

WASCO-WISHRAM NOUN PLURALIZATION

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Criticisms and comments welcomed.

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Preface

0. Almost all of this paper consists of the (entire) text of a 1982 BA thesis completed at Reed College by the first author, Nancy Fowler. (In the thesis, the pronoun "I" thus refers to her; the second author of this working paper is referred to by name or in the third person.) As a joint effort, with the preface added, the title differs slightly from that of the thesis ("Wasco-Wishram Noun Plurals").

Because the time of completion of the thesis corresponded closely to the due date for papers for this conference, we regret that it was necessary for ours to be a "late paper"

and for us to distribute the preface and the text of the thesis informally.*

This preface is intended to provide a summary, or overview, of some of the data, to add a few supplementary ideas, and to provide added information on the context for Fowler's thesis and this joint offering.

Except for scattered examples drawn from Sapir's Wishram Texts (1909), the data in this paper have never been published. Fowler did not undertake original field research, but she did use all of the locally available unpublished files and manuscripts. French is one of those who has done Chinookan field work, and he re-elicited or elicited at least half of the nouns.** He was the faculty advisor for the thesis and also shared in the writing of the preface. He appreciates Fowler's willingness to list him as co-author.

* Those who have only the preface but would like a copy of the thesis section as well, can obtain one by writing to David French (address on cover page). To cover part of the expenses of duplicating and mailing, a check for \$2.50, made out to Reed College, would be appreciated but is not mandatory. In due course, the thesis will be available on an interlibrary loan basis.

** Most of the examples cited by Fowler are the first reliable forms, especially singular/plural pairs, that had been recorded. This means that Walter Dyk's excellent files are the source of most examples. See footnote 5 for a listing of the others, such as Dell Hymes and Kathrine French, whose data were used.

Table I is intended to provide examples of many of the types of plural nouns. Included are those with the productive prefixes *it-* 'plural' and *il-* 'collective neuter' and the productive suffixes *-max* 'distributive' and *-(Vowel)kš* "animate plural." There are also a few which are relatively rarer. Some of the latter are, indeed, frequently used in speech; their "rarity" refers to the fact that there are not as many nouns assignable to such types of pluralization. Following Table I is a listing of other types of pluralization--ones which could not be included in the table. Many of these, too, are "rare" in the sense used above.

Table I. Selected Wasco-Wishram Plurals

SUFFIXES	PREFIXES					
	(w)i- "masc. singular"	(w)a- "fem. singular"	iš-~is- "dual"	il- "collective- neuter"	it-~id- plural	(prefix unchanged)
Ø o suffix)		<u>wa</u> -mwa 'worms' (31)	<u>iš</u> -gakwal (dual or pl.) 'lampreys,' "eels" (36)	<u>il</u> -ladas 'dishes' (19)	<u>it</u> -gulul 'acorns' (10)	
-max istri- butive)	i-k'wali- <u>max</u> 'whales' (53)	a-pkwa- <u>max</u> 'female wildcats' (61)	(iš-~is- forms were not studied thoroughly)	<u>il</u> -k'wayat-k- <u>max</u> 'pools of water' (cf. (41))	<u>it</u> -kšn- <u>max</u> 'hands' (47)	it-q ^w li- <u>max</u> 'houses' (15)
-nana (human)				<u>il</u> -k-lag-nana 'my fa's sisters' (81)	<u>id</u> -ia-guqš-nana 'his wife's rels.' (77)	
-naya (human)				<u>il</u> -k-šikš-naya 'my friends' (86)		
-nayu (human)				<u>il</u> -k-siks-nayu 'my friends' (87)		
-(V)kš animate")	i-pkwa-yukš 'male wildcats' (109)	a-kalu-kš 'a few unknown men' (101)	is-č'upkal-kš 'suckers' (115)	<u>il</u> -ga-utxi-kš 'her y. sisters' (97)	<u>it</u> -kalu-kš 'men' (89)	
(suffix unchanged)	<u>i</u> -k'wia-k'wia-max 'finger rings' (35)					

Notes: Underlined affixes (above) function as pluralizers.

The parenthetic numbers following the translations refer to examples listed in Ch. II, q.v. for singular forms and for discussions.

