

Noun Collocations in Nootka*

John Stonham
University of Hong Kong

1 Introduction

There are a number of situations in language where nouns can appear adjacent to each other. Nouns may be compounded, placed in apposition, occur as bare arguments adjacent to each other, etc. The aim of this paper is to examine this situation in Nootka, a language with little morphological case-marking on nouns and a relatively free word order for arguments of the verb.

Nootka, a Wakashan language spoken on the West Coast of Vancouver Island, is a morphologically complex language, which makes use of both polysynthesis and incorporation to a high degree. Traditionally, Nootka has been described as a language which has one root per word, combining with any number of suffixes and possibly containing one or more reduplicative prefixes but never a second root. Thus, regular compounding has been ruled out as a process in the language.

For the most part, this is an accurate depiction of the facts. We never encounter more than a single root within a word.¹ However, there are situations where two nouns are brought together in a relationship that is highly suggestive of compounding in other languages, such as:

- 1) [?iih?ii [yačmuut λaqm̩s]_N]_{NP} 'the large oil-bladder.'
the big bladder oil

* Thanks to Nik Gisborne and Steve Matthews for discussion of various drafts of this paper.

¹ For further discussion of the nature of the word in Nootka, see Stonham (1999). The morphological breakdown of words will not be indicated in this paper except where it is directly relevant to the discussion. Data for this paper are drawn from the published and unpublished work of Edward Sapir and Morris Swadesh on Tsishath Nootka.

- 2) [[muunaa h̩nq̩h̩nq̩y̩ak]_{NP}]_{NP} 'sewing-machine'
machine sewing tool

Examples such as these, and other patterns with which they may be confounded, will be the major focus of this paper.

2 Preliminaries

Before moving on to the central issues it will be useful to take a very brief look at those aspects of the syntax which may bear directly on the issues to be discussed herein.

Within the sentence, the most obvious factor is the head-initial nature of the language. Verbs occur at the beginning of the sentence, head nouns precede their relative clause modifiers and other complements. This is not to say that nothing may ever precede the verb in the sentence, but those things that do are typically of either a restricted class of function words or are in a special position, i.e. of focus:

- 3) [nuuth̩m̩staqm̩t̩]_{NP} [?uk̩taani]_V [e]_{NP}
Nuuthlim band we are named

'We were called the Nuuthlim Band.'

- 4) [Yaanus̩h̩t̩]_{NP} [?aak̩uu?atwe?̩n̩]_V [e]_{NP}
Crane they borrow from

'It was Crane they borrowed it from'

- 5) [λaqm̩s]_{NP} [hiš̩n̩kaλ]_V [λaas̩map̩ʔ̩i]_{NP} [e]_{NP}
oil along with the sapling

'There was oil along with the sapling.'

Since the treatment of focus is not directly germane to the issues here, we will not explore it any further, simply assuming that this is a possible outcome in the syntax under the appropriate conditions, to be dealt with by some sort of fronting rule.

As for the location of the subject and object noun phrases, there is considerable fluctuation in their ordering with respect to each other, so much so that it is difficult to state which is the basic order, VSO or VOS. In fact, either order is commonly found to occur, and this often poses problems for the analysis of the sentence.

- 6) λ unaakweʔin | nisʰa]_{NP} | haʷituk qʰayačiik]_{NP}
 he had land chief of wolves
 V O S

'The chief of the Wolves owned land.'

- 7) λ yuuʔatweʔin kʰatyaat | ʔala haathaakʰal]_{NP}
 catch sight of Kwatyat two young women
 V S O

'Kwatyat caught sight of two young women.'

Notice that the two sentences (6) and (7) provide evidence of the two competing orders for arguments, VOS in (6) and VSO in (7). Obviously this issue will be important to an overall understanding of Nootka grammar, but the focus here will be on the bare noun phrase, in whatever position it occurs, and its various collocations. The issue of argument ordering, while an important and fascinating aspect of Nootka syntax, will necessarily be given little further investigation in this paper other than where it is directly relevant to noun-noun collocations.

