected the ABLATIVE expression to qualify the new LOCATIVE agent "all{this stuff}" rather than the whole expression.

But even if there is a constraint against predicates being marked twice for LOCATIVE, this should not prevent other semantic predicates, such as INSTRUMENTAL, from getting extra LOCATIVE case-marking in passive sentences. In fact, however, it seems that in Passive sentences LOCATIVE is used both for INSTRUMENT and for the displaced Subject; (LOCATIVE can be used, although with less frequency, for Instrument in Active sentences). Thus, Dale's informant, Bob Charnside, when asked to passivize an Active sentence with a */-wari */Instrument that he had just used, expressed the Instrument in the new Passive sentence
with a LOCATIVE:

(66) nyinta ngurnathal-ku kartaka-ru jumpirirri-wari
you+NO: that one-ACC spear-FUT knife-INST

You'll stab that bloke (next to you) with a knife.

(66) ngunthala nyintala kartaka-ngali-yi jumpirirri-la
that+NO: you+LOC spear-PASS-FUT knife-LOC

That bloke (near you) will be stabbed by you with a knife.

And there are other examples of Instrumental in Passive sentences being expressed by LOCATIVE:

(62) ngunguru thuutha-ngali-nha- kurrjarta-la ngathala
kangaroo+NO: spear-PASS-PAST spear-LOC I+LOC

The kangaroo was speared by me with a spear.

We have however no examples of /-wari-LOC/ for the Instrument in Passive sentences. But this may well be just a gap in the data, for, in Y., which has the identical suffix /-wari/ for Instrumental and Having, and which uses a separate Instrumental /-lu &c/, for instruments and for Passive agents, there are some instances of /-wari-in /:

(100) ngayi wampi-nguli-nha
I+NO: hit-PASS-PAST

\{\begin{align*}
\text{varurta-wari-lu} & \text{ stick-INST-INST} \\
\text{varurta-u} & \text{ stick-INST}
\end{align*}\}

I was hit with a stick.
J.J.I.2. Control of Marked Semantic Case Predicates

Let us return to semantic cases which do have extra case-marking. Examples of control of a LOCATIVE by an ACCUSATIVE include the following:

171 (k9) wanji-la-ku nyinta marrparnta-ma
where-LOC-ACC you+Nom find-PAST

where did you find (it)?

172 (k9) ngayi marrparnta-ma yanthan-ta-ku thurnu-ngka-ku
I+Nom find-PAST swag-LOC-ACC under-LOC-ACC

I found (it) under the swag.

In both of these the controller of the LOCATIVE expression is the ACCUSATIVE argument place of the verb marrparnta; there is no overt expression filling this argument place. Further, note that in 172 both the nominal expression and the adposition thurnu get marked for the controller ACCUSATIVE.

The marking of ACCUSATIVE should change if the ACCUSATIVE argument position became NOMINATIVE by Passive. However, I have not yet found examples proving or disproving this in Ygarluma - but it is clear in Y.

173 (299) manguy warumarna marri marntaau
primeval-anima make-PAST mark-GenJ rock-LOC-GenJ

The primeval anima made the marks on the rocks

174 (299) manguuytyu warumangulimha marri marntaau
primeval-anima-INST. make-PASS-PAST mark rock-LOC

The marks on the rocks were made by the primeval anima.

When marri is in ACCUSATIVE (OBJECTIVE) case, the LOCATIVE expression marntaau gets marked ACCUSATIVE also. When marri becomes the NOMINATIVE by Passivization, marntaau is a plain
LOCATIVE.

The examples we have given so far are all of control by an argument of the main predicate, not of control by an argument of a predicate adjunct. Unfortunately, I have only one example, and it is not clear, because the LOCATIVE expression involved is a cardinal point which is inherently ABLATIVE, not a nominal expression with overt CASE-marking:

(29/21) "janna"-ri-nha sarunta-karti parnumapangu-karti sweep-TVbl-PAST hill-ALL he+ACC-ALL

thurta-ngka yapurarni-la, vaya-ka-rna parnumapangu wind-LOC west+ABL-LOC, fear-TVbl-PAST he+ACC

(fire) swept toward the hill toward him on the wind from the west, and frightened him

The inherent ABLATIVE yapurarni is controlled by the LOCATIVE thurta-ngka.

