

Case and configurationality: scrambling or mapping?

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Abstract Kanum, a language of southern New Guinea, displays nonconfigurationality only for arguments marked with an overt structural case. After examining a variety of constraints on scrambling, in main and subordinate clauses, I argue that nonconfigurationality is a process of scrambling, rather than independent mapping from functional structure to constituency, and further is dependent on features associated with overt morphological case, and that alternative accounts in terms of grammatical function identity cannot be sustained.

Keywords Papuan · Configurationality · Case

1 Case and configurationality

Case-marking nonconfigurational languages such as Warlpiri (Hale 1983; Simpson 1991; Austin and Bresnan 1996) and Jiwarli (Austin 2001) famously allow for discontinuous constituents, as in (1), in which both NP fragments *marlungku* ‘kangaroo-ERG’ and *witangku* ‘small-ERG’ refer to the same participant, and are both marked with the same ergative case.¹

¹ The following are used in glossing portmanteau morphemes SG, DU, PL: singular, dual, plural; 1, 2, 3: first, second and third person; A, S, P: following Comrie (1978). Additional abbreviations used are ABS: absolutive; ALL: allative; ASSOC: associative; AUX: auxiliary; D(P): determiner (phrase); DAT: dative; ERG: ergative; FUT: future; HR: highest argument role; INF: infinitive; LOC: locative; LR: highest argument role; OBJ: object; OBL: oblique; SUBJ: subject; UNM.OBJ: object prefix not selecting person or number features; YPAST: yesterday’s past.

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Warlpiri

- (1) [_{NP} Marlu-ngku] ka-ju ngaju [_{NP} wita-ngku] nya-nyi.
 kangaroo-ERG AUX-1SG.OBJ 1SG.ABS small-ERG see-NONPAST
 'The small kangaroo sees me.'

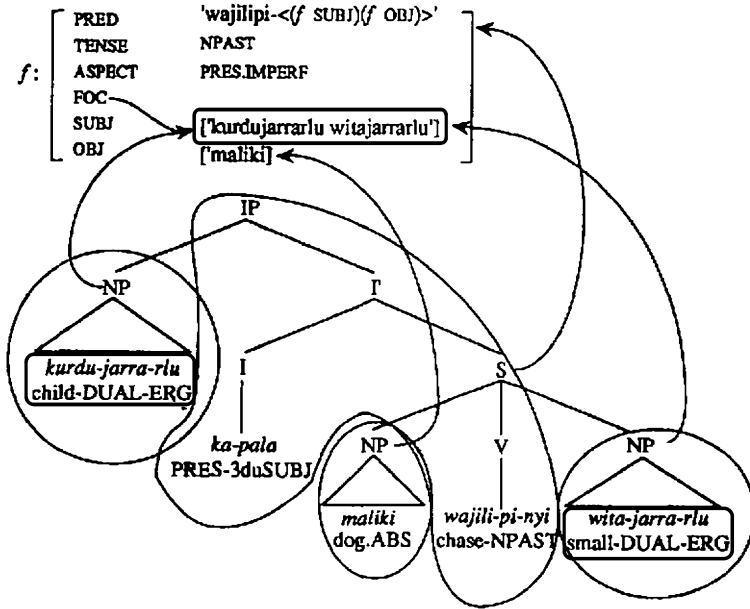
Under some approaches to case (see, for instance, Legate 2002) shared case marking (e.g., on both *marlungku* and *witangku* in (1)) is present because the constituents having been scrambled out of a single (contiguous) base-generated phrase. Further, this scrambling is licensed by the presence of agreement on a verb or auxiliary (the clitic *-ju* '1SG.OBJ' in (1)), with this agreement being treated as the argument itself, while any actual DPs representing lexical information about that argument are treated as in some way an adjunct (Jelinek 1984; Baker 1996, 2001) (see also, and especially, Pensalfini 2004). The optionality of DPs is cited as an argument for assuming that the DPs in languages such as Warlpiri are adjuncts. This argument is shown in the grammaticality of both (2), in which both of the pronominal arguments is represented both in a DP and in the second-position clitics, and (3) in which the only representation of the arguments is by second position clitics, similar to 'the doctor' and 'the patient' in the English sentence in (4).

