

THE CATEGORY AUX IN LUMMI

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0. Introduction. In order to establish the existence of the category AUX in Lummi, both categorial (internal) and constituency (external) criteria must be satisfied.<sup>1</sup> The principle categorial criterion requires that the elements that make up the AUX be members of a specied notional set which includes tense and/or modality (Steele 1978). In addition, the elements may have other internal properties. The elements may appear in a certain (language particular) order and they may be subject to phonological conditions (rules) not found within other grammatical categories. The principle constituency criterion requires that the elements that make up the AUX must be analyzable as a distinct constituent with syntactic properties not shared by other categories in the language. An additional (and perhaps non-essential) property of this constituent is that it will be found in either initial, second, or final position in a sentence. It is the contention of this section that both the categorial and constituency criteria for the AUX are met in Lummi, and that therefore Lummi must be counted among the world's languages that offer support for Steele's proposals for the universal properties associated with the category AUX.

There is an additional benefit to the analysis offered in this study. The status of the categories Noun, Adjective, and Verb are controversial in many of the languages of the Northwest, including Lummi.<sup>2</sup> Ever since Sapir (1921), linguists have been tempted to argue that the traditional grammatical categories of the European languages are not applicable to the

languages of the Northwest. Based on the analysis offered in this paper, we shall see, somewhat ironically perhaps, that Steele's proposals concerning the category AUX bear on the question of the status of Nouns, Adjectives, and Verbs in languages of the Northwest.

1. Satisfying the Categorical Criterion for the AUX in Lummi.

The elements which are candidates for being analyzed as members of AUX in Lummi are bound morphemes which are attached to the initial element of a Lummi sentence. A typical Lummi sentence will consist of a predicate head to which various clitic elements may be attached. Any sentential nouns always follow the initial predicate, and in the case of transitive sentences with two full nouns (not pronouns) the unmarked sentence order is VSO (Verb-Subject-Object). Representative sentences exhibiting the subject marking clitics are given in (1).

- |     |     |  |                         |
|-----|-----|--|-------------------------|
| (1) | (A) | <u>xčit-sən</u> <u>cə</u> <u>swəyʔqəʔ</u>                          | "I know the man"        |
|     |     | know-I the man   |                         |
|     | (B) | <u>xčit-sxʷ</u> <u>cə</u> <u>swəyʔqəʔ</u>                          | "You know the man"      |
|     |     | know-you the man   |                         |
|     | (C) | <u>xčit-ɬ</u> <u>cə</u> <u>swəyʔqəʔ</u>                            | "We know the man"       |
|     |     | know-we the man  |                         |
|     | (D) | <u>xčit-s</u> <u>cə</u> <u>swəyʔqəʔ</u>                            | "Someone knows the man" |
|     |     | know-3rd. the man  |                         |
|     | (E) | <u>xčit-s</u> <u>cə</u> <u>swəyʔqəʔ</u> <u>cə</u> <u>swiʔqoʔəɬ</u> | "The man knows the boy" |
|     |     | know-3rd. the man the boy  |                         |

A straight forward analysis of the above sentences allows the isolation of the following morphemes: an initial predicate (verb) xčit "know"; a set of pronominal enclitics indicating subject, -sən "I", -sx<sup>u</sup> "you", -l "we", -s "3rd person subject"; an article cə "a/the"; nouns swəy?qə? "man" and swi?qə?əɪ "boy".

In addition to the pronominal subject person markers exhibited in (1), the initial predicates of Lummi sentences may also have clitics marking other notional categories.

- (2) (A) xčit-lə-sən cə swəy?wə? "I knew the man"  
 know-past-I the man
- (B) xčit-sə-sən cə swəy?qə? "I will know the man"  
 know-future-I the man
- (C) xčit-ə-lə-sx<sup>u</sup> "Did you know it?"  
 know-Q-past-you (Where Q = question)
- (D) xčit-q-sən cə swəy?qə? "I might know the man"  
 know-Poss.-I the man (Where Poss. = possibility)
- (E) xčit-ə-q-lə-sx<sup>u</sup> "Could you have known it?"  
 know-Q-Poss.-past-you
- (F) xčit-yəq-lə-sən "I wish I would have known it"  
 know-Opt.-past-I (Where Opt. = optative)
- (G) qəp-čə cə kʷələnən "The eagle landed (I hear)"  
 alight-Rep. the eagle (Where Rep. = reportative)

The sentences in (2) exhibit a representative cross section of the enclitic particles in Lummi. There are other modalities,

but examples of them are scarce in the Lummi data, and they are therefore not discussed in this treatment. The most common occurrences of the Lummi clitic particles are given in (1) and (2), and are displayed in Table 1 for ease of reference.

