Clauses and Other DPs in Omaha-Ponca

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I. Introduction

Under the theory of Functional Heads, which has been widely assumed, at least in certain generative circles, for the last decade, clauses are generally said to be Complementizer Phrases (CP), headed by a Complementizer element, as in tree (1). "Smaller" clauses (the IP in the tree) are headed by some inflectional element. (I represent this inflectional element as "I" for the sake of simplicity, but in fact many analyses involve several layers: Tense Phrase, Aspect Phrase, Agreement Phrase, etc. Topics, subjects, and other VP-external material are located in Specifier positions, which I also ignore.) Nominal phrases are generally headed by a determiner (D), as in tree (2). The complement of D is shown in this tree as a Noun Phrase, headed by N; but again, more layers of structure could be involved; for instance, a Quantifier Phrase could intervene between DP and NP.

1.   CP
       IP   C
    VP   I

2.   DP
       NP   D
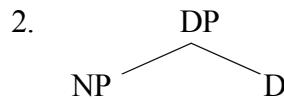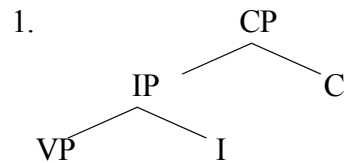
(Note that all phrases in these trees are shown as head final, appropriate for Siouan; to get Indo-European-type structures, linear order would be reversed.)

In this paper I suggest that clauses in Omaha-Ponca may be best treated as Determiner Phrases, that is, they may have the structure in (3) instead of (1):

3.   DP
       IP   D
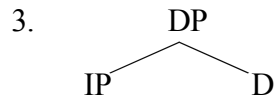
Clauses and nouns behave alike in several ways in Omaha-Ponca, including taking articles in some circumstances. Certain clauses -- relative clauses and nominalizations -- clearly take a determiner. Other types of clauses have not traditionally been said to contain a determiner; however, the set of clause-final complementizer and auxiliary-like particles overlaps with the articles to a large enough extent to make pure coincidence unlikely. An analysis of clauses containing such particles as DP would account for these facts in a theoretically interesting way, though unsolved problems do remain, both with the data and the theory.

Though I won't have time to go into any crosslinguistic (extra-Siouan) comparisons, it is worth briefly noting that relevant work has been done: Siloni suggest certain clauses are DP in Hebrew and French; Lefebvre and Muysken discuss the mixed characteristics of Quechua nominalizations,

suggesting they may be [+N,+V]; Jelinek & Demers treat Salish noun phrases as clausal; various work on underspecification of categories may be relevant too. I hope to take a broader range of languages into account in future work.

II. Nouns and Clauses

The idea that Omaha-Ponca clauses could be DPs arises from the fact that clauses and nouns are found in at least some of the same contexts and structures in this language. As usual, the basic insight is due to John Koontz. He points out (1984:164) that the "core" element of a nominal phrase can be either a noun or a clause (or, irrelevantly for our purposes, a pronoun or zero).

For example, nouns and clauses can both function as (bare) subject or object phrases (as in (4)), can be followed by a quantifier or other modifier (as in (5)) or by an article (as in (6)). Nouns and clauses are bracketed in all these examples and labelled "N" and "S" respectively.[1]

4.a. [$_N$ Tanúka] wi'í^n
         meat   I-brought-it-for-you
      'I brought you meat.'   (5.OB.4)

  b. [$_S$ Wito^{n}be]   ko^{n}btha
         I-see-you   I-want-it
      'I want to see you'

5.a. [$_N$ Nikash^{n}iga]   no^{n}ba
         person   two
      'two people'

  b. [$_S$ Shinuda zhi^{n}ga]   dúba
         dog   is-small   some
      'some puppies'   (16.17)

6.a. [$_N$ Itigo^n]   thi^{n}k^{h}é
         his-grandpa   the
       'his grandpa'   (5.OB.1)

  b. [$_S$ Wa'ú   do^{n}be]   thi^{n}k^{h}é
         woman   he-saw-her   the
      'the one who saw the woman' (1.10)

Certain clauses are followed by the same set of articles as nouns are. The relative clause in (6b) is one example; a few more are given in (7), with the articles in boldface.

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[1] Numbers following the examples are location on my field tapes.

