Datives in Hausa

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One of the results of recent work investigating the possibi-
lity of eliminating the categorial component is that non-extraposed
structures like that in (1), as opposed to the extraposed structure
in (2), are predicted not to occur in languages of the world.

(1) [V PP NP]   (2) [V $\underline{e}_i$ PP] NP_i

In what follows, it will be assumed, given the excessive descrip-
tive power and partial redundancy of the rules composing the cate-
gorial component, that the elimination of this component in favor
of general principles deriving its effects is desirable. (See
Stowell 1981, Ch. 2 for discussion.)

Stowell (see also Chomsky 1981) proposes that an adjacency
requirement on Case assignment (in conjunction with other principles)
accounts for the categorial component effects. This condition,
given in (3), requires that Case assigners not only govern, but be
adjacent to the elements they assign Case to.

(3) Case Assignment (Stowell 1981:113)
     In the configuration $[\alpha\beta\ldots]$ or $[\ldots\alpha\beta]$, α Case-marks
     β, where   (i) α governs β and
                      (ii) α is adjacent to β, and
                      (iii) α is [-N].

(4) *John ate yesterday the cake.

(5) *John showed to Mary the picture.

This correctly rules out sentences like (4), for example, where the
verb is not adjacent to the NP which needs to get Case from it due
to the intervening adverb. Notice that it also rules out sentences
like (5) which have the structure in (1).

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Kayne suggests that the Adjacency Conditions (and hence the effects of the categorial component) can be derived from still more general principles. These principles also conspire to rule out structure of the form in (1). This string has three possible structures (given in 6), each of which is disallowed.

(6) a. * [tree: V PP NP] b. * [tree: V PP NP] c. * [tree: V PP NP]
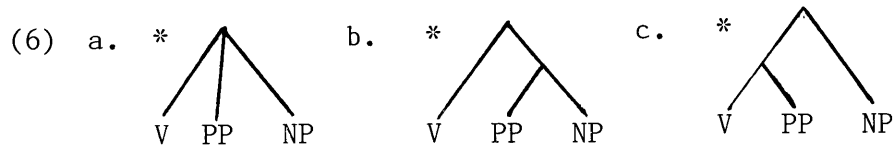
(6a) is out because ternary (in fact, anything but binary) branching is in general excluded by the Unambiguous Paths Condition (UPC), which requires that there be an unambiguous path between governors and governees (see Kayne 1981 for formulation and discussion). (6b) is ruled out by the Case Resistance Principle (CRP; Stowell 1981), an independently motivated principle disallowing assignment of Case to a head which itself bears Case-assigning features. Thus, on the assumption that the verb in (6b) assigns Case across the small clause boundary under some version of exceptional Case marking (/cross-boundary government), the preposition in the subject position receives Case in violation of the CRP. The requirement that Case and thematic (θ-) role be assigned by a lexical governor rules (6c) out under the assumption that V does not c-command NP (and V', which does c-command NP, is not lexical).

We see that Stowell's and Kayne's approaches to elimination of the categorial component predict 'V PP NP' not to occur. Canonical dative structures in Hausa (an SVO Chadic language) present an apparent counter-example to this claim. Consider the sentences in (7) where the indirect object, which is marked with wa (ma if it is pronominal), intervenes between the verb and the direct object . An alternative structure with PP (headed by ga) coming after the direct object is possible, though better (and for some speakers only possible) when the indirect object is "heavy". An example of this alternation, which is not a problem for the principles discussed so far, it is given in (8).

(7) a. Ali yaa nuunaa wa Aisha hootoo.
             INFL   show   to A.   photo
         'Ali showed Aisha the picture.'

     b. Ali yaa nuunaa mata   hootoo.
                          to-her
         'Ali showed her the picture.'

(8) a. Ali yaa nuuna hootoo ga Aisha
                              to A.
         'Ali showed the picture to Aisha.'

It will be argued that rather than presenting a genuine

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counter-example, Hausa contains evidence that the correct structure
for the canonical dative sentences in (7) is one where the prepo-
sition wa is part of the verb and NP_1 and NP_2 form a small clause
and therefore that the general principles approach to categorial
effects is non-problematic.

We begin with evidence that wa is part of the verb.[1] Facts
regarding interpollation of modal particles, conjunction of prepo-
sitional phrases, and extraction all strongly argue for this.