The internal structure of the phrase is somewhat more rigid than that of the arguments of the verb within the sentence. Within the NP, the noun has a more or less central position, being followed by relative clauses and other sentential complements and preceded by adjectives, which may, in turn, be preceded by various quantifiers, including numerals. Adverbs modifying adjectives precede them and the layout of the entire NP is as follows:

- 8) | { QUANT }
 | { NUM } | [[ADV] [ADJ]]_{ADJP} N | [RELATIVE CLAUSE]]_{NP}

The head is the only obligatory element of the NP and many noun phrases consist of only the bare head noun, an important property in what will follow. Note that the position of the head places it away from the edges of the phrase when any of the other elements are present.

One other issue of a syntactic nature which will be important because of its bearing on the boundaries of noun phrases will be the status of the definite article or specifier, /-ʔi/. The definite article in Nootka is a clitic which moves in the syntax, attaching to the *end* of the first member of the noun phrase, irrespective of its syntactic category. The proof of the clitic status of these elements rests with the standard tests for clitic-hood as described in the literature (e.g. Nevis 1998). The following examples demonstrate the most common property of clitics, i.e., their mobility. This may be utilised as one clear indicator of the left boundary of the noun phrase within which the clitic moves.

- 9) Si:hšil | naʔaqakʔi]_{NP}
 cry the baby

'the baby cried'

- 10) λ yuuʔatʔal | tu:csmeʔi]_{NP} | la:hmatʔi naʔaqak]_{NP}
 saw the woman the newborn baby

'The woman saw the newborn baby.'

- 11) ʔahʔaaʔalweʔin haʔiisʔiʔal | muuʔii quuʔas]_{NP}
 then bathed the four person(s)

'Then *the* four people started to bathe.'

- 12) λ wiicʔiʔal ʔahʔaa sukʰil | ʔiihʔii kʰatiyik rhuksyi]_{NP}
 he approached then take the big heavy stone

'He went up, took *the* big heavy stone.'

- 13) ʔuuwiičit wiina [ʔalɛʔi pišaq maatmaas]_{NP} fuKʷaaʔatɬ
 do at first attack the two bad tribes Toquaht-tribe

‘The two bad tribes first made war against the Toquaht.’

Note the examples of the attachment of the clitic to noun phrases above. In the first case, the definite article appears on the noun which is the only member of the noun phrase subject of the sentence (9). However, in the second sentence it does not appear on the noun with which it is associated, but moves to the first member of the noun phrase, attaching to the initial adjective (10). Subsequent examples demonstrate the mobility of the clitic with respect to numerals (11), multiple adjectives (12) and numeral/adjective combinations (13).

Thus, it is clear that there are strict conditions upon the placement of the various elements of the noun phrase, including the site of cliticization.

One final point to be made concerns the status of third person- and number-marking. In Nootka, there is no third person pronoun, neither is there inflectional marking for third person in many paradigms. In addition, number marking is optional, and infrequent. Thus, it is possible to have sentences without any overt arguments or clear indication of the number of participants, as in the following:

- 14) qahsaapaʔ ‘They killed them.’
 kill now

In this particular context, the sentence is glossed as ‘they killed them’, but it could just as easily mean: ‘he killed them’, ‘they killed her’, etc. This highlights the potential difficulties that may occur in determining the syntactic arguments in a sentence, particularly in the case of third person participants.

In the following sections we will examine each of the possible situations where nouns may be adjacent to each other and attempt to provide heuristics for determining in which of the particular relationships the nouns are in any given context.

3 Types of Noun-noun Collocations

In the following sections we will examine the various conditions under which two nouns (possibly more in some cases) may occur adjacent to each other. In many cases this will in fact be across some kind of major syntactic boundary, but nevertheless the positing of the syntactic boundaries actually presupposes the ability to distinguish these collocations and therefore there is a danger of circularity in any attempt to use this as the sole criterion for distinguishing such cases.

Keenan & Comrie (1977:63) state with reference to their study of relative clauses that

We are attempting to determine the universal properties of relative clauses by comparing their syntactic form in a large number of languages. To do this it is necessary to have a largely syntax-free way of identifying RC’s in an arbitrary language. Our solution to this problem is to use an essentially semantically-based definition of RC.

