

COPULAR SENTENCES IN PIMA¹

Pamela Munro
U. C. L. A.

The intricacies of copular constructions are often ignored in grammatical descriptions, yet these constructions often reveal significant facts about a language's basic structural tendencies, and may shed light on questions of definiteness, stativity, "auxiliary" status, etc. I offer this description of the Pima copular construction as a model of how some of the information we need could be presented: I will discuss the construction in detail and then give some speculations about its origin.

In the excellent grammatical sketch in their Dictionary (1969), Dean and Lucille Saxton consider copular sentences in Papago and Pima (dialectally related languages of the Pimic or Tepimic branch of southern Uto-Aztecán, spoken in Arizona) to be merely a slightly irregular subtype of the verb-plus-two-nouns sentence pattern which they present as standard--so that a Papago copular sentence like their (1) (given here in the Hale/Alvarez orthography, a modified form of which I use for Pima)³ would be comparable to any other stative verb-plus-two-noun sentence (e.g. (2)) or to an ordinary transitive active one, like (3) (again, the examples are theirs):

- (1) K wud wakial g Pancho. 'And Pancho is a cowboy'
and cop cowboy art Pancho
- (2) 'Eñiga 'o g Pancho g jewed. 'Pancho has land'
have aux art Pancho art land'
- (3) Bei 'at g Pancho g wisilo. 'Pancho got the calf'
get aux art Pancho art calf

However, a comparison of (1) with (2)-(3) reveals several important differences, and shows that (1) must be a different kind of sentence entirely. First of all, in both (2) and (3) the first noun after the verb is the subject (in these sentences, the second noun is the object). As these examples show, Papago, like Pima, has no case marking, and (other discourse factors being equal) word order is usually a fairly good indicator of grammatical role: sentences (2) and (3) are VSO, one of the most common surface word orders in these languages. But there is no way in which the two nouns of sentence (1), wakial 'cowboy' and g Pancho, can be analyzed as the subject and object of that sentence. Clearly, in (1), it is the second noun, g Pancho, which is the subject, so that if wud is a verb with two nominal complements it must follow different patterns for the positioning of those nouns than do verbs like 'eñiga and bei.

The same problem arises with the alternative word orders possible for sentences like (1)-(3). (I am switching to Pima from here on, but most of the data is undoubtedly duplicable in Papago.) Although the Saxtons consider these languages to be underlyingly VSO, this is controversial.⁴ Active transitive sentences

with VSO order, like (3), have alternative versions with SOV and SVO order, as in (4)-(5):

- (4) Pancho 'o heg visilo bei. 'Pancho got the calf'
 Pancho aux art calf get
 (5) Pancho 'at bei heg visilo.
 Pancho aux get art calf

But similar reorderings of the verb and two nouns of a sentence like (1) are simply not possible: neither first noun (wakial) + second noun (g Pancho) + verb (wud) nor first noun + verb + second noun are possible alternative word orders. Nor are things much improved if we consider Pancho in its proper semantic role as subject: the order subject + other noun + verb is still no good. It appears that the only acceptable variant of a wud-first sentence like (1) has the order subject + wud + other noun:⁵

- (6) Pancho 'o wud vakial. 'Pancho is a cowboy'
 Pancho aux cop cowboy

Now that a bit of data has been presented, I should note a few basic facts about Pima/Papago structure. First, in almost all sentences an auxiliary element agreeing with the subject appears automatically in "second position", after the first word or constituent.⁶ Second, the Pima/Papago NP is routinely determined, usually by the preposed article heg (in Pima; Papago g), although this word is always deleted in sentence-initial position before a noun (cf. (4)-(6)).