Question	Modality	Tense	Person Subject
-ə-	-q- (possibility)	-sə- (future)	-sən (1st. person sing.)
			-sx <sup>w</sup> (2nd. person.)
	-yəq- (optative)	-lə- (past)	-l (1st. person pl.)
	-čə (reportative)		-s (3rd. person)

TABLE 1 Lummi Clitics: Indicative Sentences

The Lummi enclitic particles mark yes/no questions, modality which includes at least possibility and optative, two tenses (past and future) and a range of person subjects. The notional categories found in the Lummi clitics, then, coincide with the notional categories associated with AUX under Steele's proposal. The principle Categorial Criterion for AUX is therefore met by the sequences of bound clitics in Lummi. Moreover, the clitics have an internal structural integrity which can be represented by the formula in (3).

$$(3) \quad \left\{ (Q) \quad (Modal) \right\} \quad \left\{ Tense \quad Person \right. \\ \left. Subject \right\}$$

The order of elements of the Lummi enclitics is Q (question marker), Modality, Tense, and Subject Person marking. The braces around the first and second pairs of elements reflect the fact that the order of the elements within the brackets occasionally varies (under conditions not understood). However, the order of the elements between the braces is strict. Another difference is also found between the two braces. Whereas Question and Modality are optional categories, tense and person are obligatory. The standard parenthesis notation for optionality represents this fact.

In addition to the ordering conditions on the clitic elements, there is also a morpho-phonological regularity unique to this clitic sequence. For example, the sentence /yeʔ-sə-l/ "We will go" is actually pronounced yeʔ-ləl. The future marker sə becomes lə by regressive assimilation to the following first person plural marker l. This predictable regressive assimilation appears to be limited to this sequence of particles.

Summarizing, the Categorial (or Internal) Criterion for the AUX is met in Lummi. The clitic elements coincide with the predicated notional categories. Moreover, the elements have an internal coherence in that they obey conditions on the order of appearance and obey unique phonological conditions.

2.0 Satisfying the Constituency (or External) Criterion for the AUX in Lummi. The Lummi case regarding the question of the constituency of AUX is significant because one is faced with the more general question of whether a sequence of bound

particles can be analyzed as an autonomous syntactic constituent. Sentence (2c) is repeated as (4) below in order to illustrate the question to be investigated.

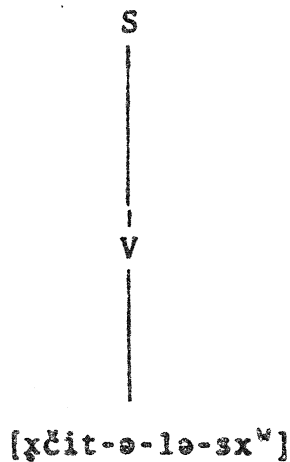
(4) xčit-ə-lə-sx<sup>w</sup>

"Did you know it?"

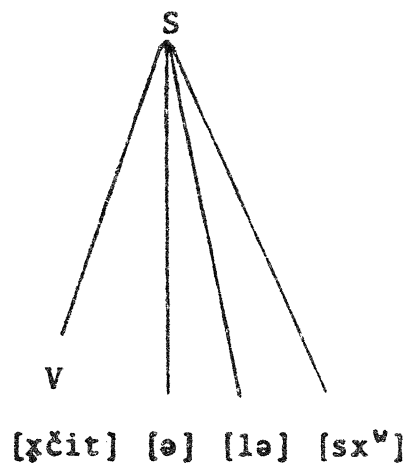
Know-Q-Past-you

The question regarding the status of bound morphemes can be put in another way. What is the phrase marker that is to be associated with the sentence in (4)? Three plausible possibilities are given in (5)<sup>3</sup>.