While true adverbs in Hausa cannot (as expected, given some
version of Adjacency) intervene between a verb and its object, pre-
positions and their objects, etc. (as in 9a and 10a), there is a
set of so-called "modal"/"adverbial" particles which may appear
just about anywhere except within a word or between a clitic and
its "host".[2] Where adverbs are bad in (9a) and (10a), modal par-
ticles are fine (9b, 10b). (9c) and (10c) illustrate the prohi-
bition of particles between cliticized elements and their hosts.

(9) a. Naa   san   (*soosai) Muusaa
         INFL know   really   M.
         'I really know Musa.'

     b. Naa san (fa) Muusaa.
                  PRT
         'I know Musa.'

     c. Naa san (*fa) shi.
         'I know him.'

(10) a. Bai faɗaa wa (*jiya) maatarsa ba.
         INFL speak to yesterday woman-his NEG
         'He didn't speak to his wife yesterday.'

     b. Bai faɗaa wa (maa) maatarsa ba.
                       PRT
         'He didn't speak to even his wife.'

     c. *Bai faɗaa wa/ma maa ta   ba.
                     to   PRT her(Cl)
         'He didn't speak to even her.'

What is interesting is that although particles may appear between
wa (the indirect object marker) and the indirect object, as in (10b),
they may not appear between the verb and wa, as in (11b). (12 shows
that it is possible in principle to get particles between a verb and
a prepositional phrase.) This suggests that wa is part of the verb
(since, as explained above, the only time we can't get particles is
when the two elements are not separate words). (Notice that 10b
likewise suggests that the indirect object does not form a word
with wa and the verb; we will return to this point below.)[3]

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(11) a. Bai faɗaa (*<u>jiya</u>) wa maatarsa ba.

b. Bai faɗaa (*<u>maa</u>) wa maatarsa ba.

c. Bai faɗaa (*<u>maa</u>) mata ba.

(12) Mun sayar (<u>maa</u>) da dookii.
INFL sell PRT with horse
'We sold the horse.'

Another argument that <u>wa</u> is not the head of a PP and would better be considered as part of the verb is that when PP's are conjoined as in (13), the preposition may be repeated in the second conjunct. Yet, when indirect objects are conjoined, as in (14), <u>wa</u> may not be repeated in the second conjunct.

(13) Sun zaunaa [<u>bisa</u> teebur] da [(<u>bisa</u>) kujeeruu].
INFL   sit   on table and   on   chairs
'They sat on the table and (on) the chairs.'

(14) Sun nuunaa <u>wa</u> Aisha da (*<u>wa</u>) shuugabansu hootoo.
show to   to leader-their photo
'They showed Aisha and their leader a picture.'

Extraction facts offer further support for the hypothesis that <u>wa</u> is part of the verb. Generally, preposition-stranding is ungrammatical, as the sentences in (15) illustrate.

(15) a. *Gaa   mutumin$_i$ da na yi magaana da <u>e</u>$_i$
here's man-GEN[1]   INFL do speech with
'Here's the man I spoke with.'

b. *Inaa$_i$ suka zoo daga <u>e</u>$_i$
where[1] INFL come from
'Where did they come from?'

In cases which look like preposition-stranding, it can be shown that the structures actually involve incorporation of a preposition into the verb. One such case is that of causative verbs, which consist of a verb form plus the preposition <u>da</u> 'with'. The verb part has a short and a long form (see 16a, for example). In Standard (= Kano) Hausa, represented in (16), the vowel length of the preposition <u>da</u> remains constant with both long and short forms with all types of following complements (whether lexical NP, pronoun, or empty category). Notice also that the pronoun in (16b) is in the independent form, which is the form of the pronoun typically used after prepositions. (16c) shows that in this situation, the preposition <u>da</u> may not be stranded.

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(16) a. Naa {gayar / gai} da Haliima.
         INFL greet with H.
         'I greeted Halima.'

      b. Naa {gayar / gai} da ita.
                            her (Indep. pn.)
         'I greeted her.'

      c. *Waa$_i$ ka {gayar / gai} da e$_i$?
              INFL
         'Who did you greet?'