However, (1) and (6) show that the article also fails to appear before the predicate noun: consider the unacceptability of

- (7) *Pancho 'o wud heg vakial. 'Pancho is a/the cowboy'
 Pancho aux cop art cowboy

My major criticism of the Saxtons' characterization of the Papago/Pima copular construction explains some of the problems just discussed: the copular element wud is not, in fact, a verb, and should not be expected to behave like one. The first argument in support of this claim is that wud cannot occur in the sentential configurations that other verbs can--it cannot immediately precede its subject, like the verbs in (2)-(3), for instance, and most strikingly it cannot freely occur sentence-finally, the way other verbs can (cf. (4)).⁷ Secondly, as the Saxtons point out, wud does not inflect for tense, aspect, or number the way other verbs do--in fact, the only inflection which occurs in (non-present) copular sentences shows up on the predicate noun:

- (8) J. P. 'at wud o vakial-k. 'J. P. is going to be a
 J. P. aux cop fut cowboy-stat cowboy'
 (9) Ian 'o wud vakial-ka-him. 'Ian used to be a cowboy'
 Ian aux cop cowboy-stat-cont

The third piece of evidence that wud is not an ordinary verb concerns its **reducibility**. In the Pima equivalent of the Papago sentence (1), with the copula initial, for instance, wud obligatorily reduces to D:⁸

- (10) D-o vakial heg Pancho. 'Pancho is a cowboy'
 cop-aux cowboy art Pancho

(Such reduction (to ud or simply d) is also possible when the copula is non-initial, but will not be indicated orthographically here.) In no other case that I know of in Pima does a full verb contract in this way, although a number of words that could be characterized as "particles" do exhibit just such behavior. The most easily documented reductions are those of locative/pronominal 'am and hab/'ab to initial M- and B- respectively, and other short pre-aux elements may also be argued to have such sources. However, in no other case does a full verb behave in this manner. The conclusion is inescapable: wud is not a verb.⁹

The fact that the subject occurs finally in a copula-initial sentence like (1), plus the fact that there are only two word orders for copular sentences, instead of the three usual for other sentences with two noun arguments, makes copular sentences more similar to intransitive than to transitive sentences. Intransitive sentences in Pima have just two basic orders, verb-last and verb-first, and in the second variant, of course, the subject must come at the end of the sentence. It seems clear that wud and the following predicate noun form a unit (as confirmed by the occurrence of verbal inflectional suffixes at the end of the whole wud-plus-noun phrase); the moveable constituent consisting of wud and the following noun is certainly unlike any other verb-plus-non-subject-complement I can think of in Pima. I would argue, in fact, that wud essentially serves as a predicator, marking the predicate noun as a verbal element. If all this is true, the word order problems discussed above do not arise; a simple copular sentence may be described as either predicate initial (e.g. (1) or (10)) or subject-initial (e.g. (6)).

But I don't want to imply that wud must always occur at the beginning of the predicate constituent. There is a regular syntactic process which relates sentences like (11a), in which wud precedes an entire complex predicate, and (11b), in which it appears just before that predicate's head, with no obvious change in meaning:

- (11a) Heather 'o wud s=keeg 'uuvi. 'Heather is a pretty
 Heather aux cop pretty woman
 girl'
 b) Heather 'o s=keeg wud 'uuvi.
 Heather aux pretty cop woman

(Clearly, a thorough investigation of the discourse constraints on this rule is called for, since it is most likely sensitive to subtle changes in scope or focus.) Note, incidentally, that the same

relationship can hold between pairs of predicate-initial sentences:

- (12a) D-o s=keeg 'uuvi heg Heather. 'Heather is a pretty
 cop-aux pretty woman art Heather girl'
 b) S=keeg 'o wud 'uuvi heg Heather.
 pretty aux cop woman art Heather

For simplicity of presentation, most of my discussion below will be restricted to predicate-final copular sentences. But, except where noted, these all have predicate-initial variants (with the auxiliary again in second position, as expected). It may turn out that some of the data I discuss here will prove relevant to the question of Papago/Pima's basic word order, but that is not the point at issue here.