- (2) **Ngajurlu-rlu=rna=ngku nyuntu nya-ngu.**
 1SG-ERG=1SG.SUBJ = 2SG.OBJ 2SG see-NONPAST
 'I saw you.'
- (3) **Nya-ngu=rna=ngku.**
 see-NONPAST=1SG.SUBJ=2SG.OBJ
 'I saw you.'
- (4) He, the doctor, tells me, the patient, what to do.

Under other accounts (e.g., Simpson 1991; Andrews 1996; Austin and Bresnan 1996; Nordlinger 1998) the discontinuous elements are united in *functional structure*, where the semantic associations of the different elements are explicit, but a single 'constituent' of functional structure maps on to more than one NP-fragment in *constituent structure*. Conclusive evidence favoring one approach over the other has not been aired. In (5) and (6) the (semantically consistent) phrase *kurdujarjarlu wita-jarraru* 'two small children' overtly shares case and number between the two noncontiguous elements.

- (5) **Kurdu-jarra-rlu ka-pala maliki wajilipi-nyi wita-jarra-rlu.**
 child-DUAL-ERG PRES-3DU dog chase-NONPAST small-DUAL-ERG
 'Two small children are chasing the dog.'

- (6) The mapping of functional structure to constituent structure in (5) (Austin and Bresnan 1996)



In this paper we examine data from Kanum, a language of southern New Guinea which displays aspects of nonconfigurationality that go beyond that reported for most languages of New Guinea (e.g., Donohue 2005), but which are not as unconstrained as are reported for Australian languages. From the data presented I argue that nonconfigurational structures in Kanum (specifically, structures with noncontiguous NPs) should be viewed as scrambled variants of more ‘basic’ configurational structures, with contiguous NPs, and not simply as the results of the random mapping of functional material into constituent structure.

2 Case in Kanum

Kanum is a language of southern New Guinea just north-west of the Torres Strait (Boelaars 1950; Drabbe 1947, 1950); the variety described here is known to its speakers as *Ngkaolmpw Ngkaontr Knwme*. The language has extensive agreement for both subject and object on the verb (with both arguments showing agreement suppletting for tense in complex ways), and has an extensive case-marking system, and shows free word order properties. In this paper the morphological aspect that I focus on is the case system (see Donohue 1997, 1999 for other discussion of the syntax, and Donohue 2008 on the numeral system). The morphological cases in Kanum are: ergative (with various allomorphs: *-w*, *-ya*, *-nta*, *-y*, *-ngkw*), dative (*-ne*), locative (*-ny*), ablative (*-mpa*), allative (*-ngke*), instrumental (*-nm*), causal (*-wa*),

Examples of phrases conforming to this template, with different types of modifiers, are given in (8). These phrases do not show case marking; they could appear as arguments marked with absolutive case, or as single identifying statements (e.g., (8a) could be the response to ‘Who fell over?’).

- (8) a. ntaop klawo
big child
‘big child’
- b. yaw mwa
three house
‘three houses’
- c. ncao-ne mpaowr
1SG.OBL-DAT cassowary
‘my cassowary’
- d. klawo py
child that
‘that child’

Case appears on the final word of the NP, where it is obligatory, and on the determiner. It cannot appear on modifiers inside the NP. Examples of phrases conforming to, and violating, these restrictions are shown in (10).

