I. Abstract:

The purpose of this paper is to examine the relative clause in kunuz Nubian. The first part of the paper will involve looking at the morphological and structural character of Nubian relative \(^1\). Once these points are established, some other syntactic issues will be taken up. In particular, some attention will be directed toward the issue of movement in relative clauses and how it compares with other constructions in the language.

II. Basic Facts:

Nubian is a language of the Nilo-Saharan family spoken in Northern Africa, in the area of Sudan. The basic word order is Subject-Object-Verb. Nominals in nominative case bear no overt marker. Nominals in the object position of transitive verbs bear the marker -gi, or its allomorphic variants (-ki, -ti, -di).
(1) (a) id dio-s-u
    man die-PST-3s
    "The man died."
(b) e:n nog-s-u
    woman go-PST-3s
    "The woman went."
(c) tod ai-gi jom-s-u
    boy I-ACC hit-PST-3s
    "The boy hit me."
(d) ay gani:r-ki tog-s-i
    I Knife-ACC Break-PST-1s
    "I broke the knife."

Relative clauses in Nubian appear with one of two possible markers—-L and -n. These markers are affixed to the end of the verb complex of the relative clause, and they are not interchangeable.

(2) (a) i. tod e:n-gi jom-e-l nog-s-u
    boy woman-ACC hit-PST-R go-PST-3s
    "The boy that hit the woman left."
ii. *tod e:n-gi jom-s-n nog-s-u
(b) i. ay tod e:n -gi jom-e-L-gi nal-s-i
    I boy woman-ACC hit-PST-R-ACC see-PST-1s
    "I saw the boy that hit the woman."
ii. *ay tod e:n-gi jom-s-i-n-gi nal-s-i
(*: for the reading in 2.b.i; yields complement reading, "I saw that the boy hit the woman.")

(c) i. tod e:n jom-s-i-n nog-s-u
boy woman hit-PST-3s-R go-PST-3s
"The boy that the woman hit left."

ii. *tod e:n jom-e-l nog-s-u

(d) i. id tod e:n jom-s-i-n-gi nal-s-u
man boy woman hit-PST-3s-ACC see-PST-3s
"The man saw the boy that hit the woman."

ii. *id tod e:n jom-e-l-gi nal-s-u

The impression that one might draw initially from these examples is that -1 marks the head of the relative as subject of the relative clause, whereas -n marks the head as object of the clause. In other words, the difference between -1 and -n is equivalent to the difference between who and whom in English. However, recall that Sentence (2.b.ii) does not mean the same thing as its counterpart with -1 marking, but it is still a grammatical formation. This fact leads us to believe that the use of -n may be more general than has been suggested. When further data is examined, the indication is that -n not only marks
complement clauses and direct object, but oblique relations in relative clauses as well.

(3) (a) i. ay gani:r tek-ken mer-s-i-n-gi tog-s-i
    I knife I 3s-INST cut-PST-1s ACC break-PST-1s
ii. *ay gani:r ay tek-ken mer-e-i-gi tog-s-i
(b) i. id tenno -joro ta:-s-i-n dio-s-u
    man 3e(POSS) -BEN come-PST-1s-R die-PST-3s
    "The man whose sake I came for died."
ii. *id tenno-joro ta:-e-l dio-s-u
(c) i. id ay tek-odon baig- s-i-n-gi nalli-s-a
    man I 3s -POST speak-PST-1s-R-ACC injure-PST-3p
    "They injured the man that I spoke with."
ii. *id ay tek-odon-baig-e-l-gi nalli-s-i

We can recharacterize the relative markers as:

(4) -l marks the head of a relative as a subject of the relative clause.
-n marks the head of a relative as a non-subject of the relative clause.

The additional case of -n marking in complement clauses includes double accusative marking; the first -gi marks the object of the
transitive verb (if there is one) of the relative clause, and the second -gi appears at the end of the relative's verb complex to mark the entire clause as a sentential object.

III. Clause Structure:

Presented with the morphological equations in relative clauses (i.e., -l = subject; -n = non-subject) and the position of these markings in the linear ordering of elements (i.e., after the tense marking of the relative predicate and before any marking the modified nominal might receive in the matrix), how might the structure of the relative clause be diagrammed? One possibility would be analogous to the English relative, in which the relative pronoun is base-generated in position according to regular phrase structure and then moved into complementizer position. The only difference would be that WH-Movement is to the left in English, but to the right in Nubian.