In order to avoid circularity in the isolating of syntactic arguments we will resort to a similar strategy in attempting to provide tests for the determination of the status of noun-noun collocations in Nootka. These will include arguments from both semantics and, where appropriate, morphology and syntax. The reader is urged to bear this in mind as we proceed.

3.1 Adjacent Arguments of the Verb

One possible collocation of two nouns is the situation whereby two arguments of the verb appear as bare nouns one following the other, e.g., [V [N]_{NP} [N]_{NP}]_S. In the following examples one can see the flexibility of word order inherent in the arguments of the verb as well as the relatively common occurrence of bare nouns in such positions

- 15) suuweeʔin [hupinwašukʔi]_{NP} [ʔaatušhit]_{NP}
 hold his small canoe Deer
 V O S

‘Deer kept his little canoe.’

- 16) suk^oiʔaλ | ʔaatuʔiʔit]_{NP} | ʔiimaakʔi]_{NP}
 hold Deer his mussel shell knife
 V S O

'Deer took his knife.'

Notice that in the first case (15), the subject follows the object, whereas in the second case (16), it precedes. This is another example of the relatively free word order described previously.

Determining the syntactic status of the nouns in such cases may be quite challenging, and often depends on context and semantics for deciding subject- or object-hood. Simply put, in a sentence with two bare nouns adjacent to each other, if the verb is transitive, each noun may serve as one argument, but which is which will often depend on factors other than syntactic ones.

However, in most cases, it is clear from the context and the thematic roles of the noun constituents which one serves as subject and which as object. In fact, things may not always be so simple, but for the purposes of this paper, we will rely on these diagnostics.

3.2 Head-Possessor

Nootka is a head-marking language, in which the head in a head-possessor relationship occurs before the possessor. It is frequently the case that the noun phrase consists of nothing more than two nouns in collocation, one acting as the head and the other as its possessor. Take the following examples:

- 17) ʔiikaaʔaʔhək | supicmisuk ʔhaʔaquuʔa]_{NP}
 you look like sand POSS Maakoa

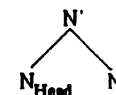
'You look like the sand of Maakoa!'

- 18) ʔuuʔiihʔiʔiʔaλ | qasiiʔat ʔiniʔi]_{NP}
 they took out eye -INAL the dog

'They took out the eyes of *the* dog.'

Notice here that in (17) the head noun has a rather loose relationship to the possessor and is consequently marked by the *alienable possessive* suffix /-uk/. However, in (18) the relationship is one of part/whole and is thus marked by the *inalienable possessive* suffix /-ʔat/. In either case, the suffix indicating possession serves to indicate the relationship of the two nouns involved. It should be remarked that the pronominal referent in possession is encoded by the addition of inflectional marking after the possessive suffix, which in the case of the 3rd person is Ø, e.g. ʔakupukqas 'my husband' contains the /-uk/ possessive suffix followed by the 1st person singular subordinating suffix /-qas/. This is one of the few cases where we can see that case-marking exists in the language, making it perhaps the most straightforward of the noun-noun collocations.

19)



One further observation to make about the case in (18) is that the definite article is found to occur on the second member of the noun phrase, a distinctly odd situation. In a normal noun phrase the definite article, modifying the head, would appear on the first element of the noun phrase, as discussed above. This supports the view that in fact this cannot be either a right-headed or a double-headed noun phrase.

Thus, when two nouns are found adjacent to each other, the initial member bearing either of the possessive suffixes, it is the first one that will be the head noun and the second its complement. As a complement, the second noun may or may not be marked as specific, independent of the head.