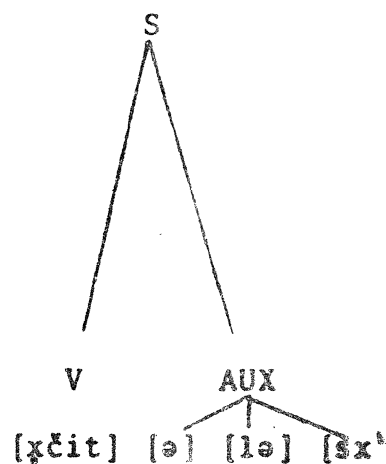
(5)



Tree A



Tree B



Tree C

Tree A represents an analysis in which the clitic elements which are attached to the verb are affixes, and thus form a unit with the verb. Tree B represents an analysis in which the elements which are attached to the verb are essentially independent and have no structural relationship to each other. Tree C represents an analysis in which the sequence of clitics is a constituent, and is, of course, the structure which must be

justified in order to demonstrate that AUX exists as a constituent in Lummi.

The motivation for Tree C will be based primarily on conditions related to sentence level properties of the Lummi AUX. The following syntactic facts are crucial in the establishment of the sequence of clitics as an independently analyzable constituent of Lummi sentences: 1) The Second Position Condition. The sequence of clitics satisfies a distributional condition in that they appear attached to the first major constituent of a Lummi sentence; 2) The Sentence Level Interpretation Condition. Although the sequence of clitics is attached to the first element of the sentence, they are not interpreted compositionally with that element; rather they are interpreted over the sentence; 3) The Minimal Interaction Criterion. Although the sequence of clitics forms a phonological unit with the word to which they are attached, the addition of this sequence of clitics does not interfere in a primary way with the other phonological properties of the word to which they are attached.

2.1 The Second Position Condition. Among the most prominent conditions involving the string of clitics in Lummi is that they will normally appear attached to the sentence initial constituent. A set of sentences, similar to those given in (2A-2E) is given in (6) following to demonstrate this "Second Position" property.



- (6) (A) λ'el-lə-sən      ʔuʔ      xčit   cə   swəyʔqəʔ  
also-past-I      aspectual      know the      man  
particle

"I knew the man too"

- (B) λ'el-ə-sə-sən      ʔuʔ      xčit    cə    sweyʔqəʔ  
also-Q-future-I    aspectual    know the    man  
particle

"Will I know the man too?"

- |     |                                 |                       |             |
|-----|---------------------------------|-----------------------|-------------|
| (C) | <u>λ'el-ə-lə-sx<sup>u</sup></u> | <u>ʔuʔ</u>            | <u>xčit</u> |
|     | also-Q-past-you                 | aspectual<br>particle | know        |

"Did you know it"

- |     |                   |                       |             |           |                 |
|-----|-------------------|-----------------------|-------------|-----------|-----------------|
| (D) | <u>λ'el-q-sən</u> | <u>ʔuʔ</u>            | <u>xčit</u> | <u>cə</u> | <u>swəyʔqəʔ</u> |
|     | also-poss.-I      | aspectual<br>particle | know the    |           | man             |

"I might know the man too"

- |     |                                   |                       |             |
|-----|-----------------------------------|-----------------------|-------------|
| (E) | <u>λ'el-ə-q-lə-sx<sup>w</sup></u> | <u>ʔuʔ</u>            | <u>xčit</u> |
|     | also-Q-poss.-past-you             | aspectual<br>particle | know        |

"Could you possibly have known it too?"