Suffixes and initial prefixes are not the only grammatical features relevant to noun pluralization. Others are listed below; in the examples, the significant pluralizing element--if any--is underlined. Nevertheless, the reader will need to consult the designated sections of Chapter II in order to understand the complexities involved in some of these listings.

1. Possessive prefixes (section 2.5.1) i-da-gi-k^wčan
'mail, paper carriers' (202)
2. Distributive verbal suffix (2.5.2) i-da-wi-wa-lal
'dancers' (208)
3. Verbal "postpositions" (2.5.3) a-awi-k'i-čxm-al
'pots' (216)
4. Root or stem change (2.6) id-nəmškš 'women' (220)
5. Reduplication (particles) (2.9) wixat laq'-laq'
'bends in the road' (260)
6. Nouns lacking singular/plural distinctions (2.7)
il-la 'fog' (245)

There are additional aspects of pluralization not covered here. For example, double quotation marks were placed around "animate" in the heading for the -(V)kš suffix group in Table I. This is because, like Cree and some other Algonquian languages, such suffixes appear on nouns that seem to lack animate qualities (see sections 2.4.3.5 and .6).

The readers of the thesis may be puzzled by aspects of the treatment of noun prefixes in section 2.1, pp. 6-7. For example, it might be asked why the initial A/NG (appositive/number-gender) prefixes, following Silverstein, are sometimes

numbered with a subscript "3" and why possessive prefixes are numbered "4." A few comments may be helpful. If the thesis is revised for publication, it could be desirable to include an explanation that such noun prefixes are highly similar to certain verb prefixes and are surely historically derived from the latter. The numbering system is based on the (ergative) verb series, wherein subscript number "1" refers to tenses and "2" to transitive subjects (both lacking in nouns); the A/NG noun prefixes₃ correspond to the subjects₃ of intransitive verbs₃ (and to transitive verb objects₃). Noun-verb concord is present. In the thesis, the intention was to differentiate A/NG prefixes₃ from possessive ones₄ in a manner consistent with certain recent writings on Chinookan. Incidentally, the designation "appositive/number-gender" (A/NG) might be improved, but no substitute has been found.

It was a surprise to both authors (cf. p. 3) that there is so little general writing on noun plurals (or number) in the literature. One hope in offering this paper for the Salish Conference is that it will then, or subsequently, elicit useful references.

Fowler was uncertain as to how many comparative statements to attempt; she regards her thesis comments on European languages as being only suggestive. We are aware that examination of languages from other areas could yield many types of noun pluralization, even though any one group might manifest only

one or a few of these. In the Pacific Northwest, Sahaptin has a simple system; Kalapuyan doesn't appear to have true plurals but does sometimes have distributive and collective forms (Yvonne Hajda, personal communication). By contrast, some or all of the Salish languages have a number of types of noun pluralization (Dale Kinkade, personal communication). We have not yet been able to investigate even local languages adequately.

Acknowledgments

Footnote 1 contains acknowledgments, but additional help has been received from Kathrine French, Yvonne Hajda, and Dell Hymes; Dale Kinkade had an opportunity only to scan the thesis, and a comment of his is paraphrased above. Useful suggestions were earlier made by members of the senior (BA) orals committee, before which the thesis was defended: Lena Lencek, John Pock, and Claude Vaucher.

Special acknowledgment is here made to Alice Florendo, Hiram Smith and the other Wascos and Wishrams who supplied data during the Frenches' field research. More than 30 Chinookans who are now deceased also provided linguistic data, and their helpfulness was most appreciated.

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Abstract

This thesis describes the grammar of noun pluralization in Wasco-Wishram or Wasco and Wishram, two nearly identical dialects of Upper Chinook in the Pacific Northwest. Data are primarily drawn from unpublished lexical files. Noun plurals are found to involve a wide variety of morphological processes. It is argued that some of these processes are motivated by such semantic distinctions as distribution, collectivity, and animacy. Correlations between noun classes and pluralization types are also suggested.

Chapter I

Introduction¹

1.1. Introduction to the Problem

The purpose of this thesis is to provide an adequate description of nominal pluralization in Wasco and Wishram, two almost identical dialects of the Chinookan languages.

Two basic tasks are relevant to the investigation of noun plurals. First, all the regular grammatical processes by which nouns may be pluralized must be identified. This task involves looking for contrasts among forms and meanings. Where a difference involving plurality is observed for nouns based on the same stem, one seeks to isolate the grammatical element, or elements, responsible for this contrast. The many ways in which Wasco-Wishram nouns may be pluralized are inventoried in Chapter II of this thesis.