3.3 Co-ordinate Structures without Conjunctions

Co-ordination in Nootka may occur at various levels of the syntax, and quite commonly within the noun phrase. It is often accompanied by the use of the conjunction /ʔiʔ/ or /ʔuhʔiʔ/ 'and', as demonstrated in the following sentences:

- 20) $\lambda\alpha\eta\alpha\sigma\alpha\varphi\eta$ $\lambda\eta\alpha\sigma$ [$\lambda\alpha\sigma\eta\mu\eta\eta\tau$ $\eta\lambda\varsigma$ $\sigma\eta\sigma\eta\tau\eta\alpha\alpha\kappa\lambda\eta$]_{NP}
 only they reach Hummingbird and Long-Tailed

'Only Hummingbird and Long-tailed nearly caught up with him.'

- 21) $\gamma\alpha\kappa\varsigma\eta\lambda$ [$\kappa^{\circ}\alpha\tau\eta\alpha\tau$ $\eta\upsilon\eta\eta\varsigma$ $\acute{\epsilon}\iota\chi\acute{\epsilon}\gamma\alpha\pi\eta\chi\eta$]_{NP}
 come in view Kwatyat and Tihiyapihin

'Kwatyat and Tihiyapihin came into view (from inside the monster).'

While the use of these conjunctions is quite common, it is also possible to conjoin elements without the use of any overt conjunction, by simply adjoining the two elements in a noun-noun collocation, as below.

- 22) $\eta\upsilon\zeta\eta\upsilon\eta\alpha\lambda\omega\epsilon\eta\eta\eta$ [$\eta\eta\eta\eta\eta\eta$ $\omega\alpha\alpha\eta\eta\eta$]_{NP}
 steam food the snakes the frogs

'The snakes and the frogs began to steam.'

- 23) $\eta\eta\eta\alpha\chi\alpha\lambda$ $\eta\alpha\zeta\alpha\tau\alpha\kappa\alpha\lambda$ $\sigma\upsilon\upsilon$ [$\mu\upsilon\upsilon\sigma\tau\alpha\tau\eta$ $\zeta\eta\eta\alpha\tau\eta$]_{NP}
 ready all hold bow arrow

'All were ready, holding bow and arrow.'

- 24) $\mu\eta\kappa\alpha\alpha\eta\alpha\lambda\upsilon\kappa\upsilon\upsilon\omega\epsilon\eta\eta$ [$\lambda\alpha\eta\mu\eta\varsigma$ $\lambda\alpha\alpha\eta\alpha\alpha\sigma\tau\eta$]_{NP} $\mu\alpha\eta\acute{\epsilon}\eta\eta\alpha\kappa\eta\eta$
 are all around grease dried blubber his house²

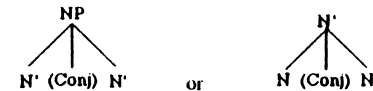
'He would have oil and dried blubber all around his house.'

In such cases one can see that both syntactically and semantically neither element can be seen to act as the head, either one being interchangeable with the other, just as in coordinate structures in other languages. Thus, there must be a difference between a coordinate structure and a head-complement construction. Again, we find that we must resort to semantics to provide the determination of the roles in the sentence. Once the

² Steve Matthews (p.c.) has drawn our attention to the similarities with Hungarian in having the definite article co-occur with the head-marking possessive suffix

determination is made, we can represent such constructions in a standard phrase structure format, allowing for the presence or absence of a conjunction.

25)



Whether this occurs at N' or at N level is open to further debate, but does not directly bear on the situation with regard to bare nouns, where it is indeterminate.

3.4 Apposition

Apposition involves the non-restrictive modification of one noun by the addition of another one, providing further, if somewhat unnecessary, information. Cases in English may involve constructions such as 'my best friend, John' or 'the winners of the Stanley Cup, the Dallas Stars'. They act as non-restrictive modifiers of the head noun and, as such, are less intimately connected with the head than its restrictive modifiers, including pre-head modifiers such as adjectives and post-head modifiers, such as restrictive relative clauses.

This formation is also found in Nootka, and provides a further class of cases involving noun-noun collocations, such as the following examples:

- 26) $\gamma\alpha\alpha\sigma\alpha\alpha\pi\alpha\tau$ [[$\kappa^{\circ}\alpha\sigma\alpha\lambda\alpha\sigma$]_{NN} [$\lambda\alpha\gamma\alpha\chi\eta$]_{NP}]_{NP}
 send Sound-of-a-stick-breaking-on-the-ground the swift one

'They sent out Sound-of-a-stick-breaking-on-the-ground, the fast runner.'