- (9) * [DP [NP (modifiers)* (N)] (D)]
-

- (10) a. ntaop klawo-ne
big child-DAT
‘for the big child’
- b. yaw mwa-ny
three house-LOC
‘in three houses’
- a.’ *ntaop-ne klawo-ne
- b.’ *yaw-ny mwa-ny
- c. ncao-ne mpaowr-t
1SG.OBL-DAT cassowary-ASSOC
‘with my cassowary’
- d. klawo-w pye-ngkw
child-ERG that.OBL-ERG
‘that child’
- c.’ *ncao-ne-t mpaowr-t
- d.’ *klawo pye-ngkw
- e. mpw-ne yempoka waotkl klampy-t pye-t
2SG.OBL-DAT two small children-ASSOC that.OBL-ASSOC
‘with those two small children of yours’

Examples of DPs with ergative case on both the N and the D can be seen in (11a–d). In (11a) there is agreement in terms of case marking between the N and the D, while (11b)–(11d) show that different NP-internal modifiers, such as adjectives, numerals and possessors, may not show case agreement with a following noun.³ The presence or absence of a D modifying the relevant argument does not affect the constraint against a nominal modifier taking case marking, as shown in (12c–d), where the appearance of the dative case on the adjective *ntaop* is ungrammatical.

- (11) a. [DP [NP Yrye-w] pyengkw] sreyerknt mao.
man-ERG that:ERG he:will:stalk:it wallaby(ABS)
‘That man will stalk a wallaby.’

³ Kanum verbs are morphologically complex, but because this complexity does not bear on a discussion of case marking, they shall not be glossed in full here, purely in order to save space. A fully segmented gloss for the verb *sreyerknt* is: *s-r-eyerkt-nt* FUT~YPAST.UNM.OBJ-1/3SUBJ.FUT-stalk-FUT.

- b. [DP [NP Ntaop(*-w) yrye-w]] sreyerknt mao.
 big-ERG man-ERG he:will:stalk:it wallaby(ABS)
 ‘(The) big man will stalk a wallaby.’
- c. Mao [DP [NP yempoka (*-ya) yrye-ya]] sreyerknteme.
 wallaby(ABS) two-PL:ERG man-PL:ERG they:will:stalk:it
 ‘(The) two men will stalk a wallaby.’
- d. Mao sreyerknteme [DP [NP ncao-ne(*-w) klawo-w].
 wallaby(ABS) he:will:stalk:it 1SG:OBL-DAT-ERG child-ERG
 ‘My child will stalk a wallaby.’

- (12) a. ntaop klawo-ne b. ntaop klawo-ne ngkye-ne
 big child-DAT big child-DAT that.OBL-DAT
 ‘for the big child’ ‘for this big child’
- c. *ntaop-ne klawo-ne d. *ntaop-ne klawo-ne ngkye-ne

The inability of any of *ntaop*, *yempoka* or *ncaone* to take case in (11) and (12) is due to their phrasal position, and is not a lexical restriction: if an NP lacks an N serving as the head, and the modifier in question is the final word of the NP, then it may host case marking. This is only illustrated for an adjective in (13), but is true of all modifiers.

- (13) a. [DP [NP Ntaop-w]] sreyerknt mao.
 big-ERG he:will:stalk:it wallaby(ABS)
 ‘(The) big one will stalk a wallaby.’
- b. [DP [NP Ntaop-w] pyengkw] sreyerknt mao.
 big-ERG that:ERG he:will:stalk:it wallaby(ABS)
 ‘That big (one) will stalk a wallaby.’

Case marking is, then, restricted by phrasal position, and not by lexical class.

3 Configurationality in Kanum

Most of the elements of the clause and, to a lesser extent, the sentence are freely ordered in Kanum, though there are pragmatic preferences for the subject to appear initially if there are no other pragmatically salient participants in the clause, and for a pronoun to be cliticized on to a following verb. The broad template seen in (14) summarizes the facts of clausal order, where ‘X’ is used to represent ‘any element, argument or non-argument, in the clause’.

- (14) Topic/Focus Subject... X... [V (pronoun(s)=)Verb] ... X...I-Focus

Given appropriate pragmatic circumstances, any order of phrases is acceptable. As noted in (14), discourse-salient information such as those elements that bear either

of the pragmatic functions Topic or Focus are most likely to be initial in the sentence, while identificational focus will also frequently appear sentence-finally. The four words shown in (15) can appear in any of the 24 logically-possible permutations available to them, subject to the pragmatic conditions outlined above. Adding more elements, such as instruments, time, accompaniers, will only increase the possible sentences, while factoring in pragmatic considerations will reduce the number of possibilities.