A second aspect of the complete description of noun pluralization, the investigation of semantic distinctions which intersect with the category of plurality, is integrally linked to the first. In addition to functioning as pluralizers, many of the grammatical elements discussed in this thesis are involved in semantic oppositions which go beyond the simple indication of plurality.

One of the most fruitful approaches to the study of grammatical meaning has been developed by Roman Jakobson (Jakobson 1971; cf. Jakobson 1941). Inspired by structural treatments of phonology,

Jakobson has argued that the concepts of marked and unmarked semantic features can be employed to elucidate the meaning of grammatical categories. The marked member of a semantic opposition is seen as communicating a relatively specific piece of information about the presence of a quality or feature. The unmarked member expresses either the absence of the quality in question, or more generally, says nothing about its presence or absence, depending on the level or context of the contrast.

The utility of the concept of markedness, when adapted to the study of grammatical meaning, is that it allows one to posit levels of contrast at which various semantic distinctions are realized, rather than looking for invariant correlations between form and meaning. In this thesis, it will be seen that certain affixes involved in pluralization do not have fixed semantic values, but that these values sometimes depend on the context of their usage.

The study of grammatical categories has often led to statements about the cultural implications of different world views, which can supposedly be inferred from pervasive patterns of linguistic structure. Such questions will not be emphasized in this thesis. However, a description of the variety of ways to pluralize Wasco-Wishram nouns will make clear that the distinctions made in the process of pluralization, and conversely, those which are not obligatorily made, certainly differ from English. The amount of information conveyed about a given noun ranges from what we as speakers of English might consider to be insuf-

ficient, to what would seem to us to be a profusion of details. In Chapter III, I will argue that the degree of elaboration of information about a noun, expressed in the process of pluralization, can be roughly correlated to semantic domains.

The general literature in linguistics concerning the pluralization of nouns is strikingly sparse. Of course, linguists have studied nominal pluralization in individual languages. However, to my knowledge, no attempt has been made to synthesize these efforts for comparative or typological purposes. There is thus no well-defined theoretical framework to which the findings of this thesis can be related. A statement by Dell Hymes, although very general in scope, could apply to the literature pertaining to plurality:

. . . although the discovery procedures that are prerequisite to a solid descriptive foundation are well worked out for phonology and morphological form, this is not the case for grammatical categories Precise definitions of subtypes, and the specification of operations for determining the presence or absence of a category, and its nature, are little available.
(Hymes 1961:30)

1.2 Linguistic Classification and Ethnographic Background²

Aboriginally, Wasco and Wishram were the most easterly dialects of the Chinookan languages. These languages were spoken in an area including the edge of Shoalwater (Willapa) Bay, the north and south sides of the Columbia River, from its mouth to approximately 200 miles to the east, and in the extreme northern part of the Willamette Valley. The Chinookan family has usually been divided into two languages, Lower Chinook and

Upper Chinook³. Lower Chinook dialects were "Chinook proper" (or Shoalwater Chinook) and Clatsop. Upper Chinook is comprised of Kathlamet (shading into its near neighbors), and a group of mutually intelligible dialects collectively known as Kiksht (or Kikšht). Kiksht dialects can be labeled as Clackamas, Cascades, Wasco, and Wishram. (Clackamas, and possibly Cascades, are extinct.) Because Wasco and Wishram are almost indistinguishable in terms of phonology, grammar, and lexicon, they can--for the most part--be treated as a single linguistic unit, Wasco-Wishram.

Village sites inhabited by Wascos and Wishrams were once located near the present site of The Dalles, Oregon. The social organizations, cultures, and economies of the two groups were highly similar. However, Wishrams tended to inhabit and frequent the north (now Washington) side of the Columbia, while Wascos were associated with the south side of the river. The distinction between the two groups was maintained, or perhaps heightened, when most Wishrams later moved to Washington's Yakima reservation, while Wascos were generally relocated to the Warm Springs Reservation in Oregon.

1.3. Methods and Materials

The most complete description of the grammar of Wishram, and by implication, Wasco, was provided by Walter Dyk in his Grammar of Wishram (Dyk 1933). However, Dyk's description of nominal pluralization does not include all of the many types of noun plurals, nor is Dyk's treatment of their semantic correlates adequate.