The particles which were present on the verb x'cit in the examples in (2) are now on the adverb λ'el which has been added to the first five sentences of (2). These sentences exhibit a property which furnishes important evidence for the distinctness of the constituent AUX: AUX is the only constituent which obeys the condition that it appear attached to the initial element of the sentence. For the argument to go through, however, it must be shown that the sequence of particles appears

after λ'el because of a sentential criterion of clitic placement and not because of some property of λ'el. It is conceivable that λ'el could be analyzed as a predicate (or more extremely, some type of verb), and not as an adverb. The labelling of parts of speech is a notoriously complex issue in Northwest languages. Two properties of λ'el suggest, however, that it is not to be associated with the category predicate (or verb). The first property of the word λ'el is that it does not require that predicates following it be subordinated, as in the following sentence:

- (7) qel-sən    k<sup>w</sup>    s-xčit-s    ce    swəy'qə?    "I believe that  
believe-I    that nom.-know-3rd the man    he knows the man"

Sentence (7) has two features that show that subordination of xčit is involved. First, k<sup>w</sup> is a subordinating particle (or complementizer), and second, the verb xčit has a prefix s- (nom. = nominalizer).<sup>4</sup> Neither of these features of subordination is found in any of the sentences of (6). It would appear then, that λ'el is simply an additional sentence level element which can appear in Lummi sentences which does not alter the basic sentence structure (other than bearing the sequence of sentential clitics).

Further evidence that λ'el is different from typical Lummi predicates is that λ'el has a property that true predicates do not have--a greater degree of freedom in the word order of a sentence. True verbs in Lummi are rigidly bound to the initial position of their clauses. A typical Lummi sentence

containing two predicates has already been given in (7). In this sentence each of the predicates qel and xčit must appear at the beginning of their respective clauses. In contrast, the λ'el that appears in sentence initial position in the sentences in (6) may also appear in sentence final position. An alternative form of (6E) is given in (8).

(8) (A) xčit-ə-q-lə-sx<sup>w</sup> λ'el "Could you have possibly known it too?"

(B) \*xčit λ'el-ə-q-lə-sx<sup>w</sup>

Sentence (8A) is a grammatical variant of (6E) in which only a change of focus is involved.<sup>5</sup> Sentence (8B) is ungrammatical because the sequence of clitics is not in its proper position. We shall now formalize the statement of the second position condition in Lummi, specifying the sequence of clitics in Lummi as the AUX:

(9) Lummi Sentence Well-Formedness Condition: [C+[AUX]-Y]<sub>S</sub>

Lummi sentences will conform to condition (9), which may be viewed as a surface filter in the sense of Chomsky and Lasnik (1977).<sup>6</sup> In the formula, C is a major lexical category (Noun, Verb, Adjective, and Adverb), and Y is a syntactic variable.

Due to the existence of condition (9), then, in the grammar of Lummi, the constituency criterion for the AUX is satisfied. The sequence of clitic particles must be analyzed as AUX in order to satisfy condition (9). It is not necessary to include the list of all Lummi clitics in the formula in (9) if a single

constituent subsumes them all. The sequence of clitics in (3) can now be stated as in (10).

$$(10) \text{ AUX} \longrightarrow \left\{ (Q) \quad (\text{Modal}) \right\} \left\{ \begin{array}{l} \text{Tense} \quad \text{Person} \\ \text{Subject} \end{array} \right\}$$

The case for analyzing AUX as a distinct sentence level category becomes even stronger when a new class of sentence is considered. The Lummi clitics are independent of the verbal morphology and not only may be attached to adverbs, but also to nouns and adjectives.

- (11) šx<sup>w</sup>ənem-ə-lə-sx<sup>w</sup> "Were you a doctor?"  
 doctor-Q-past-you  
ʔəy<sup>?</sup>-ə-lə-sx<sup>w</sup> "Were you good?"  
 good-Q-past-you

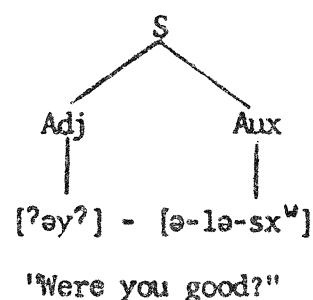
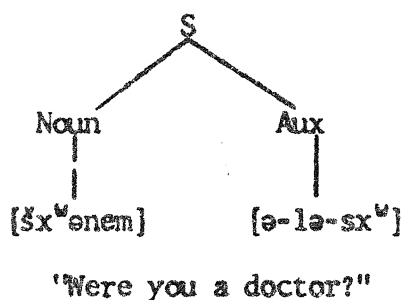
Sentences such as (11) have led many linguists to propose that the part of speech distinction in Lummi is not the same as it is in European languages. Although Kuipers (1968) has argued that Squamish (a Coast Salish language closely related to Lummi) does not distinguish nouns, verbs and adjectives in the same way that these categories are distinguished in European languages, it can be shown that there are independent reasons for distinguishing parts of speech in Lummi more or less along traditional lines.<sup>7</sup> A semantic reason for distinguishing nouns from verbs involves the lack of predictability of meaning relationships between morphologically related verbs and nouns. For example, the verb root təqə(s) - means "to shut off" or "to close". When combined with the suffix -tən, creating an instrumental noun, the word təqəstən is formed. The meaning of

