# On the Class of Adjectives in Coast Tsimshian<sup>1</sup> Tonya N. Stebbins University of Melbourne

## Introduction

This study was motivated by an analysis of Coast Tsimshian parts-of-speech which is being undertaken in connection with the preparation of a dictionary of Coast Tsimshian. The following discussion considers the relationship between the semantic class of Adjectival meanings and the grammatically defined class of Adjectives in Coast Tsimshian.

The class of Adjectives does not occur as a large open class in all languages. In this paper I will argue that Coast Tsimshian is a language which has a small closed Adjective class (§1). Other Adjectival meanings are expressed by Verbs and Nouns in Coast Tsimshian (§3). It is possible to distinguish between Adjectival meanings in these classes on the basis of their grammatical characteristics. This is quite typical for a language with a small adjective class.

In 1977 Dixon published a seminal discussion of languages with closed Adjective classes. He examines Adjectival meanings according to their semantic type (for example, Colour and Value). Based on the data he examines, Dixon postulates a relationship between the semantic types and part of speech membership of Adjectival meanings. One purpose of this paper is to compare Dixon's findings with data from Coast Tsimshian (§2).

Finally, some work has considered what properties of Adjectival meanings allow them to occur as nous and verbs in so many languages. I will briefly discuss the notion of 'time stability' from Givon 1984, and Thompson's 1988 functional account. In conclusion I make some general comments about Adjectival meanings which are relevant both to Coast Tsimshian and cross-linguistically (§4).

## **1** Coast Tsimshian

Boas (1911) described Coast Tsimshian as containing a large number of 'particles' which are associated with Verb and Noun stems. The particles vary in terms of their phonological dependence, their functions, their productivity, and their semantic richness or lexicality.<sup>2</sup> These particles need to be fully analysed if a thorough

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description of Coast Tsimshian parts of speech is to be made. There are two basic issues associated with developing an analysis of particles in Coast Tsimshian. Firstly we must consider their status in the lexicon; to decide whether the particles are inflectional or derivational morphemes, or simply phonologically dependent words; and secondly we must find some way to distinguish grammatically defined subsets within the category.

Particles require some account as they form a significant part of the lexical resources of the Coast Tsimshian language. Linguistic theory, particularly through the work of Zwicky (1985), and Zwicky & Pullum (1983) no longer accommodates acategorial parts of speech. The category of 'particles' is acategorial in that members of this category share no positive defining properties. In general, forms have made their way into this class by virtue of not clearly belonging anywhere else. This is often because the function and distribution of the particles is poorly understood. When Boas listed the particles of Coast Tsimshian, he made it clear that his analysis was incomplete in several respects (cf Boas 1911:313).

Parts of speech are generally defined according to characteristics which are shared by members of the class. For example the fact that Nouns trigger agreement on the Verb can be used as a way of defining and identifying the class of Nouns. It is not necessary that all Nouns share this characteristic in every context. Parts of speech are defined in terms of a set of shared characteristics. Thus there is some scope for variation from the norm. We can recognise Nouns as a part of speech because most Nouns will share most of the characteristics of Nouns most of the time. In contrast with this type of description the category of particles could well be called the category of leftovers. Its members are defined most succinctly by their lack of shared characteristics.

Pullum has objected strongly to the strategy of identifying acategorial classes on the grounds that:

it formulates a distinction between [categorial and acategorial] words in a language for which there is absolutely no warrant in terms of the intuition of the native speaker (Pullum 1982:182).

Zwicky & Pullum also note there are serious methodological problems with defining a class in this manner:

There seem to be no grammatical generalisations that are correctly stated in terms of this distinction [ie. categorial versus acategorial words]...lumping acategorial words into a class predicts ... that there should be generalisations over this class ... (Zwicky & Pullum 1983:293).

It is possible to dispense with a certain number of Coast Tsimshian particles by analysing them as examples of derivational and inflectional morphology. In this way sets of particles can be categorised according to their derivational or inflectional association with a particular lexical class.

Bybee uses the concept of semantic relevance as a means of distinguishing between inflectional and derivational morphology (1985:4). Her claim is that:

<sup>&</sup>lt;sup>1</sup> I would like to thank Jean Mulder for her comments on a draft of this paper. The work presented here has been based primarily on information in Boas 1911, Dunn 1978 and Dunn 1979. Although a few examples of adjectival words in naturally occurring data have been cited from Mulder 1994, most require further checking, hence the somewhat speculative nature of my comments.

