PHANTOM ARCS IN SOUTHERN TIWA

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1. The problem

There are a number of verbs in this language which require no overt direct object (DO), nor do the semantics seem to call for one, yet these verbs always take agreement prefixes which other verbs exhibit only if they have a DO.

2. The plan

In this paper we will compare two grammars, one in which certain verbs are simply marked as taking these unexpected prefixes, and another in which these verbs have initial DO arcs headed by silent nominals. We will refer to these as the lexical diacritic and phantom arc analyses, respectively. Arguments in favor of the phantom arc analysis will be based on syntactic rules which make crucial reference to the presence of an initial DO.

3. Background

Verbs in Southern Tiwa take prefixes which agree with final subjects (SU) and DO's, as illustrated in (1) - (10):

(1) 'Uide φ-'aru-ban.
   child A-cry-pst
   The child cried.

(2) 'Umnin i-'aru-ban.
   children B-cry-pst
   The children cried.
(3) Te-'aru-ban.
   ls-cry-pst
   I cried.

(4) Ti-mu-ban seuanide.
   ls:A-see-pst man
   I saw the man.

(5) Bi-mu-ban seuanin.
   ls:B-see-pst men
   I saw the men.

(6) A-mu-ban seuanide.
   2s:A-see-pst man
   You saw the man.

(7) ṭi-mu-ban seuanin.
   2s:B-see-pst men
   You saw the men.

(8) Te-keuap-mu-ban.
   ls:C-shoe-see-pst
   I saw the shoes.

(9) Ku-keuap-mu-ban.
   2s:C-shoe-see-pst
   You saw the shoes.

(10) U-keuap-mu-ban.
    3s:C-shoe-see-pst
    He saw the shoes.

Southern Tiwa nouns are of three classes, which we designate i, ii, and iii. (Class i consists of all and only nouns with animate denotata. Membership of nouns in classes ii and iii is largely arbitrary.) For purposes of verb agreement, the language reduces the six possible combinations of number (singular vs plural) and noun class to three. These are usually labelled A, B, and C by Tanoanists, and are composed
as follows: A=is/iis; B=ip/iiis; and C=iip/iiip. Consequently, (11) takes the same verb prefix as (5), because keuap belongs to class iii.

(11) Bi-keuap-mu-ban.

1s:B-shoe-see-pst

I saw the shoe.

4. The "irregular" verbs

There are at least a dozen verbs (and probably more than that) which, while having no overt initial DO, take agreement prefixes which, with "regular" verbs, agree with an initial DO of sets A or C. One of these irregular verbs is thum follow. As (12) - (14) show, this verb takes the same prefixes seen in (8) - (10), even though it has no overt DO.

(12) Te-thum-ban {seuanide-'an/seuanin-'an}.

1s:C-follow-pst {man-with / men-with}

I followed the {man/men}.

(13) Ku-thum-ban seuanide-'an.

2s:C-

You followed the man.

(14) U-thum-ban seuanide-'an.

3s:C-

He followed the man.

Clearly, the verb is not agreeing with man; man is an A and would call for the same prefix as in (4); furthermore, (12) shows that varying the number of man has no effect upon the verb prefix.

D'am help is like thum follow, except that it occurs with a nominal flagged by ay to rather than an with:

(15) Te-d'am-ban {seuanide-'ay/seuanin-'ay}.

1s:C-help-pst {man-to / men-to}

I helped the {man/men}.

(16) Ku-d'am-ban seuanide-'ay.

You helped the man.
There are several other verbs which act as if they have a covert C as initial DO, but require advancement of an initial indirect object (IO) (see 6.1 below). And all of the verbs we have found which act as if they have a covert A as initial DO also require advancement of what is evidently an initial IO.

5. The phantom arc analysis

At first glance, the most obvious way of dealing with verbs such as d'am help and thum follow is simply to class them as irregular verbs which take verb prefixes from a set which happens to be the same as the prefixes required for verbs with a C as DO. We will refer to this as the 'lexical diacritic' analysis. Alternatively, we can posit a silent (covert) nominal which is classed as a C as (initial) DO of these verbs. In arc pair grammar (Johnson and Postal 1981) terms, this would be a DO arc headed by a nominal which, while having no phonological realization (presumably because the arc is "self-erasing"), is a C. Thus the network of initial relations of (17) would be as in (18), where [C] is the silent nominal.

\[
(18)\quad \text{P SU DO IO}
\]

\[
\text{Ud'amban 'uide [C] seuanide'ay.}
\]

Because the head of the arc is never overt, we will refer to this as the 'phantom arc' analysis.