this word is quite narrow, referring to a net on poles used for trapping ducks. Thus, two lexical entries, one for the noun and one for the verb are required.

A second reason for distinguishing nouns from verbs is that only verbs productively undergo transitivizing processes. Although both ?əne? "come" and swəy?qe? "man" could be analyzed as intransitive predicates, only ?əne? can take the suffixes t-ŋ to form the verb ?əne?-t-ŋ "to be brought". The form \*swəy?qə?-t-ŋ does not occur.

The reason that nouns and adjectives appear to be verb-like, then, is a consequence of the fact that 1) Lummi does not have a copular verb ('to be'), and 2) the AUX must be attached to the first element of a Lummi sentence. This second position property of the AUX, as specified by (9), yields a superficial similarity among nouns, adjectives, verbs, and even adverbs. Thus, not only does Lummi have a distinct category AUX, it has nouns, adjectives, and verbs as well. The structures for the sentences in (11) are given in (12).

(12)



2.2 The Sentence Level Interpretation Condition. This condition requires that the Lummi AUX be analyzed as a sentence level constituent, even though it may be closely bound to a particular word and thus appear to be part of

the morphological structure of that word. That the AUX is definitely not interpreted as part of the word to which it is attached is shown clearly by the following case. The sequence ?əné?-sən (came-I) is translated as "I came/come". The sequence leŋ-t-ŋ is a passive construction which has in isolation the meaning "It was seen". A Lummi purposive construction can be formed by combining the above two verbs to form ?əne? leŋ-t-ŋ which means "Someone came to see someone/something". Consider now the following sentence.

(13) ʔəneʔ-sən leŋ-t-ŋ "Someone came to see me"

What is interesting about this sentence is that the -sən is not interpreted as the subject of ʔəneʔ (to which it is attached), but rather -sən must be interpreted as the subject of the verb leŋ-t-ŋ. We would expect the meaning associated with ʔəneʔ-sən leŋ-t-ŋ to correspond to the sequence ʔəneʔ leŋ-t-ŋ-sən, since intransitive verbs such as ʔəneʔ have null subject marking in the third person. The sentential property of Lummi that requires the AUX to be in second position creates a situation, however, in which the strict linear interpretation of Lummi words would yield an incorrect reading.

Even compound words can be split due to condition (9). For example, mək<sup>w</sup> by itself means "every, all", and wet by itself is an interrogative meaning "who". The combination mək<sup>w</sup>-wet means "everybody". Note, however, the position of the AUX in the following sentence.

(14) məkʷ -ə-q-lə-wet      ʔuʔ      yeʔ      "Could everyone have gone?"  
every-Q-Poss.-past-who      aspect go

Based on sentences such as (13) and (14) and earlier (6), it is clear from a perceptual standpoint that the Lummi AUX must be processed as an element which is distinct from the item to which it is superficially attached. The domain of interpretation is the sentence (or perhaps, phrase) in which the AUX is found.

2.3. The Minimal Interaction Condition. Although the Lummi AUX is encliticized onto sentence initial words, it interacts with that word only minimally. This lack of interaction is in marked contrast to another set of morphemes which can be attached to verbs. For example, there is a rather rich set of affixes which can be added to verbs. Consider the different forms of the verb root čəs "to be hit" (actual aspect, cf. Thompson and Thompson (in press)) in the following paradigm.