- (15) a. Yrye-w mao sreyerknt kaelymw-ny
 man-ERG wallaby he:will:stalk:it bush-LOC
 ‘(The) man will stalk (the) wallaby in the bush.’

While contiguous NPs and DPs show a strict internal order, as seen in (7)–(10), DPs can also appear non-contiguously within their clause. If this occurs the final word in each string corresponding to an element in the case-marked NP receives case marking, as well as the D. This is an extension of the principles that we saw in (13), whereby elements other than an N may host case marking, as long as they are final in the NP. In (16b–d) there are, for phrase structure purposes, two ergative NP/DPs, and the final word in each contiguous string (NP or DP) receives ergative case. The pragmatic motivation for this type of scrambling appears to follow the same principles as outlined in (14) for the order of elements in a clause: pragmatically salient information may be marginalized in the clause, whether that information represents full DPs, or only parts of a DP. (16e) has two NPs and a D that is not contiguous to either of them; as a result, ergative case appears in three separate parts of the clause. The requirement that the final element of an NP mark case means that, for instance, **Ntaop pyengkw sreyerknt yryew*, based on (16d) but lacking the ergative marking on *ntaop*, is ungrammatical since *ntaop* occupies the final (as well as the initial) position in the NP.

- (16) a. [DP [NP Ntaop yrye-w] pyengkw] sreyerknt
 big man-**ERG** that:**ERG** he:will:stalk:it
 ‘That big man will stalk it.’
 b. [DP [NP Ntaop yrye-w]] sreyerknt [DP pyengkw].
 big man-**ERG** he:will:stalk:it that:**ERG**
 ‘That big man will stalk it.’
 c. [DP [NP Yrye-w] pyengkw] sreyerknt [NP ntaop-w].
 man-**ERG** that:**ERG** he:will:stalk:it big-**ERG**
 ‘That big man will stalk it.’
 d. [DP [NP Ntaop-w] pyengkw] sreyerknt [NP yrye-w].
 big-**ERG** that:**ERG** he:will:stalk:it man-**ERG**
 ‘That big man will stalk it.’
 e. [NP Ntaop-w] mao [DP pyengkw] sreyerknt [NP yrye-w].
 big-**ERG** wallaby that:**ERG** he:will:stalk:it man-**ERG**
 ‘That big man will stalk a wallaby.’

The possibility for scrambling, and so violating the DP template seen in (7), only applies to true noncontiguous strings. In Kanum noncontiguity requires real separation of the elements of the NP, and not just a non-canonical order for an otherwise contiguous string. If the elements of an NP are contiguous they can only be interpreted as belonging to a single NP, and any order that would violate the template in (7) results in ungrammaticality. The string of words seen in (17a) can only be interpreted as reflecting the structure shown in (17b), not that of (17c) (compare with (16a)).

- (17) a. * Yrye(-w) ntaop(-w) pyengkw sreyerknt.
 man-**ERG** big-**ERG** that:**ERG** he:will:stalk:it
- b. * [_{DP} [_{NP} Yrye(-w) ntaop(-w)] pyengkw] sreyerknt.
 man-**ERG** big-**ERG** that:**ERG** he:will:stalk:it
- c. * [_{NP} Yrye(-w)] [_{DP} [_{NP} ntaop(-w)] pyengkw] sreyerknt.
 man-**ERG** big-**ERG** that:**ERG** he:will:stalk:it

4 Case and configurationality

Unlike the Australian example in (5), DPs without overt morphological case (that is, S or P arguments) cannot scramble. This means that while the ergatively marked NPs in the previous examples may show scrambling, absolutive arguments may not, regardless of their status as subjects or objects. (18a) shows a monovalent clause with a single argument, appearing without overt case marking, and (18b) shows the ungrammaticality of scrambling this string (all other possible scramblings of the elements of the DP are ungrammatical, though the DP itself may appear anywhere in the clause). In (19) the absolutive argument of a bivalent clause is similarly restricted, and may not appear discontinuously.