- 27) $\sigma\upsilon\kappa^{\circ}\eta\lambda$ [[$\eta\upsilon\upsilon\tau\upsilon\kappa\eta$]_{NN} [$\kappa^{\circ}\alpha\tau\eta\alpha\tau$]_{NP}]_{NP}
 he, took his, slave Kwatyat

'He took his slave, Kwatyat.'

- 28) ʔahʔaaʔaλweʔin haʔiisʔiʔaλ [[muuʔii quuʔas]_{N'} [kʰiisahiminhʔi]_{NP}]_{NP}
 then start to bathe the four person the hunters

'Then the four people, the hunters, started to bathe.'

Sentence (26) for instance, provides the further information about Sound-of-a-stick-breaking-on-the-ground, that he is a fast runner. It further qualifies the noun phrase consisting of his name by providing this additional information. Sentence (27) does much the same thing, except in this instance the further information is the actual name of the slave, 'Kwatyat'. Note that sentence (28) cannot mean either that 'the hunters bathed the four people' nor that 'the four people bathed the hunters', since these two possibilities would both require transitivity markers on the verb 'bathe', since in its current form it acts as an intransitive, monadic verb. In order for it to act as a dyadic verb, the causative suffix /-ʔap/ would be added to the verb, allowing for this transitive reading, as illustrated in the examples in (29) and (30).

- 29) haʔiisʔaʔaλquuweʔin haakʰaaλʔi ʔaathʔisukʔi
 make bathe the young woman her little children

'The young woman had her children bathe.'

- 30) haahuupʔiʔaλ haʔiisʔaʔiʔim waaʔaλ.
 advising you bathe him say

'He advised him saying 'you will bathe him'.'

Thus, in cases such as those in (26-28) we must regard the relationship between the two nouns as one of apposition, the first acting as the head noun of the noun phrase and the second serving as a non-restrictive modifier of the head.

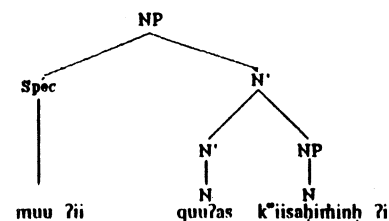
Notice that one clear indicator of this is the ability of the appositive to bear the definite article clitic, /-ʔiʔ/, as demonstrated in (26) and (28) above, which should not be possible if

the modifier were directly adjacent to the head, within the N', since the clitic will always appear on the first element of the NP, as discussed above.³

As regards the head and its arguments, note that in (26) it is impossible to decide the level at which the appositive attaches, since we are dealing with a personal name; (27) provides more indication that the constituent is N', but only if we assume that there is a \emptyset 3rd person pronominal element following the word for 'slave'; this would make this a possessive structure, analogous to those discussed in section 3.2 above. The final example, (28), provides the clearest evidence that this *must* be at least N', since it contains a numeral in addition to the head noun and appositive.

One further interesting point about (27) and (28) is that in both cases there is a definite article on the leftmost member of the noun phrase, suggesting that this is in fact a full noun phrase. Thus, syntactically, the structure of (28) would be better described as in (31) below:

(31)



Huddleston (1984:266) states that: "Non-restrictive dependents are peripheral in that they can be omitted with relatively little loss — never loss of grammaticality, and loss only of supplementary information as opposed to information integral to the main message." Thus the assignment of appositives, by definition always non-restrictive, in Nootka to the N' level sister to N' seems appropriate in this case, differentiating it from a

³ It appears to be possible to have double-marking within the NP but never possible to have a later element marked without marking the leftmost member as well.

restrictive relative clause, and also helps to explain the position of the clitic definite article, which appears on the first, or only element within its domain, i.e. the NP.

3.5 Headless Relative Clauses

A further possibility in Nootka is that of the collocation of a headless relative clause co-occurring with its object, as in 'the one fishing for halibut' or 'the one killing people', which may be realised in Nootka as a collocation of a relativized verbal element, treated as a nominal followed by its object.