To improve on Dyk's treatment of plurality, I have made use of a large corpus of data. Lexical files for Wasco-Wishram are the source of most of my examples. Included in these files, in varying quantities, are the notes of Walter Dyk (n.d.), David and Kathrine French (n.d.), Dell Hymes (n.d.), Philip Kahclamat (n.d.), and Edward Sapir (n.d.). Michael Silverstein's lexical files were not available, but many of his verb entries for the unpublished Wasco and Wishram dictionary were in the Frenches' personal library and were occasionally used to aid in the analysis of nouns (Hymes, Silverstein, and French, n.d.). (Edward Curtis' vocabularies (1911) do not include noun plurals.) Finally, Edward Sapir's Wishram Texts were searched for relevant nouns, with special attention being paid to variations in noun forms and the contexts in which they occur. These are the primary sources from which my data were drawn; other sources which were infrequently used appear in the bibliography.⁴

A limitation of this thesis is that I have only selectively exhausted and presented the data. Although I have attempted to inspect every noun available to me, it is impractical to include all such forms in this study. Instead, I have tried to provide ample exemplification of all regular patterns of plural formation. When nouns are pluralized in a grammatically unusual fashion, or do not conform to the usual semantic patterns of nominal pluralization, I have included all available attested examples.

Chapter II

Noun Plurals

2.1. Structure of the Wasco-Wishram Noun

Each Wasco-Wishram noun is based on a stem. To the stem an obligatory initial prefix is added. This initial prefix conveys the person, number and--in the third person singular only--the gender (masculine, feminine, or "neuter") of the noun. However, the various forms of person, number, and gender of nouns distinguish two kinds of initial prefixes. For most nouns the initial prefix is a number-gender or classifying prefix. Number-gender prefixes are always in the third person; the gender of the noun is fixed; and the prefix may be changed only to indicate number (singular, dual, plural, or indefinite).

Appositive prefixes, on the other hand, occur with nouns whose gender and person are not fixed and can be productively indicated by the appositive prefix. Thus, an appositive prefix can have any one of the three genders in the third person singular. Unlike number-gender prefixes, appositive prefixes can also appear in the first and second persons. The number of an appositive prefix can be any of the forms common to number-gender prefixes, but also, for first person forms, dual inclusive, dual exclusive, plural inclusive or plural exclusive.

The distinction between number-gender and appositive prefixes will not be maintained in this thesis. All initial nominal prefixes will be called appositive/number-gender prefixes, here-

after abbreviated as A/NG.

A second element, the possessive prefix, may precede the noun stem. This prefix expresses the number, person, and in the third person singular only, the sex of the possessor of the noun stem. With some noun stems, such as those denoting certain body parts, a possessive prefix is obligatory.

The noun stem follows these prefixes. Suffixes may be added to the stem. Relevant to this thesis are those suffixes which function to pluralize nouns (see section 2.4).

Michael Silverstein (Hymes, et al. n.d.; also, personal communication to David French) has developed a numbering scheme for identifying and specifying the order of verbal and nominal elements. Occasionally, I will use his convention of labeling the A/NG prefix of a noun with a subscript 3, and the possessive prefix with a subscript 4, in order to cross-reference these Wasco-Wishram morphemes to their English translations.

2.2. Pluralization of Nouns

Dyk (1933:93) states that there are 15 different patterns of Wishram nominal pluralization, given all possible combinations of A/NG prefixes and the two pluralizing suffixes which Dyk identifies. In this chapter, I will suggest that there are patterns of pluralization which Dyk neglected to describe.

Dyk further characterizes most Wishram nouns as having "no regular rule by which plurals are formed" (Dyk 1933:93). By this remark, Dyk seems to have meant that, due to the multiplicity of ways to pluralize a noun, one cannot predict how a noun

will be pluralized on the basis of which A/NG prefix it takes in the singular. This observation is true, but fails to consider that other features of the noun can throw light on the form taken by its plural. By paying close attention to the morphological and semantic regularities (and irregularities) associated with each type of noun pluralization, I hope to describe the nature and extent of the variability of noun pluralization more clearly than Dyk has.