- (18) a. [_{DP} Rmp-ny] kraoyngkaont-eme [_{DP} [_{NP} eser klampy] py].
 mud-LOC they:will:fall **four children that**(ABS)
 ‘The four children will fall in the mud.’
- b. * [_{NP} Eser] [_{DP} rmp-ny] kraoyngkaonteme [_{DP} [_{NP} klampy] py].
 four mud-LOC they:will:fall **children that**(ABS)
 Intended meaning: ‘The four children will fall in the mud.’
- (19) a. [_{DP} Pyengkw] sreyerknt [_{DP} [_{NP} ntaop mao] py].
 that:**ERG** he:will:stalk:it **big wallaby that**(ABS)
 ‘He will stalk that big wallaby.’
- b. * [_{DP} Pyengkw] [_{NP} ntaop] sreyerknt [_{DP} [_{NP} mao] py].
 that:**ERG** **big** he:will:stalk:it **wallaby that**(ABS)
 Intended meaning: ‘He will stalk that big wallaby.’

We have seen that DPs that are not marked for case do not allow scrambling. The restriction is more complex: only certain morphological cases allow scrambling, namely the ergative and the dative. We have already seen examples of ergative-marked DPs scrambling; an example of a scrambling dative NP is shown in (16).

- (20) a. Yempoka nngka-ne saonaome kwr.
 two y.sibling-**DAT** they:will:give:it pig
 ‘They’ll give pork to the(ir) two younger brothers.’
 b. Nngka-ne saonaome kwr yempoka-ne.
 y.sibling-**DAT** they:will:give:it pig two-**DAT**
 ‘They’ll give pork to the(ir) two younger brothers.’

Oblique cases do not license a DP to scramble; this is illustrated with the locative case in (21), but is true of the other oblique cases as well (see footnote 2 for a list of cases).

- (21) a. Nngka-w sreyerknt kwr kaelymw-ny ngkyen-ny.
 y.sibling-**ERG** he:will:stalk:it pig bush-**LOC** this.OBL-**LOC**
 ‘(My) little brother is going to stalk pigs in the bush here.’
 b. * Nngka-w kaelymw-ny sreyerknt ngkyen-ny kwr.
 y.sibling-**ERG** bush-**LOC** he:will:stalk:it this.OBL-**LOC** pig
 Intended meaning: ‘(My) little brother is going to stalk pigs in
 the bush here.’

This might be taken to suggest particular, and peculiar, properties associated only with the ergative and dative cases, by which scrambling is barred from arguments except those marked with one of these two cases, as set out in (22).

Scrambling condition

- (22) Only NPs / DPs overtly marked with the ergative or dative case may undergo scrambling.

The restriction is in fact even stronger than this: scrambling is permitted with a structural dative case, used to mark a recipient such as in (20), but when the dative case marks a possessor, seen in (5c), or beneficiary no scrambling is permitted. The example in (23) shows a beneficiary marked by the dative, and it is unable to scramble.

- (23) a. Yaons oml-w srmakrnt yempoka klampy-ne.
 meat mother-**ERG** she:will:roast:it two children-**DAT**
 ‘Mother is roasting meat for (her) two children.’
 b. * Klampy-ne yaons oml-w srmakrnt yempoka-ne.
 children-**DAT** meat mother-**ERG** she:will:roast:it two-**DAT**
 Intended meaning: ‘Mother is roasting meat for her two children.’

Cross-linguistically the dative does not show a single united behavior: sometimes it acts as a structural case, and sometimes as a semantic case. In Kanum this contrast is emphasized by the differential behavior with respect to scrambling, whereby the structural case, marking a subcategorized-for recipient as in (20) allows scrambling, and the semantic case, which marks a beneficiary (as in (23)), does not.