Relative clauses in Nootka are typically headed by a relative pronoun /yaqʷ/ and furthermore often contain inflectional suffixation indicating the relational nature of the phrase, especially the inflectional marker /-ʔiʔq/, as illustrated below.

- 32) qahʂiʔ ʔuusaahʂaʔ [ʔaʔaqstim [yaʂiisʔiʔʔiq haʔukʂiʔ]_{RC}]_{NP}
die because of fat at abdomen which had eaten eat

'He died because of the abdominal fat which he had eaten.'

- 33) ʔahʔaaʔaʔ [ʔuucsmʔiʔ [yaqʷaʔʔiq ʔaʂa]_{RC}]_{NP} wiʂaaqstuʔaʔ huptimʔakquu
then the woman whose it was child unable to hide the truth

'And then the woman whose child he was could no longer hide the truth.'

- 34) huptʂiʔaʔ [quuʔasʔiʔ [yaqʷiʔiq haʔuʔaʔ]_{RC}]_{NP}
hide the person who had see him

'The man who had seen him hid.'

This is the typical form of a relative clause in Nootka, but it is also possible to form a headless relative clause without the use of either the relative pronoun, /yaqʷ/, or the inflectional marker /-ʔiʔq/. In such cases, what appears on the surface is a verbal noun, usually with the specifier clitic attached. Examples of this include:

- 35) ʔaaqukʷiʔatweʔin himiʔasʔaʔ [[haʔʔukʔiʔ]_{RC}]_{NP}
Was believed go outside the one looking for

'He was believed, and the one who was looking for (Wolf) left the house.'

- 36) haʔuʔaʔaʔ ʔuyuʔaʔaʔ [[ʔimiqsuuʔiʔukʔiʔ]_{RC}]_{NP}
see perceive the one who becomes his brother-in-law

'He saw the one who had become his brother-in-law.'

The cases above are of simple constructions with only a single element within the headless relative clause, but this is not the only possibility. One may also encounter an object of the relativized transitive verb following it, as would be expected in a head-initial language. Thus there are examples such as the following:

- 37) ʔimʂaaʔaʔ qʷaʂaaʔinkʔitqak ʔuʔaʔʂaʔaʔquu kuuʔiʔʔip yaa
ashamed all together if they learn steal from that

[hamaʔapʔi muxmis]_{RC}
the one who knows stealing detection

'All your relatives (would) be ashamed if (you) were to steal (something) belonging to one who understands stealing-detection'

- 38) mitʂiʔaʔsi hitasaʔ [hitacsuʂtaʔsi ʔuuqʷaa]_S
I, at the same time he landed I come out also

[ʔucaʔiʔiʔi maʔtaath]_{RC}
the one who went to Machhla tribe

'I came out of the woods at the same time as the one who had gone to the Machhlaath landed.'

- 39) kuutʂiʔ waaʔaʔ yaa [ʔawicʂiʔiʔ ʔiʂati]_{RC}
dip in grease say there the one (person) to whom-belongs arrow(s)

'It's dipped in grease', says the one who has come into possession of the arrows''

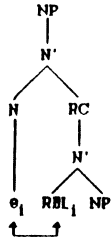
Such cases pose particular problems in that they behave very much as if there was a head noun followed by an appositive or other complement. Naturally, the second noun

only appears in conjunction with a dyadic verb, and so this may serve as an indicator of the relative clause status of the construction.

Thus, in most cases a combination of the argument structure of the original verb combined with the semantics of the construction suggest the alternative analysis of a headless relative clause

Syntactically, the representation of such structures should follow the following lines:

40)



Thus the difference between headed and headless relatives is the presence or absence of the external head, and the nature of REL, whether it contains an overt pronoun or relative inflectional marking. Note that the difference between restrictive relative clauses and appositives rests in the level at which they attach to the noun phrase: in the case of the former, it is as a sister of N, whereas for the latter it is as a sister of N'.