(5) (a) I saw the man [+WH [who hit the boy]]

\[\Rightarrow\] WH-Movement

I saw the man [who [ hit the boy]]
(5) (b) ay id [-l tod-ki jom-e-] +WH]-gi nal-s-i
      I man R boy-ACC hit-PST see-PST-1s
           =========> WH-Movement
      ay id [—— tod-ki jom-e-] ] gi nal-s-i

(6) (a) I saw the man[=WH [the boy hit whom]
           =========> WH-Movement
      I saw the man[whom[the boy hit ]

(b) ay id [tod -n jom-s-i-] +WH]-gi nal-s-i
      I man boy R hit-PST-3s ACC see-PST-1s
           =========> WH-Movement
      ay id [tod — jom-s-i- ]n]-gi nal-s-i

We can diagram the structure as:

(7) (a) subject Relative
      S
      / \ COMP
     |   |
    N-gi v
   ay
 id
N
(-1) tod

(b) Object Relative
      S
      / \ COMP
     |   |
    N-gi v  nal
   ay
 id
N
tod (-n)
A more problematic concern in this regard is the structure that can be attributed to complement clauses and obliques. In these cases, it seems that the only analysis possible is one in which the marker -n is base-generated in the complementizer position. This analysis is necessitated because both complement clauses and relatives formed on obliques would have all other nodes filled by other lexical items.

(8) ay [id tod-ki jom-s-i-] -n]-gi nal-s-i
    I man boy-ACC hit-PST-3s R -ACC see-PST-1s
    "I saw the man hit the boy."

(9) ay id [tod tek-oden baig-s-i]-n]-gi nal-s-i
    I man boy 3s-POST speak-PST-3s-R -ACC see-PST-1s

These sentences would be assigned the following structures:

(10) (a) Complement Clause

(b) Oblique Relative
These structures account for all of the elements that are present. However, they also suggest that complement clauses and relatives formed on obliques from a class of embedded clausesparate from the subject- and object-relatives previously diagrammed. That is, the former are generated with an empty COMP node, but the latter are generated with an empty COMP node that is filled by a subsequent operation of movement. In effect, this analysis forces us to make a distinction among the non-subject relatives that were earlier established as a single morphological class.

An alternative that could be proposed is that all embedded clauses are generated with -n in the COMP node, and subject relatives somehow replace the base-generated complementizer with the appropriate -1 marker. This analysis offers no advantage in terms of uniformity, since it also forces a distinction among relatives, although in this case the distinction would parallel the subject/non-subject morphological classification. In addition, it poses a problem in how to account for the deletion of -n.
IV. Movement, Relativization and Question Formation:

In English both relativization and question formation are proposed to be the product of the same syntactic operation—WH-Movement. In both constructions the wh-pronoun is moved to the left into the clause-initial COMP position. By contrast, in Nubian relativization appears to take place in a movement operation to the right, as shown. Yet question formation in Nubian parallels the leftward movement of English.

(11) a. ni buru-gi jom-ma?
Q girl-ACC hit-INT
"Who hit the girl?"

b. ni-gi id jom-ma?
Q -ACC man hit-INT
"Who(m) did the man hit?"

c. ni-godon tod baig-ma?
Q-POST boy speak-INT?
"Who(m) did the boy speak with?"

How do we explain the difference in the direction of movement? The immediate explanation that comes to mind is that relativization is a totally different syntactic operation
from question formation. Relativization is the equivalent of WH-Movement, in which the nominal is moved into COMP. In Nubian, such movement would be to the right. On the other hand, question formation would be a case of NP Movement, movement into some empty node. Evidence from Raising phenomena indicates that NP Movement does indeed operate leftward.

(12) ay hesbe: -s-i [tod buru-gi jom-s-u-man]
    I believe-PST-1s boy girl-ACC hit-PST-3s-INF
    Raising (NP Movement)

    ay tod-ki hesbe: -s-i [(ter)buru-gi jom-s-u-man
    "I believed the boy to have hit the girl."

The similarities in the direction of movement for nominal in Raising and question formation suggest that they may be the product of a single operation--NP Movement.
1- Greenberg (1966) claims that in S O V languages, the modifiers precede the head noun. However, this claim is not true of KN in which the relative clause follows the noun, e.g.

(i) e:n it-ti jom-el
   woman man-Acc hit-Rel
   "The woman who hit the man."

2- Relative clauses in Dongolese (Armbruster 1960, Tucker and Bryan 1966:325) are marked by a series of Teneese in both Aspects: Imperfect and Perfect.

3- Since relative clauses are considered complex noun phrases, they are expected to obey the island constraints (posited by Ross 1967) which claims that no element can be moved out of a relative clause (an island). That they do can be seen in clauses like (iib) where no nominal can be moved out of a relative clause. Wh-movement is not expected to apply to relative clauses:
(ii) a. e:n (it-ti ganni:r-ken) jom-el
   woman man-Acc knife-instr hit-Rel
   "The woman who hit the man with
    the knife."

   b. *ni:-g e:n (---ganni:r-ken jom-el)
   who-Acc woman knife-instr hit-Rel
   lit."Who the woman who hit the
    knife."
REFERENCES


Greenberg, J. 1966. The Languages of Africa. Bloomington :