There are cases with PRIVATIVE /-jun/, but, as I pointed out before, PRIVATIVE could just as easily be taken as a derivational affix; in this case of course the affixation of an additional CASE-suffix would not indicate CONTROL.

(1/2) warlu paja-warni-nha nganarna-ngu maparn-jun-ta snake+XOM angry-become-PAST we+PL+EXCL-ACC magic-PAV-LOC

ngurra-ngka

camp-LOC

The snake got angry with us in our magic-less camp

Here, maparnjunta can either be merged with ngurra-ngka, or it can be predicated of ngurra-ngka and then the LOCATIVE indicates that ngurra-ngka is the controller.
3.3.2. Control of Grammatical Cases

Not only semantic cases but also NOMINATIVE predicates can be controlled. The following two examples show ACCUSATIVE argument places controlling NOMINATIVE nominal predicates:

177 (7/13) mani mirta wanyaparri-yi ngurnathal-ku palakarnithal-ku some not know-FUT that one ACC such one ACC
Some don’t know that that is how it is.

178 (20/23) wirnta-lku jinji-yi ngurna martu-yi ngarri-nha-ku cut-PRES fat-ACC that-ACC flat-ACC lie-PAST-ACC
(I) cut the fat which is lying flat

In 177 palakarnithal-ku only makes sense if it is a controlled predicate. Merged with ngurnathal-ku it is almost meaningless.
In 178 I have interpreted martu-yi as a NOMINATIVE nominal expression; its NOMINATIVE is bound to ngarri-nha-ku. The NOMINATIVE position of ngarri-nha-ku is in turn bound to the ACCUSATIVE position of wirnta-lku. However, we could have interpreted jinji-yi ngurna-yi martu-yi as a merged expression; "(I) cut the flat fat which is lying".

3.3.2.1. Control of "calling" verb objects

We might want to consider the second object of a verb like "call X Y" a controlled predicate.¹ This would explain why,

¹. N. D. M. Ostler proposes an identical analysis for "call" in Sanskrit:

Predicate N: tam acaryam pracaṅkṣate
himACC teacherACC they-call
They call him teacher (Ostler p.136)
when "call" is passivized, both X and Y become NOMINATIVE, in contrast to "give" as we saw in 135.

116) nhala-yi nyinta-kuru yinjipanti-pura wangka-ku nhurna what-ACC you-PLUR-NOM " " ePLUR call-ACC this+ACC
mara-ngka-ku
hand-LOC-ACC

Yinjipantō? do you Yinjipanti call this in my hand?

130 22/2 jurlu wamulu jurlu wangka-ngali-ku wamulu all-NOM " -NOM all:nom:call-PASSIVE-PRES" -NOM:
al are "wamulu" (stage in initiation) all are called "wamulu".

In 179 nhala-yi is predicated of nhurna. Since nhurna is ACCUSATIVE, nhala-yi is also marked ACCUSATIVE, to show that the Subject/NOMINATIVE position of nhala-yi is bound to the ACCUSATIVE nhurna. In 130 the verb wangka has been passivized. Jurlu "all" is assigned NOMINATIVE by the Passive lexical rule, wamulu is controlled by jurlu. If a predicate is not marked for CASE, then its controller has to be NOMINATIVE - hence wamulu is controlled by the NOMINATIVE jurlu.

However, I am not sure whether we really want to say that the name in "call x name y" (wamulu in 130 nhala-yi in 179 ) is a predicate. We may want to find some other explanation.

2.5.2 Control of +K+y

2.5.3.1 Complements
As I mentioned in 2.1.4 there are two types of complement: 1. those homophonous with the PAST and FUTURE tenses but meaning contemporaneous and subsequent action respectively.
2. the evitative complement.
I will first give examples of each of these being controlled by a NOMINATIVE/Subject:
contemporaneous action complement