2.3. Pluralization by Change of Appositive/Number-Gender Prefixes

Morphologically, the simplest type of noun pluralization is achieved by changing a singular A/NG prefix (i-~wi-, masculine, or a-~wa-, feminine) or an indefinite prefix (il-) to another type of A/NG prefix.⁵

2.3.1. it- (~id-), the third person plural A/NG prefix, is semantically less complex than the other prefixes and suffixes which can mark a noun as plural. This is because it- does not enter into any of the semantic specializations exhibited by other pluralizing morphemes. The following are examples of nouns which may be pluralized by changing an A/NG prefix to it-:

- (1) i-q'inačxwai 'bullhead' (Dyk n.d.)⁶
- (2) it-ga₄-q'inačxwai 'her₄ bullheads' (WD n.d.)
- (3) i-č'ank 'male deer (singular)' (WD n.d.)
- (4) it-č'ank 'deer (plural)' (WD n.d.)
- (5) i-gunat 'Chinook salmon (singular)' (WD n.d.)

(6) it-gunat 'Chinook salmon (plural)' (WD n.d.)

(7) a-unafax 'huckleberry (one species)' (WD n.d.)

(8) id-unafax 'huckleberries' (WD n.d.)

(9) a-gúlul 'acorn' (WD n.d.)

(10) it-gúlul 'acorns' (WD n.d.)

(11) a-lagagwuli 'spider' (WD n.d.)

(12) it-lagagwuli 'spiders' (WD n.d.)
(cf. example (39))

Although it- generally indicates that a noun is plural, some nouns take it- when this, in the usual sense, is not the case. These are often nouns in which true number is conveyed by the possessive prefix (see also section 2.51):

(13) id₃-ia₄-xi-k^wlilal 'he is a talker' 'he has talkings'
(lit. 'they₃ his₄ talkings') (WD n.d.)

Other nouns take it- in both the singular and the plural forms, so that it- does not function as a pluralizer:

(14) it-q^wli 'house' (WD n.d.)

(15) it-q^wli-max 'houses' (WD n.d.)

2.32. A second A/NG prefix, ił-, is semantically much more complex than it-. This is in part due to the number of semantic oppositions in which ił- participates. A brief discussion of some of these oppositions will help to clarify the uses of ił- as a pluralizer.

With certain noun stems for which the distinction of sex is productive, mostly nouns denoting human beings and domesticated or large animals (Hymes 1961), *il-* can be used to indicate indefiniteness as to sex, in contrast to masculine and feminine. For example, *i-q'iuqt* (WD n.d.) means 'old man,' *a-q'iuqt* (WD n.d.) means 'old woman,' but *il-q'iuqt* (WD n.d.) means 'old person,' without specifying sex. It is perhaps this usage of *il-* which led Dyk, and others, to call *il-* the "neuter singular" prefix.

However, Michael Silverstein has suggested that *il-* is more appropriately described as "collective-neuter," (Silverstein 1977:144) because it is commonly involved in indicating number rather than gender. Although the Chinookan languages are usually said to have three number classes, singular, dual, and plural, Silverstein feels that *il-* constitutes a fourth number class:

[*il-*] is the class not of true plurals but of collectives, which as such are 'restricted' to being referred to in lumps or indefinite masses; they are not counted, and therefore the mass plurals and collectives in *il-* are part of this class. (Silverstein 1972:398)

By "mass plurals," I believe that Silverstein is referring to the capacity of *il-* to connote 'some, a few,' instead of the more truly plural connotations of *it-*. Thus, the noun *a-q'iq'wal* 'bead' (WD n.d.) can be pluralized with both *it-* and *il-*. However, *il-q'iq'wal* connote 'some beads,' in contrast to *it-q'iq'wal* 'beads,' (WD n.d.) which is more truly plural. This connotation of *il-* was explicitly recognized by Philip Kahclamat, a speaker of Wishram. While working with Walter Dyk, he gave the form

it-paʔaɫ-max 'caves' (WD n.d.) as the plural of i-paʔaɫ, 'cave' (WD n.d.). Apparently in response to a question by Dyk, Kahclamat reacted to the form iɫ-paʔaɫ by saying "sounds like 3 or 4 caves" (WD n.d.).

With certain noun stems, then, the meaning of the prefix iɫ- can be ambiguous. In the example given above, iɫ-q'iuqt (WD n.d.) was said to connote indefiniteness as to sex, but it can also mean 'some, a few old people.'