6. Arguments in favor of the phantom arc analysis

6.1 Advancement to DO

Every known advancement to DO in Southern Tiwa creates a chomeur. Thus in (20) an IO advances to DO (compare (19)) and in (22) a Benefactive advances to DO (compare (21)). In both cases the clause has an initial DO which is put en chomage by the advancement (see Allen and Frantz 1978 for discussion of examples like (20)). (The format of prefix glosses such as those in (20) and (22) will be explained in 6.2.)
(19) Ti-khwien-wia-ban  I-'ay.
   ls:A-dog-give-pst  2s-to
   I gave the dog to you.

(20) Ka-khwien-wia-ban.
   ls:2s/A-dog-give-pst
   I gave you the dog.

(21) Te-pan-pe-ban  'I-um'ay.
   ls:C-bread-make-pst  2s-for
   I made bread for you.

(22) Kow-pan-pe-ban.
   ls:2s/C-bread-make-pst
   I made you bread.

If there is an advancement of an oblique in a clause without initial DO, the advancement is to SU as in (24), not to DO as in (25) (Allen, to appear).

(23) Seuanide  φ-wan-ban  na-'ay.
   man  A-come-pst  ls-to
   The man came to me.

(24) In-seuan-wan-ban.
   ls/A-man-come-pst
   The man came to me.

(25) * Te-wade-ban  seuanide-ba.
   ls-come:pass-pst  man-instr
   I was come to by the man.

Given the constraint that advancement to DO must create a chomeur, the lexical diacritic analysis predicts that if the IO or oblique in clauses such as (12) - (17) advanced, it would necessarily advance to SU rather than DO, for under that analysis there is no initial DO. But the phantom arc analysis posits an initial DO, so this analysis predicts advancement to DO. And as (26) - (29) show, the oblique of (12) and the IO of (15) can advance to DO.
(We will not present the arguments here that man/men is the final DO in (26) - (29), but they are the same as given for IO to DO advancement in Allen and Frantz, 1978.)

Thus the existence of sentences such as (26) - (29) provides an argument for the phantom arc analysis and against the lexical diacritic analysis.

(26) Tow-thum-ban seuanide.
  ls:A/C-follow-pst man
  I followed the man.
(27) Mow-thum-ban seuanin.
  ls:B/C-follow-pst men
  I followed the men.
(28) Tow-d'am-ban seuanide.
  ls:A/C-help-pst man
  I helped the man.
(29) Mow-d'am-ban seuanin.
  ls:B/C-help-pst men
  I helped the men.

6.2 Initial absolutive agreement.

Southern Tiwa verbs agree with their initial absolutive whether or not it is a final term. Thus in cases of IO to DO advancement (Allen and Frantz 1978), Goal to SU advancement (Allen, to appear), and possessor ascension (Allen, Frantz, Gardiner, and Perlmutter, to appear), there is a special set of verb prefixes which agree with the initial absolutive as well as the final SU and (if any) final DO. Thus in sentences (20), (22), (24), and (26) - (29) above, the verb prefix is glossed (to the right of a slash) according to whether the initial absolutive is an A, B, or C (see section 3). The fact that, with advancement to DO, verbs such as d'am help and thum follow take these special prefixes (as seen in (26) - (29) ), provides an argument for the phantom arc analysis and against the lexical diacritic analysis, for only under the former analysis is there an initial DO. Furthermore, the particular verb prefix required is just that used when the initial DO is a C.

6.3 Possessor ascension

Allen, Frantz, Gardiner, and Perlmutter, to appear, find that possessor ascension in Southern Tiwa is limited to absolutive
hosts; i.e., the possessor of the head of a DO arc, or the possessor of the head of a SU arc in a stratum with no DO, ascends, as illustrated in (30) and (31), respectively.

(30) Ka-'u-mu-ban.

ls:2s/A-child-see-pst

I saw your child.

(31) In-'u-chia-piaw-m.

ls/A-child-sleep-pres

My child is asleep.