In other dialects of Hausa, with the short form of the causa-
tive there is an alternation in the vowel length of <u>da</u>. It is
short before a lexical NP, as in (17a), and long before a pronoun
or an empty category as in (17b) and (c). This alternation in
vowel length is identical to that found in the final vowel of verbs
such as <u>kaamaa</u> 'catch' in (18). Notice also in (17b) that a clitic
pronoun--the type usually used for a direct object of a verb (see
18b)--is used after the causative. In this dialect, "stranding"
is possible, as (17c) shows.

(17) a. Naa gai<u>da</u> Haliima.   (18) a. Naa kaam<u>a</u> good̃iyaa.
                                              'I caught the mare.'

      b. Naa gai<u>daa</u> ta.   b. Naa kaam<u>aa</u> ta.
                 her (Cl)   'I caught her.'
      c. Waa$_i$ ka gai<u>daa</u> e$_i$?   c. Waa$_i$ ka kaam<u>aa</u> e$_i$?
                                              'Who did you catch?'

Apparent preposition-stranding thus occurs in the dialect in
which the "preposition" behaves in all ways like the final syllable
of a verb, whereas in the dialect in which the preposition behaves
in all ways like a preposition, stranding is impossible. Given
the conclusions suggested above by the modal particle facts and the
PP conjunction facts with regard to <u>wa</u>, we would expect that <u>wa</u>,
which was argued to be part of the verb, can be stranded, while <u>ga</u>,
the head of a PP, cannot. This is just what we find as (19) shows.
Also expected is the ungrammaticality of (20a), where <u>wa</u> is pied-
piped; (20b) is fine since 'ga NP' is a PP.

(19) a. Waa$_i$ Ali ya   [nuunaa wa] e$_i$ hootoo?
                  INFL   show   to   photo
         'Who did Ali show the picture?'

      b. *Waa$_i$ Ali ya nuuna hootoo [ga e$_i$]?
         'Who did Ali show the picture to?'

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(20) a. *Wa waa Ali ya [nuunaa __] __ hootoo?
      to who A. INFL show   photo
      'To whom did Ali show the picture?'

      b. [ga waa$_i$] Ali ya nuuna hootoo e$_i$
         'To whom did Ali show the picture?'

So far, arguments for the structure in (21) have been presented.

(21) Ali yaa [nuunaa wa] [$_{NP_1}$ Aisha] [$_{NP_2}$ hootoo]

Notice that this structure is at least superficially similar to English double object constructions and with them also poses a problem for the Adjacency Condition approach. However, neither Stowell's (1981) NP-incorporation analysis of these structure in (22) nor Kayne's (1982) empty preposition analysis in (23) can be transferred to Hausa since while NP$_1$ is not extractable in English (24)--a fact reflected in both of these analyses--it $\underline{is}$ in Hausa as was shown in (19a) above.[4]

(22) John [$_{V'}$ [$_V$ showed [$_{NP_1}$ Mary]] [$_{NP_2}$ the picture][$\underline{e}_1$]]

(23) John showed [$_{s.c.}$ [$_{PP}$ $\underline{e}$ [$_{NP_1}$ Mary]] [$_{NP_2}$ the picture]]

(24) *Who$_i$ did John show e$_i$ the picture?'

English sentences such as (24) are ruled out on Stowell's analysis in (22) since Move α can't analyze NP$_1$ since it's a subpart of a word. (24) is out on Kayne's analysis since NP$_1$ in (23) is embedded on a left branch, a position from which there is no path to a possible antecedent under the Connectedness (Kayne 1983) approach to the sanctioning of empty categories.

What, then, is the correct structure for Hausa dative constructions given the existence of general principles which derive the effects of the categorial component? (23) and (24) have just been ruled out. The impossibility of (23) for Hausa seems to indicate that the Adjacency Condition, rather than requiring linear adjacency, would best be thought of as requiring hierarchical adjacency. Such a view is embodied in Kayne's use of the Unambiguous Paths Condition, The Case Resistance Principle, and the X° requirement on Case and θ-role assignment. If these principles are accepted, then the only possible structure for Hausa datives is that in (25c). (25a and 25b are ruled out by the UPC and the X° governor requirement respectively.)

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(25) a. *

         V-wa   NP$_1$ NP$_2$

b. *

         V'

     V-wa   NP$_1$ NP$_2$

c.