7.a. [[Shinuda noⁿbá uxpáwathe] ak^{h}á]   cf. shinuda ak^{h}á
       dog   two   I-lose-them the   'the dog'
      'the two dogs which I lost' (6.11)

  b. She k^{h}e [[John Turner athiⁿ]   k^{h}e]   cf. nisúde k^{h}e
      that the   he-has-it the   'the flute'
      'that one, the one John Turner had' (6.GD.19)

  c. [[Moⁿkhoⁿ   that^{h}é]   ama]   cf. nú ama
       medicine   they-eat-it the   'the men'
      'those who eat peyote' (16.9)

  d. [[Awák^{h}eta bthé] t^{h}e] thiⁿgé   cf. hú t^{h}e
       where   I-go   the   is-lacking   'the voice
      'There's nowhere for me to go.' (16.19)

  e. [[Noⁿzhiⁿ=ta] k^{h}e] ebthégoⁿ
       it-rains=fut the? I-think
      'I think it's going to rain.' (6.14)

The relative clauses in (a) through (d) are clearly DPs. Nominalized clauses like (e) are somewhat less obvious, but still fairly clearly DP. But what about other clauses? Could it be that ALL Omaha-Ponca clauses, both main and subordinate, including those not traditionally considered "nominalized", are DPs? This suggestion is a much less standardly accepted idea than the cases considered up to now, but it is not implausible. In fact, it receives considerable support from the morphology of the language.

III. Articles and Clause-particles

In particular, the set of articles overlaps with the set of clause-final complementizer- and auxiliary-like particles to a degree that seems unlikely to represent accidental homonymy.

The Omaha-Ponca definite articles are given in (8), with their semantic specifications according to Koontz 1984.[2] The right-hand column shows which articles correspond to clausal particles: "C" indicates that the form in that row also occurs as a clause-final complementizer, and "A" marks forms which also occur as auxiliary elements. Even taking the questionable cases into account, it is clear that most if not all of the articles do occur in some clause-marking function in addition to their

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[2]These semantic characterizations, based on usage in the Dorsey texts, do not always hold in my data, but often do; the exceptions may represent language change in the past century, or simply speech errors or my own mishearing. There is considerable controversy over the precise nature of the articles in Omaha-Ponca and other Dhegiha languages; *work by Eschenberg, Quintero, etc.*

noun phrase-marking one.

8. Articles (following Koontz; p. 144)   Also functions as:

k^{h}e	[-animate, horizontal]	C?	A?
t^{h}e	[-animate, vertical]	C	A?
tho^n	[-animate, round]		A?
ge	[-animate, scattered]		A?
thi^n	[+animate, -agent, moving]		A
t^{h}o^n	[+animate, -agent, standing]		A
thi^{n}k^{h}é	[+animate, -agent, sitting]		A
ma	[+animate, -agent, plural]		A?
ak^{h}á	[+animate, +agent, -plural, -motion]		A
amá	[+animate, +agent, +plural or +motion]	C	A

      C = also clause-final particle (complementizer)
      A = also auxiliary element

Let us look first at those forms marked with a C. These are forms which appear as what Koontz (1984) calls "sentence terminators", a set of particles generally marking mood: declarative, imperative, interrogative, emphatic, exclamatory, evidential, and quotative. His list of "sentence terminators" (p. 49) includes *amá* 'quotative' and *t^{h}e* 'evidential'; I think *k^{h}e* belongs on the list too, perhaps as another evidential particle.

9.   amá   quote
       t^{h}e   evidential (personally experienced past?)
       k^{h}e   perhaps also evidential?

Quotative *amá* is very frequent and always clause-final; one example is given in (10).

10. Áthigiho^n thi^{n}k^{h}é shti é wáthade=bi=**ama**
     bearers the too ref he-chose-them=prox-quote
     'He chose his own pallbearers, they say.'   (5.FD.4)

Evidential *t^{h}e* likewise is very common; one example is given in (11).

11. Wa'ú ak^{h}á e=tá=t^{h}o^n=i=**t^{h}e**
     woman the ref=at=from=prox=evid
     'The woman is from over there.'   (13.SR.8)

Its meaning is said to be "personally experienced past", but in fact it's often NOT used in telling about one's own life and IS used in other contexts; in (11), for instance, the speaker has not personally been in Hawaii to see the woman growing up there and has only the woman's husband's word for it. The meaning seems more emphatic or confirmative than personally experienced, to me.