- |        |                                |                            |
|--------|--------------------------------|----------------------------|
| (15)A) | <u>čəs-sən</u>                 | "I got hit"                |
| B)     | <u>čəs-t-sən</u>               | "I hit it (on purpose)"    |
| C)     | <u>čəs-nəx<sup>w</sup>-sən</u> | "I hit it (accidentally)"  |
| D)     | <u>čəs-t-ŋ-sən</u>             | "I got hit (on purpose)"   |
| E)     | <u>čəs-n-ŋ-sən</u>             | "I got hit (accidentally)" |
| F)     | <u>čəs-t-ŋəs-sən</u>           | "I hit you (on purpose)"   |

In sentences (15B), (15D), and (15F), the transitivizing suffix -t occurs. This suffix indicates that the subject has some degree of conscious control over the action expressed by the verb. In sentences (15C) and (15E), in contrast, the suffix -nəx<sup>w</sup> (or its variant -n) indicates a lack of conscious control over the action expressed by the verb. Sentences (15D) and (15E) exhibit the detransitivizing suffix -ŋ which

yields sentences similar to English passive sentences. Finally, sentence (15F) has the suffix -onəs, which in this case indicates that the object is second person. The important difference between these affixes and the affixes which have been analyzed as part of the Lummi AUX are 1) the affixes in (15) are rigidly bound to a verb, and 2) they interact phonologically with the verb, frequently determining some of its phonological properties.

The rigidity of the attachment of the suffixes is shown by the lack of grammaticality of (16B) and (16C).

(16)A) λ'el-lə-sən ?u? čəs-t-δnəs "I hit you too"  
also-past-I asp. hit-trans.-you

B) \*λ'el-t-onəs-lə-sən ?u? čəs

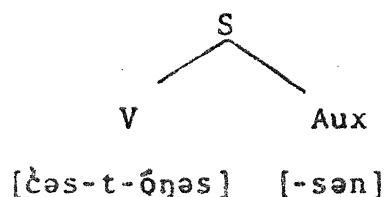
C) \*λ'el-onəs-lə-sən ?u? čəs-t

The affixes, t, nəx<sup>w</sup> (ŋ), ŋ, -onəs, then, always and only are attached to verbs. In addition, the addition of these affixes may influence phonological properties of the verb root. For example, the suffix -onəs always bears the main stress in the constructions in which it occurs (as indicated in (15F)), in spite of the fact that the verb root usually bears the main stress (as shown in (15A-E)). In contrast, the elements which make up the constituents of the AUX do not influence the position of the stress on the verb root. ~~The~~ lack of interaction of the members of the string of clitics with the phonological properties of the words to which they are attached is consistent with the contention that they form a distinct constituent in



Lummi sentences. For (15F), then, the structure in (17) seems appropriate.

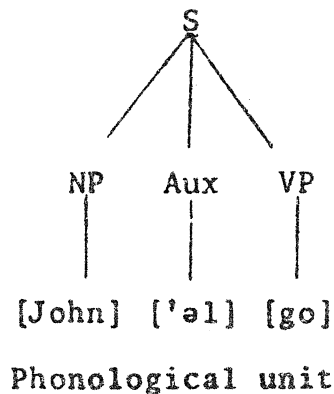
(17)



The assignment of constituency to the -sən in the structure in (17) is valid, in spite of the fact that the two units, the verb and the AUX form a cohesive unit in terms of the pronunciation. It is a well-known fact that languages frequently group portions of sentences into units of phonological organization that do not correspond to labelled syntactic structures. For example, the English sentence [This is [the cat that caught [the rat that stole the cheese]]] is frequently cited as an example in which the intonation breaks (between cat and that, and rat and that) do not correspond to the major constituent breaks which have been marked with square brackets. A more extreme case from English is the casual speech pronunciation of the sentence What do you want? (WADəyə wan?). The initial phonological sequence WADəyə is word-like in that it obeys the intonation and stress contours as well as the low-level phonetic rules of words. How is this sequence to be labelled in an English phrase marker? Even though the canonical English sentence is NP + VP, the sequence wADəyə does not satisfy any of the tests for being an NP. Can languages have sequences of morphemes which have the phonological structure of

words, yet these sequences do not correspond to traditional parts of speech? The answer appears to be yes (consider λ'el-lə-sən in sentence (16)). Thus, languages may have phonological sequences which are made up of distinct syntactic categories, in spite of the fact that the phonological unit does not correspond to any syntactic category. This is the proposal made for Lummi sentences such as (16A). A similar case appears to hold in English. In the sentence John'll go, the initial sequence John'll appears to be a single phonological unit, and is even reflected as such in our informal orthography. The English phrase marker, however, would have the following tree.