(52) nhaiawarni-nha panya ngaunthi mirka kampa-ku
shatbcome-CONT pipe+XOM that one +XOM not light-PASS
Why don't that pipe stay alight?
[lit. becoming what, that pipe not light]

subsequent action complement

(57/1) palalyi "jaurrpa-alaa" wangka-nha mutthura-ku wantaas-rru
oncE rain-maker say-PAST rain-ACC put-SUB winter
A rain maker once said he would start the winter rain

evitative complement

(371) ngai thuwa-ngka nhaku-ngali-piji . waya-ka-rri-ku
I+NOM wife's mother-LOC see-PASS-LEST fear-TVb-TVb-PASS
I am afraid lest I be seen by my wife's mother

102 brings up an important point, although there are clearer examples. A Complement (and in some instances a participle as we shall see later) may occupy the argument position of a predicate. Predicates will have "as part of their lexical entry what kinds of predicate they can take. We may want to say that there are two predicate argument structures for, say, purli "be desirous of", one in which a \([+N,-V]\) occupies its ACCUSATIVE argument position, and one in which a \([+N,+V]\) occupies its second argument position. This may prove necessary. However, at the moment I think we can still say that there is just one predicate argument structure for purli, and either a \([+N,-V]\) or a \([+N,+V]\) expression may occupy its second argument place. We will need to add a principle to explain why, since this second argument position is linked with ACCUSATIVE, and since \([+N,+V]\)
can bear CASE), an \([N,+V]\) expression filling the second argument of a predicate like purpi cannot bear ACCUSATIVE case. E.g.

(371) mirta purpi nhaku-ru
       not want see-SUB

(I) don't want to see (her)

Had nhaku-ru been marked ACCUSATIVE, we would have been forced to interpret it as controlled by some understood ACCUSATIVE: "I don't want someone to see her".

We will therefore add a new principle of interpretation:

An expression of the form \([N,+V]\) is marked with the same CASE as its controller if it is controlled.

Notice that this does not prevent \([N,+V]\) expressions from being marked with a CASE different from that of their Subject, if that Subject evaluates and does not control the \([N,+V]\) expression.

Thus, although we have no good examples with Complements, I predict we should find some. They might take the form of a LOCATIVE predicate. Thus, just as a nominal expression is used in the following example, we might expect similar examples with \([N,+V]\) for jirrru

(13/1) ngulathal parni-nhe "jirrru"-inthere sit-PAST song-LOC
3.5.2.1.1 Control of Case-marked Complements

I will now show examples of ACCUSATIVE controlled complements:

Contemporaneous complement

\[(29/4)\] wanyaparri-nha \[\text{Huyu-yi muna-pa-ku, kanka-ni-ku hear-PAST '}-\text{ACC close-REL-ACC topos}\text{-ACC}\]
\[\text{yinti-nha-ku marrnta-ka-nguru-ku descend-CONT-ACC hill-A3L'-ACC}\]

They heard the Huyu descending down from the hill.

Simultaneous Complement

\[(390)\] ngalaka-ru-ku ngunhu nyinku wangka-nha what-TVbl-FSUB-ACC that+MOO you+ACC tell-PAST

What did he tell you to do?

Evitative Complement

\[(399)\] janka-ru watha-kutha-ku kulu-ma-ru \# ngalyi-yi tie-FUT leg-SUAL-ACC together-TVb-FUT \# neck-ACC
\[\text{wanja-rri-piji-ku slip-TVb-LEST-ACC}\]

Tie both legs (and the neck) together lest the neck slip out.

There are no examples so far of Complements being controlled by LOCATIVES or other semantic CASES, but since there is the odd example of a participle controlled by a LOCATIVE, I imagine this should hold for complement too. There is an example of a complement and its controller forming a predicate adjunct, which is quite common with the ACTIVE participle, and will be
discussed at length in the participles section. The example is:

\[ (55/13) \quad \text{vari-warni-ma ngurra, ngathala pungka-yi-la flat-become-THE ground, I+LOC fall-SUB-LOC} \]

Let the ground be cleared for my falling.

The LOCATIVE forms a semantic predicate, ngathala is the subject of pungka-yi. It is as if a LOCATIVE had been added to a Nominal expression: \[ \text{(ngayi pungka-yi) LOCATIVE} \]

The subject of the LOCATIVE predicate is the whole sentence - both ngathala and pungka-yi form the bound argument of the LOCATIVE predicate.