        V-wa   NP$_1$ NP$_2$
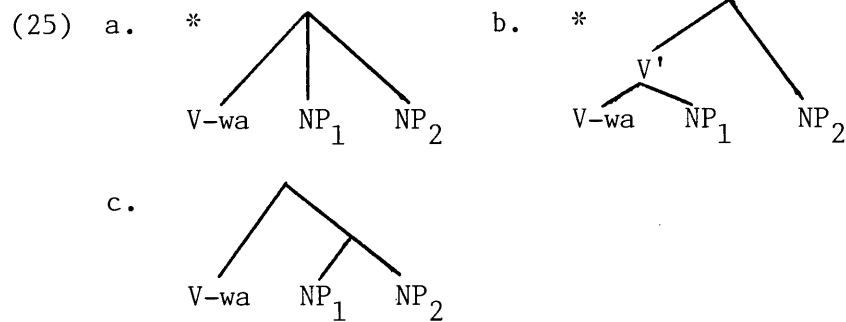
Independent support for the small clause analysis of NP$_1$ and NP$_2$ comes from the fact that while an adverb or an adverbial reflexive may intervene between the direct object and a following indirect object, as in (26), they may not between NP$_1$ and NP$_2$ of the small clause in (27).

(26) a. Mun   nuuna [hootoo]   maza/jiya   [ga Aisha].
         INFL show   photo   quickly/yesterday to A.
         'We showed the picture to Aisha quickly/yesterday.'

    b. Ali yaa   nuuna [hootoo] da kansa   [ga Aisha].
         INFL   with himself
         'Ali showed the picture himself to Aisha.'

(27) a. *Mun nuuna wa [Aisha maza/jiya hootoo].

    b. *Ali yaa nuunaa wa [Aisha da kansa hootoo].

If the structure of wa-datives were that in (25a), we'd expect the adverbs to occur anywhere within the VP. The fact that they cannot is reflected by the small clause analysis. (See Stowell 1982) for similar arguments for small clause structure in English.)[5]
    There are other small clauses of the form 'NP NP' in Hausa, as the examples in (28) illustrate. The difference between these small clauses and the dative small clauses is that dative small clauses have a possessive interpretation--that is, NP$_1$ is taken to be the possessor (in a loose sense) of NP$_2$--whereas the small clauses in (28) are interpreted as predicative.[6]

(28) a. Mun ɗauki [Ali waawaa].
         INFL take   A. fool
         'We consider Ali a fool.'

    b. Sun   saa [Ali shuugabansu].
         INFL put   A. leader-their
         'They made Ali their leader.'

Kayne (1982) suggests that small clauses are interpreted as possessive if the subject is a PP headed by an empty preposition and predicative if the subject is an NP. This characterization

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accounts for differences between English, which has both kinds of
small clauses, and French, which only has predicative ones, since
English, but not French, allow empty P's to function as Case trans-
mitters (see Kayne 1982 for details). However, we have seen that
Hausa has possessive small clauses whose subject does not contain
an empty preposition.

There are also cases in English and in French, Kayne notes,
where an NP without an empty preposition or inherent Case (as in
German) does have a possessor thematic role. Examples include the
subject of the verb 'have' and the object of verbs which take 'with'/
'de' in their complements, as in (29) (from Kayne 1982).

(29) a. John supplied Mary with the information.

      b. Jean a gratifié son fils d'un bonbon.

It is suggested that is is de and with that make the empty prepo-
sition unnecessary for the assignment of the possessor thematic
role. The parallel with Hausa wa seems obvious. On this view,
Hausa simply has a much more generalized way--adding wa--of making
verbs which allow the possessor θ-role to be assigned to the subject
of a small clause complement.

At this point, we will consider exactly what "adding wa" en-
tails. I will assume, largely following Marantz' (1981) use of
Lieber's (1980) morphological feature percolation conventions, that
the features of an affix percolate over those of the root just in
case there is a conflict. If, however, there is no over-lap of
features, then the root's features may percolate. In Hausa, Case-
assigning and θ-role-assigning features of both the root and wa
percolate since they do not over-lap. Then, under some suitably
defined notion of boundary transparency (which won't be developed
here, but which clearly is independently needed), the complex verb
governs NP_1 and NP_2 in conformity with Vergnaud's principle that
linguistically significant relations are one-to-one in character
(since two different Cases and θ-roles are being assigned by two
different elements).