Whatever the case may be, however, the same seems to hold for k^he as a clause particle as well. Though much less common, k^he shows up sporadically in my texts in the same types of contexts as 'evidential' t^he -- sometimes in the exact same context, as in the two sentences in (12), which immediately follow each other in a narrative and are clearly meant as stylistic repetition. One further example of this use of k^he is (13)

12. a. Égithe ti   wi^n ahí=**t^{h}e**
         finally house one   they-arrived=evid
         'Then they came to a house.'

   b. Ti   wi^n ahí=**k^{h}e**   égithe
       house one   they-arrived=evid finally
       'They came to a house, then.'   (6.GD.2)

13. I^{n}dádi   ak^{h}á ukízhi   éta wa'ú=i=**k^{h}e**
    my-father the   his-sister his woman=prox=evid
    'She was a woman, my father's sister.' (3.BW.1)

Now let us look at the longer list of articles which also appear as auxiliary-like elements. These fall into several classes: what Koontz calls "EXIST" markers (*akhá* and *amá*); conjugated articles or person-marked auxiliaries (*thi^{n}k^{h}é, thi^n, t^{h}o^n*, and perhaps the other nonagentive or nonanimate article forms); the subset of these which are derived from positional verbs; and a couple of modal-formative elements (*t^{h}e* and *k^{h}e*).

14.   ak^{h}á   exist; also 3sg aux
        amá   exist; also 3pl aux
        thi^{n}k^{h}é   person-marked article: progressive aux
        thi^n person-marked article: ? aux
        t^{h}o^n person-marked article: ? aux
                            all nonagentive or nonanimate articles may be person-marked?
                            some articles derived from positional verbs (stand, sit, etc.)
        t^{h}e   modal-formative element
        k^{h}e   modal-formative element

The "EXIST" markers *ak^{h}á* and *amá* are said by Koontz to combine with an NP to form an S (which can then have various other elements added to form an S'). I haven't found any clear examples of this type in my data, but there are sentences like those in (16), which look like existence markers to me.

15.   S → NP EXIST   (Koontz, p. 222)

16.a. Égithe ído^{n}ba di xti sho^{n}ge wi^n no^{n}zhi^n **ak^{h}á**.
       finally center in very horse   one   it-stands exist
       'There was a horse standing right in the center.' (5.OB.2)

b. Wáxe   amá   i^{n}dáde   é   wak^{h}á   **amá**.
   white   the   what   ref   they-call-it?   exist
   '(I don't know) what white people call it.'

The 'progressive' auxiliary (Koontz, 108) *thi^{n}k^{h}é* occurs most often after the future *-ta-*. It apparently had the forms in the first column of (17) in Dorsey's texts (according, as usual, to John Koontz (151)). In my data some of the forms seem to have changed (the 1990 column), but they are still used regularly. The gloss at right is Dorsey's.

17. person-marked article forms (adapted from Koontz)

	thi^{n}k^{h}é		thi^n	t^{h}o^n	
	1890	1990			
1s	mi^{n}k^{h}é	mi^{n}k^{h}é	(?)		'I the'
2s	[sh]ni^{n}k^{h}é	ni^{n}k^{h}é	thathi^n		'you s. the'
3s	thi^{n}k^{h}é	ak^{h}á/thi^{n}k^{h}é	thi^n	t^{h}o^n	's/he/it the'
1p	o^{n}k^{h}á	t^{h}e	o^{n}gathi^n	o^{n}gat^{h}o^n	'we the'
2p	[sh]no^{n}k^{h}á	?	(thathi^n ?)		'you p. the'
3p	tho^{n}k^{h}á	amá/ak^{h}á	thi^n	t^{h}o^n	'they the'

I have not recognized examples of conjugated *thi^n* and *t^{h}o^n* (the third and fourth columns above) in my data, but this does not mean that they do not exist in the modern language. Koontz suggest that "the animate nonagentive and the inanimate articles may all be conjugated as active verbs when the referent of the governed NP is not a third person"; that is, all of the articles except *ak^{h}a* and *ama* apparently "MAY" be conjugated. He seems to have actual evidence only for the three, though.

A partial paradigm is given in (18) for the *thi^{n}k^{h}é* auxiliary with the verb 'go'. (Somehow I have never elicited a 2pl form of *thi^{n}k^{h}é*). I find it interesting that the innovated forms in the 1990 paradigm all correspond to articles: *ak^{h}á*, *t^{h}e*, and *amá*; and furthermore *ak^{h}a* and *ama* match the corresponding articles in plurality.