3.5.2.2 Participles

The two participles in Ngarluma are the Active and the Passive. We have already discussed the lexical rule associated with the Passive Participle. I shall give examples of NOMINATIVE and ACCUSATIVE controlled participles:

Active Participle: NOMINATIVE controller:

\[ (100) \quad \text{ngayi ngarlu kari-warni-ku ngaju-tharntu-ku I+NOM stomach+NOM sad-become-PRES I+ACC-POSS-ACC} \]

ngurra-yi wantha-ruru
country-ACC leave-ACT+PART

I am homesick for my country which I left
Active Participle: ACCUSATIVE controller

(330) jiyirri-nha ngaju thalku-nguru-ku mangkurla-kapu-ku
scold-PAST I+NOM hit-.ACT+PART-ACC child-CAUS-ACC
=ACC ACC

(He) scolded me because I hit (his) kid.

Passive Participle: NOMINATIVE controller

(334) palu nyurti-warni-nha // wirrpa-ngka patha-rnakurka
he+NOM die- become-PAST // boomerang-LOC hit-PASS+PART

He died after being hit by a boomerang.

Passive Participle: ACCUSATIVE controller

(394) ngayi jimpayi-ka-rnakurka-ku marrparnta-nha-pa yarnta-yi
I-NOM "lose"- PASS+PART-ACC find-PASS-CLiT day-ACC
nyintala-ku
you+LOC -ACC

I found the watch lost by you.

We should note that a participle can act as the predicate for a nominal-type sentence, in which case the subject is predictably NOMINATIVE:

(173) mairrtu thukurta kampa-nguru
this+NOM fruit+NOM burn- ACT+PART

This fruit is ripe.
Now, there is one clear example of an **ACTIVE** participle being controlled by a **LOCATIVE** predicate adjunct:

(233) paru tharra-ku ngartilyilpa ngula kurna-ngka spinifex grow-PRES again there+LOC burnt country+LOC kampa-nguru-1a burn-ACT+PAST-LOC

The spinifex grows again in that burnt country which has burnt

Contrast this with the following use of the **LOCATIVE** to create a predicate adjunct from a nominal sentence use of the active participle:

(236) ngayi waka-yi yunga-ngka paruta-ruuru-la-pa I+NOM go-FUT rain-LOC rain-ACT+PAST-LOC-clitic

I will go after it rains

\[ yunga \text{ paruta-ruuru} \quad \text{LOC} \]

(239) ngayi nyurnti-ka-rna mankuru-ku palula mirta-ngka-lyi I+NOM dead-TVb-PAST kangaroo-ACC he+LOC not-LOC-TLSB

milpa-nguru-1a come-ACT+PAST-LOC

I killed a 'roo before he came up

\[ \text{palu mirta lyi milpa-nguru} \quad \text{LOC} \]

These would have, at labelling, the structure:
After merger and case raise and identical bracket deletion:

... [palula] [mirtangkaliyi] [bilpencurula] [1+H,+V] +LOC.

These parallel the complement sentence 189 that I discussed earlier.

3.6 Concord

This is the third use for CASE. We shall discuss two aspects, the first kind is given shape by merger, and the second consists of bodypart syntax and its close relative, adpositional syntax.

3.6.1 Merger Concord

All parts of nominal expressions and [+H,+V] expressions must agree in CASE. This is formalized by merger in the cases of nominal expressions — only elements with the same CASE may merge. It is formalized by both merger and case-raise for [+H,+V] expressions — only if all elements of a [+H,+V] expression bear the same CASE may the whole expression bear that CASE, and only elements marked with that CASE may merge with the [+H,+V] expression bearing that CASE.

Concord, like control, often results in double case-marking, as in sentences like the one on the next page, in which the LOCATIVE marked expression navarta-la gets ACCUSATIVE because
the whole \( r \), expression is controlled by the ACCUSATIVE

\[ \text{ngayi} \quad \text{ngayirr} \quad \text{kunji} \quad \text{varri} \quad \text{nha} \quad \text{pa} \quad \text{breath}^{+} \text{NO}^{+} \quad \text{feel funny}^{+} \text{PAST-clitic}^{+} \]

\[ \text{ngarna} \quad \text{nhaku} \quad \text{nghuru} \quad \text{ywa} \quad \text{varra} \quad \text{a} \quad \text{ku} \quad \text{ngayi} \quad \text{angali} \quad \text{nguru} \quad \text{ACC} \quad \text{sec} \quad \text{ACT} \quad \text{PAST} \quad \text{horse} \quad \text{LOC} \quad \text{ACC} \quad \text{throw} \quad \text{PASS} \quad \text{ACT} \quad \text{PAST} \]

I felt funny inside, having seen his thrown by a horse.