<sup>&</sup>lt;sup>2</sup> These particles are never phonologically independent words. They are generally described as affixes in the literature, although some are in fact clitics. As Coast Tsimshian evolves into a written language some of these particles are treated as orthographically independent words. This seems to be motivated by the processing needs of readers (shorter words are easier to read) but it may also signal a move away from polysynthetic to a more analytic style of language. I expect that the derivational particles may be more phonologically dependent on the stem and therefore more orthographically dependent than the lexical ones - this is true at least of the Adjectives

which come outermost on compound Noun constructions (cf. section 3.2.3). It would be interesting to survey some recent written material to see if this is indeed the case.

the degree of morpho-phonological fusion of an affix to a stem correlates with the degree of semantic relevance of the affix to the stem.<sup>3</sup> The semantic relevance of an affix to a stem is the extent to which the meaning of the affix directly affects the meaning of the stem (Bybee 1985:4).

Inflectional morphology is used to encode grammatical rather than semantic meanings in the clause. For example, the plural suffix -s in English marks plural nouns, but has no particular affect on the meaning of the stem. It is reasonably casy to distinguish from derivational morphology because of its function. It is the structure and to some extent the pragmatics of an utterance which determine the presence of inflectional morphology. In Bybee's terms inflectional morphology has low semantic relevance to the stem. The forms of inflectional morphology generally occur in small paradigms with parameters such as person and case and show very little sensitivity to the meaning of particular words.

In contrast to inflectional morphology which is tied to the syntax of the clause, derivational morphology is tied to the semantics of the word. Derivation morphology is used to make new words from already occuring stems. It is a tool which speakers use to create words to refer to and predicate on entities in the world. For example, English speakers can create a noun *limitation* from the verb *limit*.

In addition to distinguishing between inflectional and derivational morphology I am using Bybee's concept of semantic relevance to distinguish a further class of phonologically dependent forms; the lexical morphemes. An example of a lexical morpheme from English is the preix *bio*- which means 'pertaining to life'. It can be combined with forms such as *graphy* 'pertaining to writing.' The resulting word *biography* contains both meanings 'written life of a person'. In Coast Tsimshian, lexical forms are distinguished from derivational and inflectional forms on the basis of their semantic content, distribution, and function. There also seem to be regular correlations between particles in particular classes and their phonological characteristics (see footnote 1), however these correlations do not correspond to the general expectations of the linguistic construct of the 'word'.

As the general expectation in the literature is that distinct lexical forms will correspond with distinct phonological forms (ie., words), there is not very much discussion of the differences between derivational and lexical morphology. (Indeed lexical morphology is frequently used as a synonym for derivational morphology.) In Coast Tsimshian this does not suffice.

It is also possible to distinguish derivational forms from lexical forms on the basis of their affect on the stem. As Bybee notes, derivational forms change the meaning of the stem to which they are attached in a significant way (ie. are semantically relevant to the stem). Lexical forms, while they contribute to or change the meaning of the clause, do not alter the meaning of the stem. They are semantically relevant to the clause rather than the stem.

<sup>3</sup> This is why I predict that the Adverbial and Adjectival forms will be less phonologically dependent than the derivational forms. See comments in footnote 1.

It is possible to use explicit tests for distinguishing between inflectional, derivational and lexical forms. Like inflectional morphology, lexical morphology does not change the meaning of the stem. That is it has low semantic relevance because it does not change the meaning of the stem per se. However rather than coding grammatical information, lexical morphology carries semantic meaning. In Coast Tsimshian some Adjectives and many Adverbs occur as lexical morphemes.

In order to determine whether a form should be considered as a derivational affix or as a lexical form which happens to be phonologically dependent on the stem, the referential semantics of the stem and the stem + affix can be used to measure the amount of change in the meaning of the stem. If the referential meaning of the stem is not changed then the particle cannot be considered a derivational morpheme. This test is illustrated in the following examples which examine the affects of two particles on the Noun *ol* 'bear':

- 1. The affix gwüs- forms the word gwüsol 'bear-skin coat'.
- 2. The affix mes- forms the word mesol '(red) cinnamon bear'.

In the first case it is no longer true that the word refers to a bear. It refers instead to a coat (which is made of bear skin). For this reason I judge that the prefix *gwüs*- is a derivational form. In the second case it remains the case that the word with *ol* as its stem refers to a bear. A red bear is unequivocally a bear. The prefix does not change the reference of the stem, rather it contributes more information. I conclude that *mes*- is a lexical prefix. It belongs to the small closed class of Adjectives which occur as proclitics within the Coast Tsimshian NP.