3.6 Pseudo-Compounding

Our final case of noun-noun collocations is that of what may be called 'pseudo-compounding'. The notion of pseudo-compounding is related to what is referred to in Greenlandic Eskimo as 'quasi-compounding' (Fortescue 1984: 330):

In stark contrast to the productivity of derivational affixation, the possibilities for compounding more than one independent lexical stem are extremely limited. The only such constructions are 'quasi-compounds' consisting of two nominals in apposition within a tightly bound noun phrase where internal sandhi or deletion

has united them into a whole treated as an inflectional unit: they were rare in the older language. (Fortescue 1984: 330)

Examples from Greenlandic provided by Fortescue (ibid) include:

- 41) unnuk 'night' + manna 'this' ⇒ unnumanna 'tonight'
 atsip 'sleeve' + paa 'its entrance' ⇒ atsipaa 'cuff (of sleeve)'
 ullup 'day' + qiqqa 'its middle' ⇒ ulluqiqqa 'midday'

However, in Nootka the distance in phonological terms between the elements combined is even greater than in Greenlandic, and for this reason it seems preferable to refer to the process as pseudo-compounding.

The cases we are referring to in Nootka involve the juxtaposition of two nouns, the first of which acts as the head of the construction, the second delimiting the range of the first, i.e., acting as a restrictive modifier. There are no morphophonological rules which apply in these cases, other than perhaps stress reduction.

- 42) ʔunaakʂiʔaλ laqm̄is ʔukʰaak [ʔiihʔii [yaʂmuut laqm̄is]_N]_{NP}
 he had oil of his own the big bladder oil

'He got some oil in a large *oil-bladder*.'

- 43) ʔuktqasaḥap [[muḥnaa ḥiiqḥiiqayak]_N]_{NP}
 set underneath on the beach machine sewing tool

'A *sewing-machine* was set under-them-on-the-beach.'

- 44) hiʔweeʔin ʔuʔucama [[suʂitʔas ʂaʔak]_N]_{NP}
 There go to flow in ground water

'It led to a *water-hole*.'

- 45) hiʔweeʔin [[ʔaaq ʔiihtuup]_N]_{NP}
 There was fat whale

It was *whale-blubber*.

- 46) $\eta\alpha\alpha\eta\eta\alpha\lambda\eta\iota$ $\kappa\alpha\tau\eta\eta\epsilon\iota\eta\alpha\lambda\lambda\eta\tau\iota\eta$ $\kappa\alpha\tau\eta\eta\epsilon\iota\eta\alpha\lambda$ | $\gamma\alpha\alpha\eta\eta\iota$ | $\eta\alpha\theta\eta\iota$ $\epsilon\upsilon\lambda\eta\epsilon\eta$]_N]_{NP}
 we sang the morning do in morning the long night winter

We sang in the morning after the long winter night.

- 47) $\eta\alpha\alpha\eta\eta\alpha\lambda$ $\eta\alpha\eta\iota$ $q^{\text{aa}}\eta\alpha\lambda\eta\eta\alpha$ $\kappa\alpha\chi\eta\iota\eta\iota\eta\alpha\lambda\eta\eta\alpha$ | $\eta\alpha\epsilon\eta\iota$ | $\eta\alpha\mu\eta\tau\epsilon\kappa^{\text{ti}}$ $\eta\iota\eta\eta\tau\upsilon\eta\upsilon\eta\eta$] _N]_{NP}
 because that were like driftwood the many bones whale

because the many whale bones were like driftwood.

- 48) $\eta\eta\eta\eta\lambda\eta\eta\alpha$ $\eta\alpha\eta\alpha$ $\eta\upsilon\upsilon\alpha\alpha\tau\eta\alpha\lambda$ $\eta\eta\eta\eta\kappa^{\text{aa}}\lambda$ | $\eta\alpha\epsilon\eta\iota$ $q\upsilon\upsilon\eta\alpha\varsigma$ $\eta\eta\eta\eta\eta\alpha\eta\alpha\theta\eta$] _N]_{NP}
 came in many dancing singing the many men Nitinat tribe

Many Nitinat men came in, dancing and singing.