There is at least one constraint on double case-marking. Namely, whenever one would expect an ACCUSATIVE to bear an extra ACCUSATIVE marking for reasons of concord, in fact what happens is that the first ACCUSATIVE is realized as a CAUSATIVE:

\[ \text{palu} \quad \text{mirta} \quad \text{burli} \quad \text{varri} \quad \text{nha} \quad \text{ngaju} \quad \text{pukarre} \quad \text{kapa} \quad \text{ku} \quad \text{not} \quad \text{want} \quad \text{become}^{+} \text{PAST} \quad \text{I} \quad \text{ACC} \quad \text{fire} \quad \text{cause}^{+} \text{ACC} \quad \text{warrku} \quad \text{ru} \quad \text{ku} \quad \text{extinguish}^{+} \text{SUB}^{+} \text{ACC} \]

He didn't want me to put the fire out.

It cannot be a phonological constraint because it applies to both allomorphs of the ACCUSATIVE:

\[ \text{warlu} \quad \text{"snake"} \quad \text{warlu} \quad \text{yi} \quad \text{"snake-ACC"} \quad \text{warlu} \quad \text{kapa} \quad \text{ku} \quad \text{(40/11)} \]

\[ \text{mangkurla} \quad \text{"child"} \quad \text{mangkurla} \quad \text{ku} \quad \text{"child-ACC"} \quad \text{mangkurla} \quad \text{kapa} \quad \text{ku} \quad \text{(330)} \]

I have no explanation for this constraint.

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1 In Y., there is a strange use of CAUSATIVE-ACCUSATIVE in Y., in dependent clauses. (The Y. system of control is rather different from Ngarrluma, and complicated). Verdiick says it's used to mark Subject in certain clauses in which Subject and Object are both marked OBJECTIVE e.g.

\[ \text{ngayi} \quad \text{mirtu} \quad \text{ngaartarrata} \quad \text{wampi} \quad \text{maw} \quad \text{warrrra} \quad \text{I} \quad \text{know} \quad \text{man-CAUS-ACC} \quad \text{hit-PERFECT-3SG} \quad \text{woman-3SG} \quad \text{I know the man hit the woman} \]
3.6.2 Bodypart and Adpositional Syntax

3.6.2.1 Bodypart syntax

We shall be discussing the expression of a whole, and an inalienable part of the whole; the most prototypical case is that of a higher animate and part of its body. Examples follow:

Bodypart and Person in NOMINATIVE

200 ngayi yulku kuranja-1ku
   I+MON head+MON hurt-PRES
   I have a head-ache

Bodypart and Person in ACCUSATIVE

201 ngunbu jatil murru-puntherri ngarnta-ka-1ku
   that+MON saddle+MON back-TOOL+MON sore-TVb-PRES
   (saddle)
   yawarta-ku murru-yi
   horse-ACC saddle-ACC
   That saddle is chafing the horse's back

Bodypart and Person in LOCATIVE

202 nhala nguntahal mera-ngka nyintala
   what+MON that+MON hand-LOC you+LOC
   What (is) that in your hand?

Following a suggestion of Gale, I shall consider these constructions as Argument evaluator (person/whole) and adverb (bodypart/part), not as inalienable possession. So the sentences will mean something like: "I am hurting headwise" "The saddle is chafing the horse on the back" "what is that you
you have in your hand?"

There is one piece of evidence for this claim. It comes from control. As we have said earlier, it is the NOMINATIVE position of a predicate that gets controlled. If bodypart-person constructions were Possessed-Possessor constructions, then we would expect that only the entire Possessed-Possessor construction could be controlled, and certainly not that the Possessor alone could be controlled.