# 2 Adjectival meanings

A general functional definition of Adjectives is that they are words which modify Nouns. It has been necessary to refine this definition as the classes of numerals and quantifiers also modify Nouns, and form distinct parts of speech in Coast Tsimshian.

A standard notional definition of Adjectives is that they denote qualities or attributes (cf Schachter 1985:13), serves to exclude quantifiers from the set, but is still rather vague. Many abstract qualities, for example 'truth', may be treated as Nouns - even in English.

In fact the boundary between Nouns and Verbs seems to be straddled by the semantic category of adjectival meanings in many languages including Coast Tsimshian. The ease with which Adjectival meanings move from one category to another, and the concentration of adjectival meanings in a particular class are language specific characteristics. The position of Adjectives on Givon's time-stability scale reflects the fluid nature of their class membership:

NOUNS	ADJECTIVES
most time-stable	intermediate states

rapid change

VERBS

Table 1: Time-Stability Scale (Givon 1984:55)

Givon's scale suggests that where a language lacks a (large open) class of Adjectives, these meanings will be shared between the classes of Nouns and Verbs.

The scale shows that Adjectival meanings can have alternate forms which belong to the grammatical category of Verbs or Nouns:

In Adjective/Verb pairs of this type, most commonly the Adjective denotes a more stable state than the Verb. While in Adjective/Noun pairs, the Adjective most commonly denotes a less stable condition than the Noun.

According to Dixon "Semantically, an Adjective describes some important but non-criterial property of an object (1977:63)." He lists seven semantic types commonly associated with the class of Adjective. All these words are used to modify referents (Ns) and all refer to 'qualities or attributes'. They include the following:

SEMANTIC TYPE	CATEGORY MEMBERS, INCLUDING:
Dimension	big, large, little, small, long, short, wide, narrow, thick, fat, thin
Physical property	hard, soft, heavy, light, rough, smooth, hot, cold, sweet, sour
Colour	black, white, red
Human propensity	jealous, happy, kind, clever, generous, cruel, rude, proud, wicked
Age	new, young, old
Value	good, bad, proper, perfect, pure, excellent, delicious, atrocious, poor
Speed	fast, quick, slow

Table 2: Adjectival meanings by semantic category (adapted from Dixon 1977:31)

Dixon's data suggested a correlation between the part of speech membership and the semantic type in many languages. He postulated that this correlation might hold cross-linguistically. Dixon's findings are summarised in the following table:

SEMANTIC TYPE	LIKELY PART OF SPEECH:
Dimension	Adjectival
Physical property	Verbal if not Adjectival
Colour	Adjectival
Human propensity	Nominal if not Adjectival
Age	Adjectival
Value	Adjectival
Speed	Adverbial if Physical Property is Verbal, if not Adjectival

 

 Table 3: Grammatical categories for Adjectival meanings by semantic category (adapted from Dixon 1977:56)

Dixon's original survey covered the following seventeen languages:

Swahili, Luganda, Bemba, Japanese, Sango, Hausa, Acooli, Hua, Alamblak, Talugu, Kiriwinian, Tzotzil, Chinook, Yurok, Samoan, English, Dyirbal.

Of particular interest in this context are his comments on Chinook which seem to be based on Boas (1911). He finds that Speed, Colour, Value and most Physical property terms are PARTICLES. The remaining Physical

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property terms, and all Dimension words are masculine Nouns, as are many Human propensity words. The remaining Human propensity words and all Age words are expressed as Verbs.

Dixon's findings about Chinook are summarised in the following table:

SEMANTIC TYPE	PART OF SPEECH IN CHINOOK:
Dimension	Noun
Physical property	Particle / Noun
Colour	Particle
Human propensity	Noun (masc) / Verb
Age	Verb
Value	Particle
Speed	Particle

 Table 4: Grammatical categories of Adjectival meanings in Chinook
 (adapted from Dixon 1977:53-54)

On the baisi of this data Dixon (1977:64) states that 'Chinook is in fact the only language thus far encountered whose type/part-of-speech correlations are not readily explainable.'

Coast Tsimshian too has been analysed as having a large set of particles. Boas lists 180 proclitic particles in his 1911 description of Nishga and Coast Tsimshian. Although Boas draws several distinctions within the group, he certainly does not go so far as to categorise these 'particles' as distinct parts of speech in the manner I am advocating.

In the remainder of this paper I categorise the Adjectival resources of Coast Tsimshian and compare them to Dixon's predictions.