The examples which I have presented of the usage of iɫ- have, up to this point, been in keeping with Silverstein's characterization of iɫ- as emphasizing the group or mass quality of a plural noun. However, there are many nouns which take iɫ- as a plural, where iɫ- does not seem to have these semantic specializations, but is rather a true pluralizer. It would seem that iɫ- has the connotations of 'some, a few,' only when it is also possible to pluralize the noun with it-. Examples of nouns for which iɫ- functions as a true plural A/NG prefix are:

(16) a-gik'winɕ 'pin' (WD n.d.)

(17) iɫ-gik'winɕ 'pins' (WD n.d.)

(18) i-ládas 'dish' (WD n.d.)

(19) iɫ-ládas 'dishes' (WD n.d.)

(20) i-kšui 'cedar bark container' (WD n.d.)

(21) iɫ-kšui 'cedar bark containers' (WD n.d.)

(22) a-lašiš 'chair' (WD n.d.)

(23) ił-lašiš 'chairs' (WD n.d.)

(24) i-ladám 'table' (WD n.d.)

(25) ił-ládam 'tables' (WD n.d.)

2.33. Some nouns are pluralized by changing a singular A/NG prefix to a different singular A/NG prefix. This type of pluralization does not appear to have been productive in Wasco-Wishram for some time. Nouns pluralized by singular prefixes are:

(26) i-gakwal "eel" (lamprey) (WD n.d.)

(27) a-gakwal "eels" (lampreys) (WD n.d.).

(28) wi-q^wdixa 'body louse' (WD n.d.)

(29) wa-q^wdixa 'body lice' (WD n.d.)

(30) wi-mwa 'worm,' 'maggot' (WD n.d.)

(31) wa-mwa 'worms,' 'maggots' (WD n.d.)

(32) wi-qšti 'head louse' (WD n.d.)

(33) wa-qšti 'head lice' (WD n.d.)

(34) a-k'wia-k'wia-max 'finger ring' (WD n.d.)

(35) i-k'wia-k'wia-max 'finger rings' (WD n.d.) (see also p. 15)

2.34. For a very few nouns, the dual prefix iš- (~is-) can serve also to pluralize the noun:

(26) i-gakwal "eel" (lamprey) (WD n.d.)

(36) iš-gakwal "eels" (lampreys) (dual or plural) (WD n.d.)
(cf. example (27))

(37) a-k'adaqi 'small game fish (singular)' (WD n.d.)

- (38) iš-k'adaqi 'small game fish (dual or plural)' (WD n.d.)

2.4. Plural Suffixes

In addition to--or instead of--changing a singular or indefinite A/NG prefix to a plural A/NG prefix, many nouns affix plural suffixes. These suffixes can convey more specific information about the noun, as well as the fact that it is plural.

2.4.1. The plural suffix -max emphasizes the distributive or individuated quality of the noun to which it is attached. Semantically, -max, like it-, contrasts with ił- when ił- has the "restricted" plural connotations of 'some, a few.'

2.4.1.1. Most nouns which take -max in the plural also change their A/NG prefixes to it-:

- (11) a-łagag^wuli 'spider' (WD n.d.)

- (39) it-łagag^wuli-max 'spiders' (WD n.d.)
(cf. example (12))

- (40) a-k'wayat 'cache hole' (WD n.d.)

- (41) it-k'wayatk-max 'cache holes' (WD n.d.)

- (42) i-č₄-tuk^w 'my₄ neck' (WD n.d.)

- (43) id-lxa₄-tug-max 'our (inclusive)₄ necks' (WD n.d.)
(cf. example (124))

- (44) a-c'igala 'swallow' (WD n.d.)

- (45) it-c'igala-max 'swallows' (WD n.d.)

- (46) ił-kšin 'hand' (WD n.d.) [probably, the stem is better written -kšin or -kšn]
(47) it-kšin-max 'hands' (WD n.d.)

(48) a-c'éməna 'staging-pole' (Sapir 1909:184)

(49) it-c'éməna-max 'staging-poles' (Sapir 1909:184)

2.412. Other nouns can be pluralized simply by adding -max. Since the A/NG prefixes of these nouns do not change, gender is retained in the plural:

(50) i-t'ux^wačk 'brush (singular),' 'thicket' (WD n.d.)