But, the following sentence shows that the "person" (bullock) can be the controller. This is explicable if it is in fact the NOMINATIVE, and the bodypart kurika-yi is an adverb controlled by the NOMINATIVE position (which is in turn controlled by the ACCUSATIVE argument position of thaka-ru):

(406) ngayi thaka-ru mirriji-la ngurna mirta-yi kurika-yi
I take-FUT rope-LOC that-ACC not-ACC ear-ACC
wirnta-rnakurla-ku
cut-PASS+PART-ACC
I will rope the one that has not been earmarked.

Compare this with a NOMINATIVE sentence:

(403) ngunhu kurika wirnta-rnu-gali-nguru
that+NOM ear+NOM cut-PASS+ACT+PART
He's been ear marked

If the NOMINATIVE subject is doing something to part of himself several options are open. The first is to use a nominal expression meaning something like "self": maresirringu ~ jankuri
as in the following:

(262) kampa-lku jankurl marapirringu
       burning himself

       wangka-ku marapirringu
talking to self

If the subject is doing something to some specific part of
himself, marapirringu may be used:

(3) ngayi wirnta-rna marapirringu mara-yi
    I+NON cut-PAST self hand-ACC
    I cut my hand

If the subject is doing something to himself in general, the
verb may be converted into a verb with a different predicate
argument structure, one of whose arguments is bound to the
subject, as in nyirra "to rub" which becomes, with the
addition of the suffix /-rri/, nyirra-rri "to rub oneself":

(7/7) ngangka nyirra-rri-yi-va
      mother rub-IntV-PAT-clitic

      The mother rubs herself

Finally, either the object pronoun can be expressed overtly
or left a blank, when a specific body part is mentioned:

(83) ngayi thurnta-rna jirli-yi ngaju ...
    I+NON rub-PAST arm-ACC I+ACC
         I rubbed my arm

(64) wihal-yi nyinta japurra-lku mara-ngka nyintala
    what-ACC you+NON hold-PRES hand-LOC you+LOC
    What are you holding in your hand?

(possibly a blend: KH)

1 In Y it is apparently obligatory to use "tyarunku". If
tyarunku is omitted, apparently coreference between the owner of
the body part and the subject would be impossible. Alternatively
a "middle verb" (like nyirra-rri) can be used. (p.142)
In these we can say that the ACCUSATIVE argument position is bound to the Subject/NOMINATIVE, and that this ACCUSATIVE argument position is what ngarmgarn-ku and ngaskarinya-ku agree with. I do not think we want to say that these bodyparts are predicates controlled by the argument position of another predicate, because it is hard to imagine what such a predicate would mean. Instead I think that concord indicates that they are to be interpreted as qualifying the argument position without actually being merged. This contrasts with true possessives with tharnku which are merged as in:

In this, ngaaju-tharantu and nyupayi are merged.

So, we will need another rule of interpretation which allows unmerged lexical elements to be in a qualifier-head relation, given that they are in a whole-part relation of some kind.

3.6.2.2. Adposition Syntax

The relation of an adposition to what it modifies is just a more
version of the whole/part person/bodily part relation.
Consider the following examples:

213

ngayi wanting-rru majirr-ku nhula yapu-ngka
put-PUT match-ACC here+LOC box-LOC

thurru-ngka
inside-LOC

I'll put the match inside this box.

215 (170)

varnta waka-ku papa-ngka kankarni
wood+ Categories go-PASS water-LOC top+LOC

The wood floats on top of the water.

215 (246) . . . . . // karipa-nha marturra-la papa-ngka
rise-PAST middle-LOC water-LOC

.(he) came up in the middle of the water

In each of these the adpositional is making more precise a
location — in 213 not just AT the box, but INSIDE the box;
in 215 not just AT the water but ON TOP OF the water; in 215
not just IN the water, but in the MIDDLE of the water.
The adposition pinpoints a part of an area — on top of, inside,
on the other side of, in the middle of, underneath and so on.
If the whole is controlled by some other CASE, the adposition
gets that CASE too e.g.: 216

216

ngayi warrparnta-nha nganthan-ta-ku thurru-ngka-ku
find-PAST swing-LOC-ACC under-LOC-ACC

I found it under the swing.

and so I shall say that adpositions should be treated by the same
rule of concord that allows bodyparts to modify the owner of the
bodily part.
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