18. bthé=ta=**mi^{n}k^{h}e** /   né=ta=**ni^{n}k^{h}e** /   thé=ta=**ak^{h}a** /   o^{n}gáthe=ta=i=**t^{h}e** /   thé=ta=**ama**
    I-go=fut=1aux   you-go=fut=2aux   s/he goes=fut=aux   we-go=fut=pl=aux   they-go=fut=p.aux
    'I/you/s/he/we/they will go' (5.FD.1)

In this connection it is worth noting that the person-marked articles are historically related to positional verbs (stand, lie, sit, and so on). Bob Rankin (Quapaw) notes that "the same set of positional particles that occur as classificatory definite articles [...] also functions post-verbally as markers of continuative aspect" (24) in all of the Dhegiha languages. (He considers these aspect markers to be "neo-auxiliaries" (25) derived from definite articles, which themselves originated as positional verbs (see also Rankin 1977 and Koontz 1984 p. 242)) This ongoing interchange among articles and auxiliary elements suggests to me that the articles and auxiliaries may never have been entirely distinct categories; i.e. that they have both been D all along.

Finally we come to the modal-formative elements; I will not have much to say about these, but simply note that many of the modals listed in John Koontz's work (p. 69) seem to be compounds with t^he as one element; one uses k^he. The modals include *te* 'future/irrealis' (which we've seen in the examples in (18)) and various combinations of *te+t^he te+k^he t^he+go^n,* etc.; see the list in (19).

19. tei^n**k^{h}e**   'future (1st person)'
    tei^n**t^{h}e** / ei^n**t^{h}e** / tatei^n**t^{h}e** 'possibility'
    et^h**e** / et^h**ego^n** / **t^{h}ego^n** 'inclination'   (Koontz, p. 69)

To summarize so far: We have seen that there is considerable overlap between articles and various clause particles.

This overlap is not restricted to Omaha-Ponca or Dhegiha, but appears to be a wider Siouan phenomenon. Graczyk (1997) shows that the Crow determiners -m, -dak, -sh, and -t are also used as adverbial "subordinators" with meanings like 'while' or 'if', and several of them turn up as "complementizers" and/or "sentence-final evidentials" as well. (I have not looked in detail at adverbials in Omaha-Ponca, but it might be worth doing so: t^ho^n is sometimes translated as 'from', while t^he and k^he show up in various combinations like t^hedi 'when', very similar to what happens with the modals in (19).)

It is well known that nominalization of clauses is widespread in other Siouan languages too; see for example Rood and Taylor on Lakhota clauses.

Perhaps it's my Jakobsonian upbringing as a Slavist, but I find it suspicious when the same form turns up in two potentially related meanings or uses; especially when a whole series of forms is involved it seems better to treat each form as a single lexical item with multiple uses. In this case this means saying a whole series of forms can be used both as Noun Phrase boundary elements (i.e. articles) and as Clause boundary elements (i.e. complementizers or auxiliaries).

IV. A DP Analysis

I propose analysing both articles and clause-final particles as D (Determiner). This D can take either a clausal or a nominal complement. Clauses and noun phrases in Omaha-Ponca both share the structure [[XP] D] where XP = IP or NP; see the trees (2) and (3). This blurring of the structural distinctions between clauses and NPs accords well with fundamental aspects of Omaha-Ponca grammar, since many types of nominals, including internally-headed relative clauses, nominalized clauses, and deverbal nouns, are identical in form to simple verbal clauses.

In fact, there's a great deal of fluidity between the classes of nouns and verbs (which are of course the core element of clauses; a clause in Omaha-Ponca often consists just of a verb with its various prefixes and suffixes). Many nouns "are simply verbs used nominally", to quote John Koontz again (137): an example is *ti*, which is basically a verb 'dwell' but is most commonly used as a noun 'house'.

20.   ti   'dwell'(V)/'house'(N)

　　　Ti   áta   bthe
　　　house   at   I-am
　　　'I'm in the house'

Similarly, nouns can be used in what look like verbal contexts. The noun *nikashi^{n}ga*, for instance, can be negated; see example (21).

21. nikashi^{n}ga 'person'(N)/'be a person'(V)

　　　nikashi^{n}ga ázhi
　　　person   neg
　　　'enemy; (one who is) not a person'   (Koontz, 54)

We have already seen other examples of verbal morphology attached to a basic non-verb: (11) and (13) are two.

The general slipperiness of categories in Omaha-Ponca leads to a lot of uncertainty in labelling data, at least for me. I have spent a lot of energy inconclusively worrying about sentences like (22a) (or for that matter (7e)), wondering whether to call *t^{h}e* an article or an evidential complementizer. In (22a) the clause *awák^{h}eta wathít^{h}o^n=i* is clearly the object of the main clause verb (or at least coreferential with it, if we take the notion of pronominal arguments seriously) and so in some sense is acting as a nominal. But I'd have no doubts about labelling the identical ending of an identical main clause "evidential". Is the subordinate clause in (22a) nominalized, evidential, or perhaps ambiguous between the two interpretations? Calling *t^{h}e* "D" removes the problem, or at least puts it off a step: now instead of worrying about whether *t^{h}e* is determiner or complementizer in a given situation, we can worry instead about whether the preceding constituent is NP or IP (nominal or clausal/verbal).