(51) i-t'ux^wačk-max 'brush (plural),' 'thickets' (WD n.d.)

(52) i-k'wáli 'whale' (WD n.d.)

(53) i-k'wáli-max 'whales' (WD n.d.)

(54) wa-c'ia 'calico [chum] salmon (singular)' (WD n.d.)

(55) wa-c'ia-max 'calico salmon (plural)' (WD n.d.)
 (The plural form of this noun was also recorded as wa-c'ia-mx (DF n.d.), suggesting that -mx is a possible variant of -max. This Wasco speaker (Hiram Smith) also stated that wa-c'úiha 'blue-back salmon' should probably be pluralized in the same manner as 'calico salmon,' i.e., with -mx. However, this form was never actually recorded as the plural of wa-c'úiha (see example (231))

(56) i-kmágapx 'work,' 'job' (WD n.d.)

(57) i-kmagabx-max 'jobs' (WD n.d.)

(58) i-pkwa 'male wildcat'; 'male lynx' (WD n.d.)

(59) i-pkwá-max 'male wildcats'; 'male lynxes' (WD n.d.)
 (cf. example (109))

(60) a-pkwa 'female wildcat'; 'female lynx' (WD n.d.)

(61) a-pkwá-max 'female wildcats'; 'female lynxes' (WD n.d.)

- (62) it-pkwá-max 'wildcats'; 'lynxes' [unmarked for gender] (WD n.d.)

2.413. The presence of -max usually indicates a contrast between the plural form of a noun, and its singular, which does not have -max. However, -max sometimes appears on singular nouns. Frequently, these are nouns in which things or qualities, which are themselves plural and take -max, are possessed (see also section 2.51):

- (63) id-ia-qc'i-xul-max "he jokes with women" (WD n.d.)
 (64) id-ia-gmxmai-max "he is a shouter" (WD n.d.)
 (65) id-ia-balau-max "he is one who talks of seeming wonders" (WD n.d.)
 (66) id-ia-musxi-max "a silly-acting little kid" (WD n.d.)
 (67) il-ia-luk'-max "he is divorced" 'a divorced man' (WD n.d.)

2.414. A few nouns take -max in both the singular and the plural; in some cases no motivation for the presence of this suffix in the singular has been found:

- (34) a-k'wia-k'wia-max 'finger ring' (WD n.d.)
 (35) i-k'wia-k'wia-max 'finger rings' (WD n.d.)
 (68) il-p'uyan-max 'egg or eggs' (WD n.d.)
 (69) it-p'uyan-max 'eggs' (PK n.d.)
 (70) i-giž-max 'yellow lichen frequently found on dead wood' (lit. 'yellow item [which grows] here and there') (DF, KF n.d.)

(71) i-giš-giš-max 'yellow lichen (plural) frequently
found on dead wood' (lit. 'yellow
items [which grow] here and there')
(DF, KF n.d.)

(72) a-k'i[?]-max 'scarf worn about the waist' (WD n.d.)

(73) it-k'i[?]-max 'scarves worn about the waist' (WD n.d.)
(This example is dubious because it is
not certain if /max/ is a suffix or part
of the stem.)

2.415. For many nouns, pluralization with -max and pluralization utilizing other plural suffixes, or the use of plural A/NG prefixes alone, are alternative options of the speaker. A comparison of the examples used in the above section with those cited in sections illustrating other types of pluralization will provide some instances of nouns for which the use of -max is optional. However, it should be noted that these examples are by no means exhaustive, and that they do not adequately reflect the degree to which -max may be affixed or omitted freely. This is not to suggest that this free usage of -max is possible with all nouns. There are many nouns which do not occur with -max in my data, and also those which always take -max in the plural.

2.42. The plural suffix -nana is used almost exclusively with kinship terms. These terms usually refer to persons who are not exceptionally close to ego. -nana may have distributive connotations similar to -max. Some nouns which can be pluralized with -nana can also take -kš (see section 2.43), but -max and -nana are not attested as alternative plurals for any nouns in my data:

(74) a-k₄-gút₄x 'my₄ mother's sister' (WD n.d.)