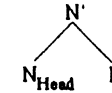
In all of these examples, the second noun acts as an adjunct to the first, rather like a reduced relative clause consisting of only the noun. The noun may be simplex, as in (44, 45), or it may contain a root plus one or more derivational suffixes.

These pseudo-compounds exhibit a common property of compounds, semantic opacity. For example, (44) does not mean a hole *in* the water but a hole *filled* with water, (45) refers specifically to a kind of fat associated with a whale, and (46) indicates a *generic* type of night, a winter night.

It is still unclear exactly what the status of these compound forms is, but it is clear that they are different from reduced relatives in not allowing definiteness to be encoded on the second noun. This also distinguishes them from appositives. Semantically, they are clearly not co-ordinated nouns, and thus we must conclude that they constitute an independent category, which for the time being, we will refer to as pseudo-compounds.

Their syntactic description may be similar to that of the relative clause structures, appearing under N', but with the further condition that they consist solely of a bare noun stem, unlike relative clauses.

49)



Comparing this structure with that of the head-possessor construction in (19), we see that the difference between the two is the presence vs. absence of the possessive marker and the inability of the second member of a pseudo-compound to bear definiteness.

4 Implications for Syntactic Theory

One clear point that arises from the preceding exposition is the necessity for a clear set of principles for dealing with noun-noun collocations in languages with properties akin to those of Nootka. One cannot rely strictly on syntactic structure, as this carries the inherent danger of circularity and the consequent potential for misanalysis. One must therefore resort to a combination of strategies involving morphological, syntactic and semantic indicators of class membership and syntactic category. The table below illustrates the various properties involved in the different kinds of noun-noun collocations in Nootka.

	Type of Collocation	Properties
1	Adjacent Arguments	1. Governed by argument structure of verb 2. Determined by thematic relations 3. Mobility of individual arguments context-dependent
2	Head-Possessor	1. Head-marking for possession 2. Head precedes possessor 3. Possessor may bear independent definiteness marking
3	Co-ordination	1. Interchangeable 2. Semantically of same status 3. Syntactically, neither may constitute the head by itself

	Type of Collocation	Properties
4	Apposition	<ol style="list-style-type: none"> 1. Left-headed 2. Appositive is non-restrictive 3. Appositive may bear independent definiteness
5	Reduced Relatives	<ol style="list-style-type: none"> 1. No external head 2. Involves nominalised verb, which may take arguments 3. Usually marked as definite
6	Pseudo compounds	<ol style="list-style-type: none"> 1. Two nouns combine, the first as head, the second as modifier 2. Compound like semantic irregularities 3. Similar structure to the head-possessor construction, but second member cannot bear independent definiteness.

With a clear understanding of these properties we can more accurately determine the exact syntactic structure of a sequence of nouns when they are encountered in the sentence in Nootka or any other language with similar properties.

5 Conclusions

The initial motivation for writing this paper was a problem that appeared with respect to determining the status of sequences of nouns within a sentence. Due to the nature of Nootka grammar, there are many opportunities for nouns to appear next to other nouns and so it becomes necessary to derive heuristics for deciding the relationship between the two nouns. In this paper we have examined six different cases of this and found that for the most part, they can be distinguished by a combination of strategies drawn from the morphological, syntactic, and semantic properties of the language. All of these must be brought to bear in some cases in order to clarify the relationships between bare adjacent nouns in Nootka

REFERENCES

- Fortescue, M. 1984. *West Greenlandic*. London: Croom Helm.
- Huddleston, R. 1984. *An Introduction to the Grammar of English*. Cambridge: Cambridge U. Press.
- Keenan, E. & B. Comrie. 1977. 'Noun phrase accessibility and universal grammar.' *Linguistic Inquiry* 8, 63-99.
- Nevis, J.A. 1998. 'Clitics.' In Geert Booij, Christian Lehmann & Joachim Mugdan, (eds), *Morphology*. Berlin: Walter de Gruyter, Handbooks of Linguistics and Communication Sciences.
- Stonham, J. 1999. *Tsishaath Nootka Phonetics & Phonology*. Munich: LINCOM Europa.