## 3 Adjectival meanings in Coast Tsimshian

According to the analysis presented here, Adjectival meanings are expressed in three different ways in Coast Tsimshian. Firstly they may function as the predicator in a clause; that is, as the Verb in a clause; secondly they may be present within a noun phrase either as Nouns or as members of the small closed class of phonologically dependent Adjectives.

### 3.1 Adjectival meanings expressed as Verbs

Coast Tsimshian uses Verbs in order to convey the majority of Adjectival meanings. Verbs in Coast Tsimshian may be identified as the class which takes the objective and definite objective series of dependent Pronouns as suffixes.

The following sentences contain subjects which are modified by criterial information in the predicate:

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(1)	Ada sm ada sm	ngal <b>gwaatkt</b> ngal <b>gwaatk-t</b>	'niit 'niit		
	and ver 'And he	ry cold-3.SU was very cold.'	BJ 3rd.pers	on	
(2)	Smgal smgal very	baas'nut baas-a'nu-t afraid-1SG.SUBJ	opdza opdza lest	dzagi dzag-i die-1SG.SUB.INDEF	
	'I am rea	ally afraid lest I die.'			(Mulder 1994:)

As the following table shows, Coast Tsimshian uses verbs to express Adjectival meanings of each of Dixon's semantic types.

72.4)

SEMANTIC TYPE	EXAMPLE
Dimension	n <u>a</u> k '(be) long'; wiilee '(be) wide'; <u>ga</u> wsk '(be) narrow'
Physical property	a'adzik '(be) straight'; daaw '(be) frozen'; <u>asgaatsk</u> '(be) rough'
Colour	blagmloop '(be) mossygreen'; gwisgwaask '(be) blue'
Human propensity	aalx '(be) bold'; wilaa'kls '(be) clever'; gwe'a '(be) poor'
Age	sup'as '(be) young'
Value	aam '(be) good'; t'oxtk '(be) valuable'; hat'axk '(be) bad'
Speed	galaaltk '(be) slow' ;

Table 5: Adjectival meanings as Verbs in Coast Tsimshian (based on Dunn 1978)

While this appears to be a fairly comprehensive set of examples several comments must be made. Firstly, there seems to be a certain amount of V -> N conversion (this is discussed further in section 4.2.2), so that some of these forms also occur as Nouns. In many cases I am not clear whether the Verb is in fact the primary form. In the case of Age I suspect that most words are in fact primarily Nouns. The form *sup*'as generally, if not always, occurs as a Noun in the texts I have cited although it is formed from the verb *p*'as 'grow' and the adverbial prefix *su*- 'newly'. Unfortunately this is the only data I have for the semantic category of 'Age' at this stage. The other important exception is the set of colour words which generally appear to be Nouns (the words listed above being the only colour Verbs I have found). Finally most of the words for Speed occur as Adverbs.

Dixon's predictions about the likely part of speech of adjectival meanings is repeated below, and compared with the Coast Tsimshian material just discussed. Where more than one category has been noted, these are listed in order of frequency.

SEMANTIC TYPE	DIXON'S PART OF SPEECH:	COAST TSIMSHIAN PART OF SPEECH
Dimension	Adjectival	Verb
Physical property	Verbal if not Adjectival	Verb
Colour	Adjectival	Noun, Verb
Human propensity	Nominal if not Adjectival	Verb, Noun
Age	Adjectival	Noun, Verb
Value	Adjectival	Verb
Speed	Adverbial if Physical Property is Verbal, if not Adjectival	Adverb, Verb

Table 6: Grammatical categories of Adjectival meanings in Coast Tsimshian

Human propensity Nouns are frequently formed using the 'particle' huk-. There has been some disagreement about the status of this prefix. According to Boas' analysis the particle is taken to be an example of derivational morphology which converts a Verb into a Noun denoting 'one who V's'. According to Dunn (1979:46) the particle is taken as special sort of pluralizer, denoting the habitual aspect 'to habitually V'. This confusion reflects the position of Adjectives as intermediate between Nouns and Verbs. It will be necessary to examine some examples of this form in naturally occuring texts to make a final decision. At this stage I have nominated to consider this particle as a V -> N derivational prefix on the basis of data from Boas (1912). As far as the discussion here is concerned we may consider human propensity Nouns to typically be Verbs. Where a highly time stable sense is intended then in some cases it is possible that these meanings may be expressed as Nouns.