The difficulty of stating the rule of Wud Movement comes with negative sentences. First consider simple examples like

- (13a) Eric 'o wud pi sa'i Pima. 'Eric is not a Pima'
 Eric aux cop neg neg₂ Pima
 b) Eric 'o pi wud sa'i Pima.
 Eric aux neg cop neg₂ Pima
 c) *Eric 'o pi sa'i wud Pima.
 Eric aux neg neg₂ cop Pima

(14) gives more data, for negative sentences whose predicates are complex:

- (14a) Mondelai 'o wud pi sa'i 'alha'as kiihim. 'L. A. is
 L. A. aux cop neg neg₂ little city not a
 b) Mondelai 'o pi wuḍ ṣa'i 'alha'as kiihim. small
 L. A. aux neg cop neg₂ little city city'
 c) *Mondelai 'o pi ṣa'i wud 'alha'as kiihim.
 L. A. aux neg neg₂ cop little city
 d) Mondelai 'o pi ṣa'i 'alha'as wuḍ kiihim.
 L. A. aux neg neg₂ little cop city

These variations cannot be explained simply by the rule of Wud Movement we appealed to before, the one which creates sentences in which wud immediately precedes the head noun of the predicate noun phrase: Such a rule would produce (14d), but why should (13c) be unacceptable? Further, what produces the variation in the (a-b) pairs? To explain these facts, we must consider Pima negation in more detail.

The Pima negative element is pi, a true simple negative which can be used to negate some sentences all by itself, sometimes with a slight change in meaning from the sentence with a pi...ṣa'i negative--cf. (15a-b) and (16a-c):

- (15a) Allen 'o pi sa'i ñeid heg cuuv cioj. 'Allen didn't
 Allen aux neg neg₂ see art tall man see the tall man'

- (15b) Allen 'o pi ñeid heg cuuv cioj. 'Allen can't see
Allen aux neg see art tall man the tall man'
(16a) Hega'i 'uuvi 'o pi wud sa'i Becky. 'That woman
that woman aux neg cop ñeg₂ Becky isn't Becky'
b) Hega'i 'uuvi 'o wud pi sa'i Becky.
that woman aux cop neg neg₂ Becky
c) Hega'i 'uuvi 'o pi wud Becky.
that woman aux neg cop Becky

In most negative copular sentences the negative has semantically higher scope than the copula; thus 'Eric is not a Pima' is saying 'It's not the case that Eric is a Pima' rather than 'Eric is a not-Pima'. Therefore I think it makes semantic sense to say that the nominal predicate constituent defined by (i.e., following) wud does not originally have an included pi. This is confirmed by the fact that, although the order ...pi wud... is always acceptable, the order ...wud pi... (acceptable in, for instance, (13a) and (14a)) is not always good:

- (17a) Bi 'o wud sa'i Pima heg Eric. 'Eric is not a Pima'
neg aux cop ñeg₂ Pima art Eric
b) *D-o pi sa'i Pima heg Eric.
cop-aux neg ñeg₂ Pima art Eric
(18) *Hega'i 'uuvi 'o wud pi Becky.¹⁰ 'That woman isn't
that woman aux cop neg Becky Becky'

(Note that the initial form of pi, as shown in (17a), is Bi.)

The second part of the two-part negative is sa'i, a morpheme evidently of indefinite origin which the Saxtons gloss 'a bit' (cf. Pima sa 'a bit'). The inclusion of sa'i along with the negative pi seems parallel to other incorporations of a measure word as the second member of a two-part negative construction (cf., e.g. French pas). Thus, sa'i is semantically a qualifier of the predicate, and the most neutral order of pi, sa'i, and wud must then be pi wud sa'i NEG COP 'a bit'. Further evidence for considering sa'i to be part of the predicate which follows wud rather than part of the preceding negative is provided by the unacceptability of all sentences containing the sequence ...sa'i wud... (e.g. (13-14c)). It seems that it is something about the string sa'i wud itself which is bad, rather than the combination of wud with whatever follows it in these sentences. For instance, (13c), containing sa'i wud N, is no good, even though there are many acceptable negative sentences containing wud N, e.g. (14d), (16c); similarly, (14c), or (19a) below, with the sequence sa'i wud ADJ N, is bad, although there are acceptable negative wud ADJ N sentences, e.g. (19b):

- (19a) *Nixon 'o pi sa'i wud 'ap 'o'otam. 'Nixon is not a
Nixon aux neg neg₂ cop good person good person'
b) Nixon 'o pi wud 'ap 'o'otam.
Nixon aux neg cop good person

- (19c) Nixon 'o pi (ša'i) 'ap wud 'o'otam. 'Nixon is not
 Nixon aux neg neg₂ good cop person a good person'

Sentences like (19c) and (14d0, in which wud occurs just before the final head noun, illustrate the same sort of movement that was postulated to relate the (a) and (b) sentences of (11)-(12). As just noted, however, this movement is blocked if it would result in the unacceptable sequence ...ša'i wud....