(30)
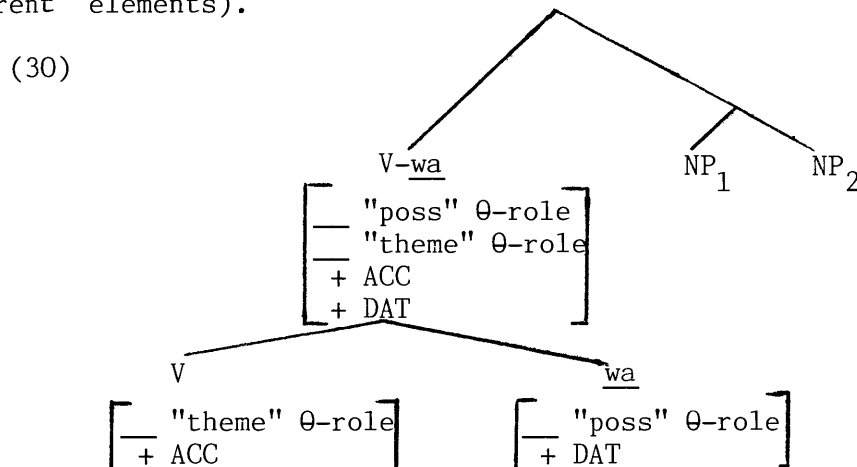
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In order to prevent the order 'NP$_2$ NP$_1$' in Hausa (and in English--'*I gave a book Mary.') it seems to me that one must appeal to markedness principles regarding semantic roles and syntactic expression of them. Subjects, of which NP$_1$ is one on the small clause analysis, are generally the expression of agents, experiencers, possessors, whereas objects are the canonical position of themes and patients. However such notions are to be articulated in the theory (and it seems clear that they need to be independent of small clause structures), they would govern the correct ordering of arguments in possessive small clauses.[7]

Now, since there is an independent mechanism for Case and θ-role assignment, the question of the status of <u>wa</u> has a ready answer. If we assume that traces occur only where required by the Projection Principle, then no trace of <u>wa</u> is needed. Therefore, <u>wa</u> must be an affix. Perhaps, in general, cliticization can be distinguished from morphological affixation on the basis of the requirements of the Projection Principles (see Borer, to appear). Another property that seems to follow from this is that while under certain (pragmatic) conditions the argument corresponding to a clitic may itself be spelled-out instead of the clitic, this is not possible for affixes. In French, for example, it is possible to spell-out subject and dative clitics in their argument positions rather than as clitics, as in (31). (32) shows that when a preposition acts like an affix rather than a clitic, it does not have the possibility of appearing where syntactic prepositions may.

(31) a. <u>Lui</u> va au restaurant; <u>eux</u> vont au cinéma.
          (cf. <u>Il</u> va au restaurant; <u>ils</u> vont au cinema.)

      b. J'ai donné le livre <u>à elle</u>.
          (cf. Je <u>lui</u> ai donné le livre.)

(32) a. *Up the number is what he looked.
          (cf. Up in the air is where he wants to be.)

      b. *Wa Aisha ya nuuna hootoo.
          'To Aisha, he showed the picture.'

Hausa <u>wa</u>, then, is the result of a morphological rule. This rule applies rather late; there are phonological as well as certain morphological rules which apply before it (see fn. 1). Notice that a 'level ordering' view of the lexicon (such as that proposed in Allen 1978) makes it possible to characterize the various stages of incorporation of an affix. The <u>da</u> suffix in (17) can be viewed as having moved up a level from <u>wa</u>-incorporation since it undergoes phonological rules (regarding final vowel length--see discussion above) which <u>wa</u> does not.[8]

It has been shown that Hausa datives, at first glance a problem for the derivation of complement order by general principles,

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in fact are well-behaved given preposition incorporation and a small clause analysis, both of which have independent motivation.[9/10]

FOOTNOTES

[1]A view similar to this is expressed by other Hausaists such as Parsons (1971/72) who argues that wa is "some sort of verbal suffix or extension". Parsons' evidence includes the modal parti- cle facts mentioned in this paper and the fact that in speech a pause is possible between wa and the following NP, but not between the verb and wa. Newman (1982, fn.7) notes an apparent problem with this view of wa. There is a rule of Low Tone Raising (Leben 1971) in Hausa which changes word final low-low to low-high when the final vowel is long. This rule does apply to verbs before wa and therefore, argues Newman, wa cannot be a "bound clitic".