#### 3.2 Noun Phrase internal modification

## 3.2.1 Overview of noun phrases

Noun phrases in Coast Tsimshian consist minimally of a Noun. In most cases the Noun requires a connective. Connectives are described in detail in Mulder (1994:30-48). At this stage it is useful to note that although connectives reflect the grammatical role, deictic status, and, animacy of the Noun, they are phonologically tied to the word preceding the noun phrase. That is to say connectives are phonological enclitics which come at the beginning of the noun phrase.

In basic noun phrases, Nouns can be preceded by quantifiers. There is also a small set of Adjectival proclitics which attach to the head of the noun phrase which modify Nouns (these are discussed in more detail in section 3.2.3)<sup>4</sup> Nouns may also be followed by demonstratives. Thus, the basic structure of a noun phrase is:

...]-CNPRED QUANT ADJ(-) NOUN DEM

This is exemplified in the following examples:

<sup>&</sup>lt;sup>4</sup> There is presently no consensus about the orthographic conventions for writing these 'Adjectives'. In the past they were prefixed onto the Noun, however many writers these days prefer to represent these clitics as separate words. In any case, their position in the clause is uncontroversial.

2	7	$\mathbf{n}$
۷	1	9

yetsisk...

yetsisk land.animals

(Mulder 1994:194.1)

(3)	a	ta	w <u>a</u> n <b>sga</b>	txa'nu
	a	ła	w <u>a</u> n- <b>sga</b>	txa'nii
	and	PAST	be.PL-CNPRED	all
	"And all the land	d animals were		
(4)	t'aas <b>ca</b>	Swii(-)	mediik	
(+)	t aaa <b>ga</b>	<b>π</b> μ(-),	LIL W WILLIAM	

(4) ... taasga wii(-)iiicu

... t'aa-sga 'wii(-)mediik

... be.SG-CNPRED great(-)grizzly.bear

- "... great grizzly bear was ...
- (5) ... <u>ga</u>naw gwa'a

... <u>ga</u>naw gwa'a

... frog this.by.me

"... this frog"

# 3.2.2 Compound Noun Phrases and the connective -m

Many Adjectival meanings are expressed as Nouns in Coast Tsimshian. Partly for this reason compound Nouns are relatively common in Coast Tsimshian. In order to modify a Noun to give information about a referent, the modifying Noun is simply added to the noun phrase to form a compound. This modifier Noun occurs immediately before the head Noun in the phrase. Where two Nouns are present in a noun phrase, the head takes the connective -*m*. Like all other connectives this precedes the head and is an enclitic. A compound noun phrase has the following form:

...]-CNPRED QUANT ADJ(-) NOUN-CNNMOD(m) HEAD.NOUN DEM

This is demonstrated in the following two examples. Note that any Noun may occur as a modifier and it is possible to have more than one modifier of this kind.

(6)	t'apxaduul	am'aamn	gatgyetm	yik'yuuta
	t'apxaduul	am'aam-n <sup>5</sup>	gatgyet-m	yik-'yuuta
	two.(humans)	good-CNNMOD	strong-CNNMOD	REDUP-man
	'two good strop	ng men'		(Dunn 1979:57)

The following two examples show that Nouns can occur in either position.

(7) luungm sami
 luung-m sami
 dried.CNNMOD meat
 'dried meat'

(see Boas 1911:76.16)

<sup>5</sup> Note that this -n is actually an allomorph of -m; used only if the preceding sound happens to be an /m/.

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 (8) samim mati sami-m mati meat-CNNMOD mountain.goats
 'mountain goat meat'

(see Boas 1911:94.13)

I suspect that for a few Nouns there are restrictions on their ability to head the noun phrase in these conditions. I would like to check the grammaticallity of constructions such as *hana'ax wiileeks* 'female strong ones'. I suspect that it will prove to be the case that Adjectival Nouns are not able to be modified by more prototypical Nouns. This is because while it is possible to refer using weak Nouns, they carry what Dixon called noncriterial information about the Noun. Hopper and Thompson find that prototypical nounhood depends on "the degree to which the form in question serves to introduce a participant into the discourse (1984:708)."

To the extent that a linguistic form is carrying out this prototypical function, it will be coded as N, and will manifest the full possible range of nominal trappings conventional in the language. Forms which fail in some way to refer to concrete, deployable entities will typically lack some or all of these trappings (1984:710-711)

It is likely that criterial rather than non-criterial information will occur as the head of the noun phrase. Provided a semantically appropriate adjective is used, the following sentence frame can test if a Noun can be used in second position (as the head):

(9) luungm \_\_\_\_\_ gwa'a luung-CNNMOD \_\_\_\_\_ gwa'a 'This is a good \_\_\_\_\_.'