Another common puzzle is represented by (22b), with a deverbal noun. *Wat'éxe amá* is translated as a noun phrase and I'd tend to label *ama* here an article; however, it also turns up with clausal morphology like the future *=ta=,* and here I'd tend to label *ama* as "aux". The DP analysis allows us to treat *amá* as the same D element in both cases, with an NP or IP complement.

22(a) Awák^{h}eta   wathít^{h}o^n=i=**t^{h}e**   agísitha=m-azhi
　　　　where   they-work=prox=D I-remember-it=1s=neg
　　　　'I don't remember where they work.'   (7.15)
　　　　"D" = 'the'("nominalized") or 'evidential'("non-nominalized")??

　　(b) wat'éxe **ama**   /   Wat'éxe=ta=**ama**
　　　　　funeral   D   funeral=fut=D   (5.FD.1-2)
　　　　　'the funeral'   'There's going to be a funeral'

V. Remaining problems

The DP analysis is appealing as a way to make sense of the shifting category membership of a whole class of syntactic-boundary morphemes in Omaha-Ponca and unify the constructions in which they appear. Several problems need to be addressed before such an analysis can be formalized, however. I'm obviously not going to address them today; I'll just list a few.

1. Why is the overlap not complete? (And just how close is it?)

What I mean here is: A few of the articles, particularly t^he and *ama*, are used freely and frequently as both complementizers and auxiliaries, but many of the articles have no complementizer function and marginal if any auxiliary function. To some extent the gaps in the chart may be due to incomplete and imperfectly analyzed data, but it is still a worry.
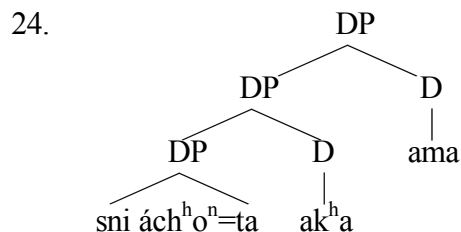
2. Semantics

If the homophonous articles and complementizer/auxiliaries are actually single lexical items, as the DP hypothesis claims, their meanings should be at least related. But it's not at all clear for instance what *amá* 'quote' has to do with *amá* 'anim. pl. def.' It makes some sense for t^he, which is the article most often used for abstract nouns, to be the general evidential complementizer. The auxiliary uses of some of the articles are pretty clearly related to their positional and plurality features, but not their agentivity features.

3. Nested DPs??

The question here is: what is the structure of clauses with both an auxiliary element and a complementizer, or with several auxiliary elements? One example is shown in (23), which has *ta+aux+comp*. Under the DP hypothesis, these would have to involve layers of DP, as in (24) -- not necessarily a problem, but a bit odd looking.

23. sni   ách^{h}o^n=ta=ak^{h}a=ama
    be-cold   very=fut=3aux=quote
    'It's going to be very cold, they say'   (16.7)

24.
```
                        DP
                  ┌──────┴────┐
                 DP            D
              ┌───┴───┐        │
             DP       D       ama
           ┌──┴──┐    │
    sni ách^ho^n=ta  ak^ha
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(The flip side of this is NOT a problem: Many clauses (in fact MOST in some narratives)[3] do not have any final particle. These presumably are just S (IP or whatever), not DP -- just like a "bare" NP.)

4. Directionality: Instead of "clause = DP", should the statement of identity be "DP = clause"? It seems clear that clauses and nominal phrases in Omaha-Ponca are the same category, or at least can be complements of the same class of heads. But perhaps those heads are C or I, not D. Perhaps nominal phrases with an article are CP or IP, not DP. Or perhaps the article/aux/complentizer particles are underspecified functional heads, which take some of their features from their complements (as has been suggested in work by Jane Grimshaw -- where?) For now, I assume the DP analysis, but a CP/IP or underspecified analysis would preserve most of the features and advantages of this one.

Given all these questions, my conclusions are necessarily tentative. But assuming the problems can be dealt with, an analysis of both noun phrases and clauses as DP would account for the data in a theoretically satisfying way: in addition to unifying apparently disparate lexical items and constructions, to the extent that it works, the DP analysis provides support for the cross-linguistic analysis of noun phrases as DP, and indirectly supports the general concept of functional heads.

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[3]One example is BW's life story.