(18)



That the contracted form 'əl/l of will nevertheless has some degree of independence from John can be seen in sentences such as John always 'əl go. The occurrence of the contraction of will to 'əl appears then to be independent of the initial John, and in the case with adverb always intervening between the subject John and 'll some speakers perceive the 'əl as

being proclitic on the verb go (as argued by Bresnan 1971). In sum, clitic elements may be grouped into phonological units with other parts of speech, but this is the result of independent rules of prosodic phrasing that create units which are not isomorphic with syntactic structures.<sup>9</sup> Thus, the fact that Lummi clitics are obligatorily bound to sentence initial words cannot be used as an argument that these clitics cannot be independent syntactic constituents.

3. Summary. Every Lummi sentence, then, is interpreted as containing an AUX, even in the cases where no AUX element is overtly present in the sentence. In other words, not only is tense and subject marking an obligatory part of AUX, AUX is an obligatory part of every indicative sentence in Lummi. This fact is demonstrated by the following Lummi sentences:

(19) Intransitive Verbs:	<u>ye?</u>	"Someone goes/went"
Adjectives:	<u>?ay?</u>	"Someone/Something is/was good"
Nouns:	<u>\$x<sup>w</sup>nem</u>	"Someone is a doctor"

The third person marker is null in intransitive predicates, and the unmarked tense refers to present time. The subject referred to in "sentences" such as those in (19) is usually interpretable from context. Lummi differs, then, from English in that isolated words in English are not normally interpreted as making an assertion.

In sum, the Lummi AUX consists of a sequence of clitic particles whose existence as a distinct category and constituent

are established through the satisfaction of the following criteria:

1. The Categorical Criterion. The meanings of the Lummi clitic particles coincide with the notional set specified by Universal Grammar. The sequence of clitic particles is internally coherent in that they appear in a specified order.
2. The Constituency Criterion. The AUX is an obligatory, sentence level constituent in every Lummi indicative sentence. It is the only syntactic constituent that satisfies the condition that it appear in second position.

Notes

1. Lummi is a member of the Salish family of languages and is now spoken natively by a handful of people. The Lummi Reservation is located in the northwest corner of Washington State. The language data are from Mr. Al Charles, a speaker of Lummi who has patiently contributed his time and his intelligence to the study of his language. I would like to thank the Office of the Vice-President for Research at the University of Arizona for its generous support of Lummi Research.
2. Although there are several different language families in the Northwest, they share features of structural similarity. Thus one can speak of the grammatical properties of Northwest languages, referring to languages in non-related families.
3. Other possibilities for phrase markers are, of course, conceivable. The trees in (4), however, are the most plausible. The AUX does not always have to be attached to the initial constituent, although it usually is. If not attached to the initial adverb it will be attached to the verb.
4. The particle k<sup>w</sup> also functions as a definite article indicating remoteness. Thus k<sup>w</sup> swəyʔqəʔ refers to a man (not present) and may metaphorically indicate that he is deceased.
5. The sentence with the subject marker attached to λ'el implies that the subject has a greater degree of responsibility

or control over the situation than is the case when the subject marker is attached to the verb.

6. Certain aspect markers may appear in sentence initial position which do not have clitics attached. They have been left out of consideration since they do not bear on the issues discussed in this study.
7. For an excellent assessment of the part of speech controversy in Northwest languages see Jacobsen (1976).
8. Adrian Akmajian (personal communication) has suggested that the sequence wADəyə satisfies conditions for being analyzed as a new AUX element. In other words, the English Sentence wADəyə wan? consists of two constituents, an AUX and a verb.
9. See Selkirk (forthcoming) for an excellent study of the relationship between syntactic structures and prosodic phrasing.

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