The Nouns which can not be used in this position from a subclass which refer to qualities expressed by the class of Adjectives in English.

The following table lists Nouns of Coast Tsimshian which carry Adjectival meanings, and are candidates for testing as heads in compound noun phrases. They occur across many of Dixon's semantic types.

SEMANTIC TYPE	DIXON'S PART OF SPEECH:	COAST TSIMSHIAN NOUNS		
Dimension Adjectival		n <u>ak</u> '(be) long';		
Physical property	Verbal if not Adjectival	lok 'rotten'		
Colour	Adjectival	* blagmloop 'mossygreen'; mask 'red'		
Human propensity	Nominal if not Adjectival	*gwe'a '(be) poor'; alasg 'weak'		
Age	Adjectival	sup'as '(be) young'		
Value	Adjectival	amap'as 'beautiful		
Speed	Adverbial if Physical Property is Verbal, if not Adjectival			

Table 7: Adjectival meanings as Nouns in Coast Tsimshian (Coast Tsimshian words cited from Mulder 1994 and Dunn 1978)

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With the exception of the category of Speed, for which I have no examples, all sematic types of Adjectival meanings have been shown to occur as Nouns. These words cannot be accommodated by Dixon's account. Where more than one category has been noted, these are listed in order of frequency. Of the Nouns listed here, several were also listed above, is the section describing Verbal expressions of adjectival meanings. These are marked with an asterix (\*).

### 3.2.3 Adjectival prefixes

Although a great many Adjectival meanings fall into the classes of Noun and Verb in Coast Tsimshian there are a small category of nominal modifiers which appear to form a closed class of phonologically dependent Adjectives. These forms may be distinguished from Verbal type Adjectives on the basis of their inability to take dependant personal Pronouns. Like nominal type Adjectives these forms precede the head of the noun phrase but they are distinguished by their inability to take the suffix *-m* which other nominal type Adjectives take. The following example shows that Adjectives are prefixed directly onto the noun:

(10) <sup>1</sup>guxa

+gu-xa little-slave 'little slave'

When these forms modify a compound NP they typically occur at the start of the whole compound.

(11) 'wii'nagm ganga 'wii-'nag-m gan-ga great-long-CNNMON tree-DEM 'very tall tree'

These forms seem to be proclitics which are phonologically dependant on the Nouns. They are orthographically represented as either independent words or as affixes. Dunn (1979:51) has noted that most of these forms are clearly related to Nouns/Verbs with similar forms<sup>6</sup>. This class has not previously been divided from derivational prefixes which can occur in the same position. For this reason the class may have other members in addition to the forms I present here. The semantic type Speed never occurs as an Adjective in the data I have examined from Coast Tsimshian, rather most Speed words are Adverbs. The Adjective class is comprised of at least the following forms (the related Nouns/Verbs are listed on the right):

SEMANTIC TYPE	ADJECTI	ADJECTIVAL PROCLITICS		LIKELY SOURCES	
Dimension	'wii	large	'wiileeks	great	(N)
	1gu	little	†gu†k	little	(N)
Physical property	kse	fresh	?	?	?
Colour	müs	red	mask	red	(N)
Human propensity	ksem	female	?	?	?
Age	su	new	?	?	?
Value	ama	good	aam	good	(V)
	ADVERB	IAL PROCLITICS			
Speed	sa	suddenly, quickly	?	?	?

Table 8: Adjectival meanings in the Adjective class in Coast Tsimshian (Coast Tsimshian words from Dunn 1978 & 1979, and Boas 1911)

On the basis of this data, I conclude that these forms make up a small closed class of Adjectives in Coast Tsimshian. The precise membership of this group remains to be ascertained. One interesting factor to be considered is that Dixon noted that closed classes of Adjectives typically contain several sets of binary pairs. The Bantu language Venda has pairs such as *-hulu* 'big', *-tuku* 'short' and *-rema* 'black', *-tshena* 'white'. So far this does not seem to be the case in Coast Tsimshian. Only 'wii- and dgu- form a pair of this type at the moment. Also gyet- (person/man) could possibly be included to correspond with ksem-.

## 4 Summary and conclusion

Dixon's predictions about the likely part of speech of adjectival meanings are repeated below, and compared with the Coast Tsimshian material discussed so far.