In (30) the verb agrees with the initial possessor (as final DO), as well as with both the initial (and final) SU (I) and the head of the initial DO (child). In (31), the verb agrees with the initial possessor (as final SU), as well as with the head of the initial SU. There are no cases of possessor ascension with an ergative host.

Given this constraint on possessor ascension, the lexical diacritic analysis predicts that the SU of clauses with d'am help and thum follow will host the ascension, because that analysis posits no initial DO and hence the SU would be an absolutive. Within the phantom arc analysis, however, the SU is an ergative because the phantom arc is a DO, so this analysis predicts that the SU cannot host possessor ascension. And possessor ascension is not possible, as (32) illustrates:

(32) *In-'u-d'am-ban seuanide-'ay.

ls/A-child-help-pst man-to

My child helped the man.

(32) has the form we would expect if the initial SU of help were an absolutive and possessed by first person. But because (32) is ungrammatical, this provides an argument against the lexical diacritic analysis and in favor of the phantom arc analysis.

6.4 Impersonal passives

Transitive verbs in clausal subjects are necessarily marked as passive if the downstairs SU is not specified (Allen and Frantz, to appear). This is not true of intransitive verbs; cf. (33) and (34):

(33) *In-'u-chia-piaw-m.

ls/A-child-sleep-pres

My child is asleep.
(33) Nad'ata-we-m \( \phi-'u'u-mike-hi-'i. \)
    hard-be-pres 3s-baby-feed:pass-fut-sub
    It's hard to feed the baby.

(34) Nad'atawem \( \phi-mi-hi-'i \) Phoenix-'ap.
    3s-go-fut-sub P.-to
    It's hard to go to Phoenix.

Given these facts, the lexical diacritic analysis predicts that if the downstairs verb is of the class seen in (12) - (17), it will not be passive. The phantom arc analysis predicts that such verbs will be passive. The fact that the downstairs verb of (35) is passive thus provides an argument in favor of the phantom arc analysis and against the lexical diacritic analysis.

(35) Nad'atawem ow-thum-be-hi-'i seuanide.
    3s/C-follow-pass-fut-sub man
    It's hard to follow the man.

7. Phantom arc for unspecified DO

If no nominal is specified as initial DO in a clause, the predicate of which usually requires an initial DO, the syntax of Southern Tiwa points to an analysis in which the initial stratum has a phantom DO arc headed by a C.

(36) Ku-g'ar-hi.
    2s:C-eat-fut
    You will eat.

(37) A-nabepey-g'ar-hi.
    2s:A-grape-eat-fut
    You will eat a grape.

(38) Ku-nabepey-g'ar-hi.
    2s:C-grape-eat-fut
    You will eat grapes.
(39) I-diru-g'ar-hi.
   2s:B-chicken-eat-fut
   You will eat the chickens.

Notice that although (36) and (38) take the same prefix, in (36) it is agreeing with a phantom DO, while in (38) it is agreeing with the plural DO 'grapes' (class ii).

8. Conclusion

We have given abundant syntactic evidence in section 6 for initial DO's in Southern Tiwa that are phonologically null. The fact that these DO's are not required by the semantics of their clauses makes it clear that the initial stratum in a relational grammar of Southern Tiwa cannot be equated with the semantic representation, nor can the latter completely determine the initial relations. The presence of initial phantom DO arcs with normally transitive predicates when no semantic patient is specified (section 7) adds further evidence, for we would otherwise expect the initial DO in such cases to be UN (Postal 1977).

FOOTNOTES

1Southern Tiwa is a Tanoan language. Data are from speakers at Isleta Pueblo, NM.

2If the goal could advance to DO, a sentence such as (25) would have to be passive because of the constraint against SU outranking DO on a "chain of being" hierarchy. See Allen and Frantz, 1978.

3Actually, (36) is ambiguous. It can also mean You will eat them; e.g. as an answer to the question, What am I to do with these grapes?

4A comment in Johnson and Postal 1981 might lead one to expect that one or the other of these statements is true.

5However, an analysis is possible for these with UN as initial DO if we add an additional rule to the grammar to the effect that agreement rules see UN as a C. (UN is Postal's symbol for a completely unspecified nominal.)
REFERENCES


__________. To appear. An impersonal passive in Southern Tiwa. To appear in Papers from the Conference on Syntax of Native American Languages, Cook and Gerdts (eds.).