5 Kanum, configurationality, and grammatical functions?

The new data in Sect. 4 suggest that grammatical functions, not (morphological) case, are critical to the determination of whether or not scrambling is grammatical in Kanum. Since non-terms do not allow scrambling, regardless of the presence of obligatory overt case marking on all obliques, we are able to restate the morphological case-based conditions on scrambling in terms of an appeal to the argument structure of the predicate, as in (24), rather than case identity itself.

(24) Revised scrambling condition

- An argument may scramble if:
1. it is an argument of a verb *and*
 2. there is at least one lower argument of the same verb

This pair of conditions will firstly exclude any non-arguments from scrambling, and then will require that only ergative- and dative-marked arguments may show scrambling. The different schema in (25)–(27) model the argument structure status of the various participants seen earlier in (18), (11), and (20), respectively, using the verbs *aoyngkao* ‘fall’, *eyerk* ‘stalk’, and *aonao* ‘give’. For each of (25)–(27) an explicit representation of the assignment of features [highest role] and [lowest role] (referring to relative position in argument structure, following a thematic hierarchy running from agent to patient) to each of the arguments is shown in the prime’ examples.⁴

- Monovalent verb *aoyngkao* ‘fall’
- (25) Predicate: ‘fall <theme>’
 Participant 1: ‘children’, highest role in the verb’s subcategorization frame
 Participant 2: ‘mud’, not part of the verb’s subcategorization frame
- (25)’ Predicate: ‘fall <theme>’
 [highest]: +
 [lowest]: +

⁴ The terminology used, ‘highest role’ and ‘lowest role’, is reminiscent of Lexical Decomposition Grammar (e.g., Wunderlich 1997). In works following the LDG tradition ‘highest’ and ‘lowest’ refers to the relative position of an argument in an explicit semantic decomposition of the verb’s event structure. The terms are used here in a sense closer to Kiparsky (2001, 327), in that ‘highest role’ refers to an external argument, judged here by the relative position in an ordered list of arguments of the verb (e.g., Bresnan and Kanerva 1989). Similarly, ‘lowest role’ refers to the ‘lowest’ (most patient-like) argument in a list of direct arguments of the verb.

- Bivalent verb *eyerk* ‘stalk’
- (26) Predicate: ‘stalk <agent, theme>
 Participant 1: ‘man’, highest role in the verb’s subcategorization frame
 Participant 2: ‘wallaby’, lowest role in the verb’s subcategorization frame
- (26)’ Predicate: ‘stalk <agent, theme>
 [highest]: + -
 [lowest]: - +
- Trivalent verb *aonao* ‘give’
- (27) Predicate: ‘give <agent, recipient, theme>
 Participant 1: ‘they’, highest role in the verb’s subcategorization frame
 Participant 2: ‘younger brothers’, neither the highest role or the
 lowest role in the verb’s subcategorization frame
 Participant 3: ‘pork’, lowest role in the verb’s subcategorization frame
- (27)’ Predicate: ‘give <agent, recipient, theme>
 [highest]: + - -
 [lowest]: - - +

Examined in terms of argument structure geometry, it is clear that only arguments bearing the feature [-lowest] are eligible for scrambling. This would suggest that we can dispense with reference to morphological case itself, and run the account of scrambling entirely by reference to argument structure. This is not, however, borne out by the data in the following section.

6 Subordination and the resurgence of case

Grammatical function information is relevant to an account of scrambling, and the previous section provided an account for the data examined so far that makes reference only to argument structure positions. That is, the contrast between terms and non-terms, and the distinction between absolute terms and other terms, was proposed as superordinate to morphological case in determining the eligibility of an argument to appear discontinuously in the clause.

In this final section I return to a consideration of morphological case itself, showing that the syntactic account is not adequate when we include data from subordinate clauses, in which case marking patterns differ from main clauses in three important ways. Firstly, the erstwhile dative case *-ne* assumes an accusative role; secondly, the ergative case is unknown; and finally, not only intransitive subjects, but also transitive (and ditransitive) subjects are unmarked for case (effectively, in subordinate clauses nominals unmarked for case are nominative, not absolutive).⁵ The correspondences between main clause case marking and subordinate clause case marking are shown in (28).⁶

⁵ Relative clauses do not show the alternations discussed here for complement subordinate clauses.