SEMANTIC TYPE	DIXON'S PART OF SPEECH:	COAST TSIMSHIAN PART OF SPEECH
Dimension	Adjectival	Verb, Noun, Adjective
Physical property	Verbal if not Adjectival	Verb, Noun, Adjective
Colour	Adjectival	Noun, Verb, Adjective
Human propensity	Nominal if not Adjectival	Verb, Noun, Adjective
Age	Adjectival	Noun, Verb, Adjective
Value	Adjectival	Verb, Noun, Adjective
Speed	Adverbial if Physical Property is Verbal, if not Adjectival	Adverb, Verb

Table 9: Summary of grammatical categories for Adjectival meanings in Coast Tsimshian

In several respects Coast Tsimshian confirms Dixon's predictions. For example the relationship between the category of Physical Property and Speed such that if Physical Property words are Verbs then Speed words will be Adverbs clearly holds in Coast Tsimshian. Furthermore all of the categories Dixon predicts will be present in a small closed class of Adjectives are represented in the Adjective class in Coast Tsimshian. Where he predicts some other category will contain Adjectival meanings of a particular sort, this is also true of Coast Tsimshian. It

<sup>&</sup>lt;sup>6</sup> Some of these 'Adjectives' (eg. 'wii) can also be used with Verbs ('wiihaw 'to cry' which has the base haw 'say, talk'). I haven't figured out if they are derivational in these cases, as this one appears to be. I would probably argue that the forms that do are homophonous - derived from the same source (in this case wiileeks 'great') but still count as different lexemes/morphemes.

<sup>&</sup>lt;sup>7</sup> Like Adjectival proclitics, Adverbial proclitics are not phonologically independent. The Adverbial proclitics are dependent on Verb stems.

is important to note that the success of Dixon's predictions is mainly due to the large number of categories in which Adjectival meanings of all kinds may be found in Coast Tsimshian.

Dixon notes that of all the semantic types of Adjectival meanings these are the most likely to be present in the Adjective class in any language. In the data presented here we have noted that some members of this semantic class are indeed members of the grammatically defined class of Adjectives. However, given the restricted size of the Adjective class in Coast Tsimshian it seems only natural that many words referring to these semantic categories should find their way into other classes. In particular with regard to the categories of Dimension, Colour, Age, and Value some further comments should be made. Dixon (1977:57) found the same was true of Dimension words in both Tzotzil and Sango which generally express these meanings as Verbs. Colour terms were found to be Verbs in Bernba but Nouns in Kiriwinian. Kiriwinian shares with Coast Tsimshian the further characteristics of treating Speed as an Adverbial category (even though it does not treat Physical property words as Verbs), and of treating many Human Propensity words as Verbs.

These facts about Tzotzil, Sango, Bemba and Kiriwinian are treated by Dixon as exceptions to the general predictions he had made. That a single language, Coast Tsimshian should display so many of these exceptions suggests that they are in fact systematic variations within a system rather than an unusually large number of anomalies.

In order to accomodate this data I propose several amendments to Dixon's account. They are based partly on Thompson (1988) and partly on Givon's discussion of time stability (see Givon 1984:55). Givon's timestability scale is represented below. This scale represents the fact that Adjectival meanings are less time stable than nominal meanings but more time stable than Verbs:

Table 10: Time-Stabiliy Scale (Givon 1984:55)

Thompson (1988) questions whether time-stability is relevant to the distinction between Adjectives and Nouns. She argues that although Adjectives are frequently distinguished from Verbs on the basis of morpho-syntactic evidence relating to their stativity (ie. relative time-stability), there is no time-related evidence for distinguishing Adjectives from Nouns. In fact Adjectival Nouns are generally distinguished from other Nouns on the basis of the fact that they do not have inherent genders. As the category of gender bears no relation to time-stability, Thompson concludes that this concept can not provide an account of the appearance of Adjectival meanings in the classes of Nouns and Verbs cross-linguistically.

In my view the fact that Adjectival Nouns do not have gender in some languages is because they are unable to refer in the same manner as prototypical nouns. The reason for this is that, as Dixon (1977:63) notes, Adjectival meanings refer to non-criterial properties of an object. This is also the reason why I do not expect Adjectival Nouns in Coast Tsimshian to be able to head noun phrases.

Clearly it is the distinction between words which can refer in a criterial way (prototypical Nouns) and those which can not (Adjectives) which is most relevant here. However I am reluctant to dismiss Givon's analysis altogether.

Though it is not immediately apparent, I would argue that there is a relationship between reference and timestability to which Adjectival meanings are more sensitive than prototypical Nouns. Consider the following sentence in which the nature of the referent is changed quite radically (from a count noun to a mass noun):

(12) Take an onion, dice it finely and put it/the onion into a pan.