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(i)   /karantaa  wa/    'read to'
       H L  L    L

              H          Low Tone Raising

      [karantaa wa]
       H L  H   L
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Newman's objection assumes that cliticization (or affixation) of wa would entail obliteration of a word boundary (however these are to be represented). If instead we assume, on a level ordering view of the lexicon (Allen 1978), that Low Tone Raising applies on a level before the level at which wa attaches, then there is no problem.

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(ii)  [ [karantaa] wa ]
          H L  L    L

                 H           Low Tone Raising

      [karantaa wa]
       H L  H   L
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A more thought-provoking problem (also noted by Newman 1982) for the view that wa is incorporated into the verb is that when the "dummy" verb yi 'do' is "deleted" (possible only with certain aspects), the wa remains.

(iii) Munaa (yin) aikii.   'We are doing work.'

(iv) Munaa (yi) *(wa) Ali aikii. 'We are doing work for Ali.'

This is clearly a problem if one views absence of yi as deletion since deletion would presumably delete the entire category verb and not a sub-part of it. It seems to me that we can view an em- ty yi as analogous to base-generated empty NP's (pro) which also

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participate in the argument structure of the sentence (they may absorb θ-roles and empty yi may assign a θ-role). This means that in (iv), we have $'[_V[_V\ e]\underline{wa}]'$; if $\underline{wa}$ were absent then NP_1 (Ali) would not be assigned a θ-role (or Case) and the sentence is thereby ruled out.

[2] The modal particles in Hausa ($\underline{dai}$, $\underline{fa}$, $\underline{koo}$, $\underline{kuwa}$. $\underline{kuma}$, and $\underline{maa}$) generally add an emphatic or contrastive meaning, though their omission does not change the sentence meaning. They appear literally anywhere except sentence initially, within a word, or between a clitic and its host. Examples of possible environments follow.

    (i) $[_{PP}$ ga $\underline{fa}$ Audu]   'to Audu'
                  to $\overline{PRT}$ A.

    (ii) [gidaa $\underline{maa}$ na Aisha] 'Aisha's house'
           house $\overline{PRT}$ of A.

    (iii) [gidan $\underline{maa}$ Aisha] 'Aisha's house'
           house-of $\overline{PRT}$ A.

    (iv) Naa $\underline{dai}$ tafi.   'I went.'
           INFL $\overline{PRT}$ go

[3] It should be noted that although it's clear why true adverbs cannot intervene in (9) and (10), it hasn't been made clear why particles can. The minimum conclusion we can reach from the above facts is that a particle forms a constituent with one of the elements it can intervene between. It is plausible to suppose that a particle can be regarded as (some sort of) specifier of any category. (R. Kayne has pointed out to me that in this sense, they are perhaps similar to, though more versatile than, $\underline{only}$ in English). The idea is that particles don't actually intervene because they are constituents with other elements. The point here is that since particles may intervene anywhere except within words (or complex words), the fact that they can't come between the verb and $\underline{wa}$ indicates that these two form a word.

[4] There are speakers for whom (24) is acceptable. Stowell (1981) argues that speakers "read in" the presence of a preposition (on analogy with 'Who did John show the picture to?'), noting that such sentences are much worse with long extraction and impossible when there is no corresponding structure with a stranded preposition ('*Who don't you begrudge his wealth?').

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[5]Other predictions of the small clause analysis include Subject (Left Branch) Condition effects and, possibly, opacity effects. Dative small clauses in English do display Subject Conditions Effects, as expected.

(i)   Who did John give close friends of Bill a book about __ ?

(ii) *Who did John give close friends of __ a book about Mary?

(iii) Who did John give a book about __ to close friends of Bill?

Subject condition effects are difficult (impossible?) to find in Hausa dative small clauses since preposition stranding is impossible, as we have seen, and since pied-piping of possessors is also bad.

(iv) *Na wa(ye) ka karanta littaafii.
of who   INFL read   book
'Whose book did you read?'

The most that can be said is that Hausa does not display violations of the Subject Condition in dative small clauses.
Small clauses may define opaque domains for the Binding Theory (see Chomsky 1981 on Binding Theory), as Stowell (1983) notes.

(v)   John made [$_{s.c.}$ Sally [angry at *himself]
                                             him

It seems to me that such effects occur in dative small clauses as well even though there is no governor contained by the small clause. (Note that the emphatic use of the reflexive must be filtered out.)