⁶ Verbal agreement consistently encodes a nominative/accusative division, showing that the accusativity seen in subordinate clauses is not unprecedented in the language.

	Main Clause	Subordinate Clause
(28) A:	ERG	Ø
S:	Ø	Ø
P:	Ø	DAT

Examples of the variation are shown in (29) and (30). (29) shows a main clause, with ergative case marking the A and the P unmarked by overt case, familiar from examples in previous sections.⁷ Omitting the ergative case in the main clause is ungrammatical, as is using the dative to mark the P, shown in (29b) and (29c). In the subordinate clause seen in (30) the use of the ergative is ungrammatical, (30b), and the omission of the dative on the P is just as bad as its presence was in the main clause in (29c). Note also that in (30a) the simple base of the demonstrative, *py*, is affixed directly with the dative case, and the oblique base, *pye-*, that was used with the dative in, for instance, (12b), is not used, further emphasizing the fact that the dative has different functions in Kanum, and behaves differently in these different functions.

- (29) a. Klampy-ya kkl py kraomyngknteme.
 children-PL:ERG sago(ABS) that(ABS) they:will:eat:it
 ‘The children will eat that sago.’
 b. * Klampy-Ø kkl py kraomyngknteme
 c. * Klampy-ya kkl-**ne** py kraomyngknteme
- (30) a. [Klampy kkl-ne py-ne aomyngk-t] nrwary.
 children sago-DAT that-DAT eat-INF she:called:them
 ‘She called the children to eat that sago of ours.’
 b. * Klampy-**ya** kkl-ne py-ne aomyngk-t nrwary
 c. * Klampy kkl-Ø py-ne aomyngk-t nrwary

Most importantly, we find that Ps, which occurred as unmarked ‘absolutives’ in main clauses and which were not (in that environment) eligible for scrambling, may appear noncontiguously in subordinate clauses. Compare (30a), in which the DP *kklne pyne* ‘that sago of ours’, occurs contiguously in the subordinate clause, with (31), in which the same argument is split by the infinitival verb into two parts, *nyne pyne* and *kklne*. Nonconfigurationality is not an option in a main clause for an object, where it is unmarked for case, as seen earlier in (19b).

- (31) [Klampy py-ne aomyngk-t kkl-ne] nrwary.
 children that-DAT eat-INF sago-DAT she:called:them
 ‘She called the children to eat that sago.’

Further, note that an A, which is able to scramble in main clauses where it is marked with ergative case (see (16)), cannot appear noncontiguously in subordinate clauses, where it has no overt case, seen in the ungrammaticality of (34).

⁷ The plural form of the ergative has previously been seen in (11); see Sect. 2 for a list of case forms.

- (32) Klampy-ya py-nta kkl kraomyngknteme.
 children-PL:ERG that-PL:ERG sago(ABS) they:will:eat:it
 ‘Those children will eat sago.’
- (33) [Klampy py kkl-ne aomyngk-t] nrwary.
 children that sago-DAT eat-INF she:called:them
 ‘She called those children to eat sago.’
- (34) * [Klampy kkl-ne aomyngk-t py] nrwary.
children sago-DAT eat-INF **that** she:called:them
 Intended meaning: ‘She called those children to eat sago.’

Ditransitive verbs allow for two dative-marked arguments to appear in a subordinate clause, either of which may display scrambling. In (35a) both the recipient and the theme are marked with dative case; in (35b), in which *yempoka* ‘two’ appears separate from either of these two arguments, it may be interpreted as being scrambled from either of these two identically case-marked arguments.

- (35) a. [Klampy nngka-ne aonao-t kwr-ne] nrwary.
 children y.sibling-DAT give-INF pig-DAT she:called:them
 ‘She called the children to give pork to their younger brother.’
- b. [Yempoka-ne klampy nngka-ne aonao-t kwr-ne]
 two-DAT children y.sibling-DAT give-INF pig-DAT
 nrwary.
 she:called:them
 ‘She called the children to give pork to their two younger brothers.’
 or ‘She called the children to give two pigs to their younger brother.’