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In this sentence the onion is whole in the first and second mentions but diced in the third. Despite this change the form of the referring expression does not change. *It* is still an onion.

Givon (1984:55) argues that prototypical nouns are more time stable because they stand for a cluster of properties. Even if one property is changed over time the overall referent is likely to remain stable. Adjectival meanings do not have this ability because they refer only to a single property. Consider the following sentence:

(13) Take a large onion, dice it finely and put it/\*the large onion into a pan.

If the single property to which an Adjectival meaning relates is altered, reference with the Adjectival meaning is no longer possible.

On the basis of Dixon's findings and additional data from Coast Tsimshian I note the following:

- 1a. Some languages have only a small closed class of Adjectives.
- b. This class is likely to include at least some members of the semantic categories of Age, Dimension, Value and Colour.
- c. Languages of this type generally encode most Adjectiveal meanings in the classes of Verbs and Nouns.
- 2a. Adjectival meanings straddle the border between Nouns and Verbs with regards to their time stability and discourse functions. As a consequence, they can be used both to refer and to predicate. For this reason there is a good deal of variation both cross-linguistically and language internally regarding the grammatical class to which Adjectival meanings belong.
- b. Where Adjectival meanings are expressed as Nouns they are being used to refer to entities in the discourse. Where they are expressed as Verbs they are used to make predications about entities.
- c. Whether a particular concept is treated as Verbal or Nominal may be dictated by the lexicon, or it may be possible for the speaker to choose how they wish to characterize / use the Adjectival meaning.
- d. To a certain extent this depends on the nature of the Adjectival meaning. For example, it is far easier to lose the characteristic of *being flushed* than the characteristic of *being wealthy* (though this is quite straightforward) and hardest of all to lose the characteristic of *being left-handed*. In other words, *being flushed* is less time stable than *being wealthy* and *wealth* is a less time stable property of people than *left-handedness*. Note that *being flushed*, *having wealth* and *being left-handed* are all Human Propensity

Adjectival meanings and Givon's time stability scale. The fact that Colour terms are Verbs in Bemba but Nouns in Kiriwinian and Coast Tsimshian also bears witness to this fact.

 Speed is the least time stable class of Adjectival meanings (this is because referent must be moving for it to be assessed for its speed). Speed words are the only category which is likely to occur in the class of Adverbs.

Overall the data from Coast Tsimshian suggests that there is a correlation between discourse functions, time stability and grammatical categories which operates cross-linguistically, rather than suggesting that there is a relationship between particular categories of Adjectival meanings and grammatical categories.

### **Bibliography:**

Boas, F. (1911) Tsimshian. In Handbook of American Languages. Edited by Franz Boas. Washington DC.: Government Printing Office. Facsimile Reproduction, 1981. Seattle: Shorey Book Store. 283-422.

Boas, F. (1912) Tsimshian Texts, new series. Publications of the American Ethnological Society. 3.67-284. Leiden: E.J. Brill.

Bybee, J.L. (1985) Morphology: a study of the relation between meaning and form. Amsterdam: John Benjamins

Dixon, R.M.W. (1977) Where have all the Adjectives gone?. In Studies in Language 1 19-80.

Dunn, J.A. (1978) A Practical Dictionary of the Coast Tsimshian language. Ottawa: National Museums of Man.

Dunn, J.A. (1979) *Reference grammar for the Coast Tsimshian language*. Ottawa: National Museums of Man. Givon, T. (1984) Syntax: a functional-typological introduction. Volume 1. Amsterdam: John Benjamins.

Hopper, P.J. & Thompson, S.A. 'The discourse basis for lexical categories in Universal Grammar.' in Language 64.4 703-752.

Mulder, J. (1994) Ergativity in Coast Tsimshian. University of California Press.

Pullum, G.K. (1982) Syncategorematicity and English infinitival TO. Glossa 16.181-215.

Schachter, P (1985) Parts of speech systems. In Shopen (Ed) Language typology and syntactic description. Cambridge: Cambridge University Press. 3 vols. 3-61.

Thompson, S.A. (1988) 'A discourse approach to the cross-linguistic category 'Adjective'.' In Hawkins (ed) Explaining language universals. 167-185.

Zwicky, A.M. & Pullum, G.K. (1983) Cliticization and inflection: English *n't*. In *Language* 59(3) 502-513. Zwicky, A.M. (1985) Clitics and Particles. In Language 61(2) 283-305.