If it is agreed that the neutral order of negative and copula is ...pi wud..., we have yet to explain the AUX wud pi order in sentences like (13-14a). This movement, it seems to me, continues a recurrent Uto-Aztec tendency for relational auxiliary-like elements to be attracted into the second-position auxiliary constituent (cf. e.g. Steele 1976). Even in sentences with no auxiliary base comparable to the 'o which has appeared in most of these examples, wud may gravitate to the auxiliary position. For instance, no auxiliary is used in clauses which follow the same-subject conjunction c. In the second clause of (20), wud appears in second position, right after c, preceding the words 'ep 'also' and negative pi:

- (20) Sil-viisa 'o pi sa'i s=i'ovi c wud 'ep pi sa'i
 beer aux neg neg₂ sweet and cop also neg neg₂
 s=toñ vasip. 'Beer is not a sweet hot drink', lit.
 hot drink '...is not sweet and is not a hot drink'¹¹

Similarly, wud may optionally precede the future morpheme o in a sentence like (8) above, or (21):

- (21) Rina 'at wud o s=ap je'e-k. 'Rina's going to be
 Rina aux cop fut good mother-stat a good mother'

I feel justified in assuming that the adverb 'ep and the future marker, like negative pi, are not semantically within the predicate governed by wud.

I have shown that the positioning of wud in its clause follows fairly strict rules, and that there will be, for any one order of the other sentence elements, at most three positions in which wud may appear: post-auxiliary, pre-predicate, and pre-head.¹² In many sentences, of course, there are no more than one or two possible positions for wud, because two or more of the possibilities coincide or because strings containing *...ša'i wud... have been avoided, but (14) shows all three possibilities.

We need more information about the semantic value of Wud Movement, but I think that the intricacies of the two rules under discussion can be elucidated somewhat by a consideration of the origins of the wud construction.

Most Uto-Aztec languages have copular sentences of the form NP NP (BE), with the BE element either always present or showing up only when needed to "carry the tense", e.g.

- (22) ni? sari:ci-ga` 'I am a dog' Southern Paiute (Sapir
I dog-be 1930, p. 132)
- (23a) Maria-p no-kaytu. 'Maria is my enemy' Luiseño
Maria-aux my-enemy
- b) Maria-pil no-kaytu miy-quʃ. 'Maria was my
Maria-aux=past my-enemy be-past=cont enemy'

In fact, Pima/Papago copular sentences--consisting in their most basic form of two NPs, one with predicate status--are actually quite comparable. Most of the present-tense sentences we have looked at are like (23a), but a parallel to (23b) can be found in sentences in which the suffixes -k and -ka-him appear. The -k(a)- morpheme, synchronically a stativity marker, derives from a Proto-Uto-Aztecan verb *ka 'be', a reflex also appears suffixed to the predicate noun in the Southern Paiute sentence (22). Thus we can analyze a sentence like (8) above as exemplifying the general Uto-Aztecan pattern:

- (8) J. P. 'at wud o vakial-k. 'J. P.'s going to be a
J. P. aux cop fut cowboy-stat cowboy'
- NP NP BE

However, what is wud? This Papago/Pima syllable would, by accepted sound correspondences, reflect a proto-syllable *pul. Ronald Langacker led me to the suggestion that this *pul might be another reflex of the *pul morpheme that appears in various words meaning 'one' (e.g. Tarahumara biré, Yaqui wépul (also -pola 'alone), and in compounds with other roots for 'one', as in Luiseño supul--cf. Miller (1967) # 508), and this hypothesis seems to have a good deal of merit. The prototypical predicate nominal is semantically indefinite, and such indefiniteness is often indicated in many languages by an indefinite article. Indefinite articles frequently derive from the number 'one': following the same principle, hema, a form of the current Pima word for 'one', hemako, is often used to indicate the indefiniteness of an object or other verbal dependent, as in

- (24) Sylvia 'at hema bei heg visilo. 'Sylvia got a calf'
Sylvia aux one get art calf

The hypothesized development, then, is shown in (25): from the basic Uto-Aztecan pattern for copular sentences (a), a derived pattern (b) arises for use when the predicate is indefinite (i.e., most of the time). This pattern becomes generalized for all predicates at stage (c), at which point a reinterpretation of wud as a copula is possible, and by the time hema(ko) replaces wud (or its ancestor derived from *pul) as the word for 'one' this process is complete (d).