(vi) *They sold [the slave owner themselves]
                                     each other

(vii) They sold themselves/each other to the slave owner.

Kayne notes the same results with passive:

(vii) *The money was credited [$_{s.c.}$ somebody [with __] by the bank.

(viii) *A book was given [$_{s.c.}$ Mary __].

Hausa has no syntactic passive and thus parallels to (viii) are not available. Preliminary checking indicates that overt anaphors are not possible in the predicate position of dative small clauses, as in English.

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(ix) *Taa nuunaa wa [$_{s.c.}$ Ali kanta]
      INFL show to   A. head-her (REFLEX)
      'She showed Ali herself.'

 (x) Taa nuuna kanta ga Ali.
      'She showed herself to Ali.'

See Tuller (1983) for further discussion and for implications of dative small clause facts for the definition of Governing Category.

[6]In fact, the term "affectee" may be more appropriate since the dative argument in Hausa may be a recipient, benefactee, malefactee, deprivee, etc.. See Newman (1982) for discussion and examples. I will continue to use the term "possessor" in this (very) loose sense.

[7]Bantu language have an "Applied" verbal affix which looks a lot like Hausa wa. However, in some languages, under certain conditions, the order of the bare NP complements may be free ('NP$_1$ NP$_2$' or 'NP$_2$ NP$_1$'). Bantu languages as well as Hausa also have classes of verbs (with inherent dative meaning, perhaps) which allow two bare arguments without the dative affix. See Tuller (1983) for discussion and analysis of both of these facts.

[8]Newman (1971, 1983) suggests, on comparative evidence that it was Standard Hausa which reinterpreted the -da causative affix as the preposition da rather than other dialects having incorporated a preposition into the verb. The order of change is irrelevant to our point here.

[9]The canonical Chadic dative construction is 'V NP PP$_i$'/ 'V-pn$_i$ NP' (as in French). See Newman (1982) and Tuller (1983) for discussion of the diachronic development of Hausa in this respect.

[10]I would like to thank H. Borer, R. Kayne, P. Newman, R. Schuh, T. Stowell and the participants of the UCLA Syntax-Semantics Seminar (Fall 1983) for valuable comments on the issues discussed in this paper. I am also grateful to S. A. Sufi, my language consultant, for assistance on the Hausa data. All remaining problems in the paper are my own.

REFERENCES

Allen, M.R. (1978) Morphological Investigations. PhD diss., U. Conn.

Borer, H. (to appear) Parametric Syntax. Dordrecht: Foris Publications.

Chomsky, N. (1981) Lectures on Government and Binding. Dordrecht: Foris Publications.

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Kayne, R. (1981) "Unambiguous Paths" in J. Koster and R. May (eds.) Levels of Syntactic Representation. Dordrecht: Foris Publications.

Kayne, R. (1982) "Le datif en francais et en anglais," Revue Romane.

Kayne, R. (1983) "Connectedness," Linguistic Inquiry 14.2.

Leben, W. R. (1971) "The Morphophonemics of Tone in Hausa," in C.-W. Kim and H. Stahlke (eds.) Papers in African Linguistics. Edmonton: Linguistic Research, Inc.

Lieber, R. (1980) On the Organization of the Lexicon. PhD. diss., MIT.

Marantz, A. (1981) On the Nature of Grammatical Relations. PhD. diss., MIT.

Newman, P. (1971) "Transitive and intransitive in Chadic languages," in V. Six et al (eds.) Afrikanische Sprachen und Kulturen-Ein Querschnitt. Hamburg: Deutsches Institut fur Afrika-forschung.

Newman, P. (1982) "Grammatical Restructuring in Hausa: Indirect Objects and Possessives," Journal of African Languages and Linguistics 4.

Newman, P. (1983) "The Efferential (Alias 'Causative') in Hausa," in E. Wolff and H. Meyer-Bahlburg (eds.) Studies in Chadic and Afroasiatic Linguistics.

Parsons, F.W. (1971/72) "Suppletion and Neutralization in the Verbal System of Hausa," Afrika und Ubersee 55.

Stowell, T. (1981) Origins of Phrase Structure. PhD. diss., MIT.

Stowell, T. (1983) "Subjects Across Categories," Linguistic Review 2.3.

Tuller, L. (1983) "The Dative Small Clause Hypothesis: Evidence from Chadic and Bantu," ms., UCLA.