These data show that in subordinate clauses the overtly case-marked ‘accusative’ argument, rather than the caseless ‘ergative’ argument, may scramble. The account presented in Sect. 5, in terms of banning scrambling on any [+lowest] arguments, is clearly refuted by the data from subordinate clauses. Combining the data from main clauses and subordinate clauses, we find that the arguments of the verb that are able to scramble must be overtly case-marked with either the ergative or dative case (and that the dative must be a structural dative, not a semantic one). Scrambling is more dependent on (overt) case marking (and the identity of the particular case) than on ‘grammatical function’ or syntactic role.

It is worth considering an analysis in which there are two dative cases, *-ne* ‘(structural) dative’, which marks a recipient, and *-ne* ‘(semantic) dative’, marking beneficiaries. Of these only the structural dative allows for scrambling (compare examples (20) and (23) above), showing different behavior from the semantic dative. We can trivially account for this difference by assuming two different, but homophonous, morphemes, only one of which passes the feature [nonconfigurational] to its argument. In terms of the theory of Constructive Case (Nordlinger 1998), lexical representation representing this analysis are shown in (36) and (37). The ability of the structural dative to contribute the feature ‘OBJ’ to the constituent to

which it is attached allows that argument to appear discontinuously by virtue of the argument realizing a direct argument, which is stipulated (as in any potential account of Kanum nonconfigurality) as being the prerequisite for noncontiguous constituents.

Lexical specification of the two *-ne* suffixes after Nordlinger (1998)

(36) *-ne*: (↑ CASE) = DAT₁ (direct argument, shown in (20))
 (OBJ ↑)

(37) *-ne*: (↑ CASE) = DAT₂ (non-argument, shown in (23))
 (OBL ↑)

While it is clear that this approach can account for the data, it is unclear what kind of data this model could not account for. In particular, in an approach that takes the ‘case categories’ (effectively A, S and P, in the terminology of Comrie 1978), rather than the morphological case itself, as the pivot of the model it is hard to see why ‘nominative/absolutive’ NPs, which do not receive any morphological case in Kanum, cannot scramble, and why ‘accusative’ NPs can only scramble when they have overt case marking, in subordinate clauses. Given the richness of case marking on all other nominal constituents in the clause an argument based on opacity of morphological case cannot be sustained without extreme stipulation, and it is thus unclear why all and only the morphologically-marked terms, and no non-terms, are eligible for scrambling. The Constructive Case analysis presented here makes the fact that the only other case to allow scrambling (the ergative) is also a structural case purely coincidental. Similarly, the difference in behaviour of a P depending on whether or not it has overt case or not must be an additional stipulation. The account advocated here, that both reference to termhood and reference to overt morphological case are required in an account of nonconfigurality in Kanum, still allows for the analysis of two different kinds of dative without requiring that they represent two different lexical entries.

7 Conclusions

The Kanum data shows that an operation that has been claimed to operate in the syntax of a language, NP-scrambling, is sensitive not only to grammatical function identity, which can be assumed to represent information greater than the word and morpheme level, but also to the morphological presence or absence of overt case.

While it is hard to conceive of the kind of data that could not be explained by a mapping hypothesis that is as powerful as that assumed by LFG (shown in (6)), such an account could not easily capture the fact that discontinuous behaviour in Kanum is sensitive to overt morphological case (as well as the core versus non-core distinction). Simple case categories are not adequate to describe the data, as discussed in the preceding section. Further, the fact that individual substrings of an NP are obligatorily treated as part of a single NP when they are adjacent strongly suggests that the NP is firstly generated, and subsequently scrambled.

Morphological case cannot be assumed to be the mere phonological spell-out of a structural position, or a representation of a ‘case category’, but must be considered to be a separate element in the representation of a clause, with its own grammatical influence.

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