- (25a) NP NP (BE)
b) NP [ONE NP] (BE) (for indefinites)

(25c)	NP	ONE	NP	(BE)	(general)
		∨			
		COP			
d)	NP	COP	NP	(BE)	(when <u>wud</u> no longer means 'one')

This is a reasonably convincing proposal, I think, but it would be comforting to find some trace of the transitional stages--e.g. a reflex of *pul regularly used with indefinite predicate nominals only, for instance. I believe that the needed proof will be found outside of Papago/Pima, since the use of a reflex of *pul (vurh) for the copula was well-established in Lower Pima, a related language spoken in Sonora, by the mid-eighteenth century, according to the records of contemporary Jesuit missionaries (Anonymous, 1862). If the course of development shown in (25) can be defended, however, this will exemplify a new sort of development of a determiner-like element into a copula, as compared with those documented by Li and Thompson (1976)--all their cases involved the formation of copulas from resumptive subject pronouns, while the case of wud shows a copula which would have originated within the predicate noun phrase.

To close this discussion I will suggest that the origin of wud from a word meaning 'one' may help to explain the mysterious unacceptability of sentences containing the sequence ...sa'i wud It may be simply that there is a semantic anomaly in the combination of these two elements which is apparent (and rejected by the speaker) only when they are immediately juxtaposed in this order. There is, it seems, something of a contradiction between 'a bit' (sa'i) and 'one' (wud): the lack of specificity of a notion like 'a bit' conflicts with the precision of 'one'. I suggested above that pi...sa'i was like French ne...pas; consider the unacceptability of most instances of the string ne...pas un(e) in French for what seems to be a semantic parallel. Even though the meanings of both pas/sa'i and un/wud have been extended, the use of pas and sa'i as imprecise de-emphasizers of the negated predicate does not seem to go well with the literal sense of a following 'one'. In other words, the unacceptability of sa'i wud begins to make more sense if we assume a connection between wud and 'one'; similarly, the unacceptability of sa'i wud offers, then, some further support for the proposed history of wud (25).

FOOTNOTES

1. This paper is for Mrs. Etheleen Rosero of Los Angeles, my Pima teacher, and for my fellow Pima students, Alice Anderton, Denise Bradshaw, Brent de Chene, Monica Devens (who thought copular sentences were dull), Heather Hardy, Ian Maddieson, Marina McIntire, Sylvia Ottemoeller, Rina Shapira, and Eric Zee, all of whom I thank. I would also like to thank Bill Bright (who prevails in his conviction that all two-part negatives are alike!), Ron Langacker, Allen Munro, and Alan Timberlake for their helpful comments on this data, and Ken Hale and Dean and Lucille Saxton for their general encouragement.

The abbreviations I use in the examples are art = article, aux = auxiliary (= clitic, for Luiseño), cont = continuative non-future, cop = copula, fut = future, neg = negative, neg₂ = post-negative, sg = singular, stat = stative, 1 = first person, 2 = second person. Third-person forms are unmarked.

The Luiseño sentences in (24) are from the speech of Mrs. Villiana Hyde of Escondido, whom I can never thank enough.

2. Only in that the "Equational verb stem wud occurs with second noun phrase [relative to the English word order?--i.e., the predicate noun] displacing it from other VERB parts" instead of those parts being directly attached to the stem (p. 119). See the discussion below.

3. There are minor phonological and lexical differences between Papago and Pima, to which I will make no further reference. The major difference in orthography is that I use v for the sound [v], while retaining Hale's w for the sound [w] (i.e., /v/ before u). It would doubtless be more phonemically consistent to write v everywhere; maybe I'll come to that sometime. I have no evidence, incidentally, that the facts I will describe here are not true for Papago as well as for Pima, but the data I cite is Pima, except as noted.

4. Hale (1975) has claimed Papago to be verb-final (SOV); Anderton (1976) has argued that Pima is synchronically SVO.

5. In Pima the "introducer" k which appears in the Papago sentence (1) is not often used in isolated sentences. The citation equivalent of (1) in Pima would be (10) below. (The introducer k, which implies (in my understanding) continuation of a previous discourse, may have the effect of surprising the occurrence of the second-position auxiliary, as in (1).)

6. Definition of "constituent" for Pima awaits formalization, since the facts do not seem to be as clear as for some other Uto-Aztecan languages.

7. Sentences in which wud may show up in final position crucially have a non-third-person auxiliary and some indeterminacy about what the real subject is (e.g., a definite predicate):

(i) 'Iida 'ali 'ap wud. 'This baby [in the picture] is
this baby aux=2=sg cop you'

(ii) 'Aañi 'añ wud. 'That's me'
I/me aux=1=sg cop

(iii) 'Iida 'ap wud. 'This is you'
this aux=2=sg cop

8. As far as we can tell, this initial reduced form of wud in Papago remains the retroflexed d found in the unreduced form. However, our conclusion about Pima is that the Pima initial d here is the unretroflexed simple stop. (I credit--hopefully correctly--to Rina Shapira and Ian Maddieson the theory that there is no initial d in the variety of Pima which we have learned.)

9. Perhaps this is as good a place as any to mention what I think must count as another argument that wud is not a verb and, more significantly, that wud plus the predicâte noun are not analogous to verb plus object in other sentences. All transitive

verbs take prefixes agreeing with their object in person and number (the third-person singular object prefix, as revealed in (5), is zero). However, consider

- (iv) Vakial 'at ha-ñeid heg Monica c heg Denise (veem).
cowboy aux them-saw art Monica and art Denise together
'The cowboy saw Monica and Denise'
- (v) Monica c heg Denise 'o (*ha-) wud vapkial.
Monica and art Denise aux them cop cowboys
'Monica and Denise are cowboys'

I hesitate to mention this fact, since I am convinced that it is a universal truth that predicate nouns are not syntactically objects in any language, but perhaps this counts as an extra piece of evidence. Incidentally, an object-like relationship can be marked on the predicate noun, as in (vi), supporting the claim that it is more verbal than wud:

- (vi) Rina 'at wud o s=ap ha-je'e-k. 'Rina will be a good
Rina aux cop fut good them-mother-stat mother to them'
(The prefix ha- marks possessor as well as object status.)
10. Note however, that it is acceptable to say
- (vii) Brent 'o wud pi heñ-kun. 'Brent is not my husband'
Brent aux cop neg my-husband

where the only difference from a sentence like the unacceptable (10) is that the predicate is not a proper name. Sylvia Ottemoeller has suggested that pi + verb (without sa'i) creates what is almost a lexicalized negative verb, a process which could be less acceptable with unique proper-name predicates.

11. Strangely enough it seems to be almost impossible for two adjectives to precede the predicate noun in its clause.

12. I have had to reject two suggested accounts of Wud Movement which would have had the merit of making it look more like other Uto-Aztecan phenomena. Ron Langacker suggested to me that such variations might be analogous to processes in Luiseño and Tubatulabal which likewise result in different orders for BE and part of a predicate nominal (cf. Langacker n.d., p. 165). However, these processes appear to be extrapositions of part of the predicate noun around an underlyingly sentence-final BE; given the rarity of clause-final wud (cf. fn 7) I wouldn't like to propose that as the underlying order, and anyway wud doesn't seem to mean 'be' (as will be discussed below).

Similarly, Alan Timberlake proposed that the movement of wud into the predicate nominal was a kind of enclisis, that wud gravitated to a position after the first element of the predicate. The possibility of sentences like (14d) and (19c), in which wud occurs deep within the predicate, plus the nonoccurrence of sa'i wud (if sa'i is always the first element of its predicate) seem to argue against this idea, even though cliticization of various sorts is rampant in Uto-Aztecan (cf., again, Steele 1976).

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