(75) i₄-ga₄-gút₄x-nana 'her₄ mother's sisters' (WD n.d.)
(cf. example (99))

- (76) i-ya₄-guqšín 'his₄ wife's male relative' (WD n.d.)
- (77) id-ia₄-guqš-nana 'his₄ wife's relatives' (WD n.d.)
- (78) a-ga₄-škíx 'her₄ mother's mother' (WD n.d.)
- (79) ił-nša₄-šgix-nana 'our (exclusive)₄ mother's mothers' (WD n.d.)
- (80) a-k₄-łak 'my₄ father's sister' (WD n.d.)
- (81) ił-k₄-łag-nana 'my₄ father's sisters' (WD n.d.)
- (82) ił-k₄-šikš 'my₄ friend' (WD n.d.)
- (83) ił-k₄-siks-nana 'my₄ friends' (WD n.d.)
- (84) i-č'-max 'great-grandfather' (WD n.d.)
- (85) ił-k₄-č'-max-nana 'my₄ ancestors of my great-grandfather's generation' (WD n.d.)⁸

The suffixes -nayu and -naya are possibly related to -nana. I have found only one example of the usage of each of these suffixes, and they occur with a noun stem which can also take -nana:

- (86) ił-k₄-šikš-naya 'my₄ friends' (WD n.d.)
- (87) ił-k₄-siks-nayu 'my₄ friends' (WD n.d.)

2.43. The plural suffix -kš (˜-ks˜-łkš˜-uks˜-yukš˜-yuks˜-ikš˜-iks˜-yikš˜-yiks˜-akš˜-aks) marks one of the more interesting grammatical categories of Wasco-Wishram, that of animacy. David French (personal communication) has suggested that -ukš, -akš, -ikš, and -kš are not in free variation with each other, but that they tend to be differentially correlated with the gender of a noun in its singular form. -ukš and -kš are seen as unmarked for gender, while -akš is most likely to occur with nouns

of feminine gender, and -ikš with nouns of masculine gender. This would suggest that, diachronically if not synchronically, -u-, -a-, and -i- are morphemes distinct from -kš. Because this idea has not been investigated fully, I will continue to hyphenate these suffixes before the vowel, when one is present, thus representing them as single morphemes.

The variation between final /š/ and /s/ of these suffixes is similarly non-sporadic. This alternation is often an aspect of the complicated system of sound-symbolism found in Wasco-Wishram. Sapir refers to this feature of Wishram as "consonantal ablaut" (Sapir 1911:638), and describes it as:

. . . a series of changes in the manner, and to some extent the place, of articulation of many of the consonants, in order to express diminutive and augmentative ideas in the words affected (Sapir 1911:638; see also Dyk 1933:20-23).

For the purposes of this discussion, it is enough to note that while the final /š/ of animate plural suffixes is generally unmarked with respect to the contrast of diminutive and augmentative, the occurrence of a final /s/ on these suffixes can indicate diminution.

Although -kš specifies that a noun is animate, there is no grammatical marking of nouns as inanimate. Nouns can be described as inanimate only by the negative criterion of never affixing -kš. That -max, and other pluralizing prefixes and suffixes, do not distinguish inanimate nouns is supported by the fact that many nouns which can be pluralized with -kš can be pluralized alternatively by means of prefixes and suffixes occurring with inanimate nouns.

Dyk (1933) does not discuss in any detail the semantic features of nouns which may take animate plurals. The majority of nouns which can affix -kš fall into four semantic categories, to be discussed in the following paragraphs. (It will be noted that nouns taking -kš occur with a wide variety of A/NG prefixes, including ones which are usually associated with singular nouns.)

2.431. Plural nouns denoting human beings frequently take -kš:

(88) i-kala 'man' (WD n.d.)

(89) it-kálu-kš 'men' (WD n.d.)

(90) i-t'uanxa 'Paiute' (Sapir 1909:220)

(91) ił-t'uanxa-yukš 'Paiutes' (Sapir 1909:220)

(92) ił-q'iuqt 'old person' (WD n.d.)

(93) ił-q'iuqt-ikš 'old people' (WD n.d.)

(94) ił-miməlušt 'dead person' (Sapir 1909:78)

(95) id-miməlušt-ikš 'dead people' (Sapir 1909:78)

(96) a-ga₄-útxix 'her₄ younger sister' (WD n.d.)

(97) ił-ga₄-útxi-kš 'her₄ younger sisters' (WD n.d.)

(98) a-k₄-gutx 'my₄ mother's sister' (WD n.d.)

(99) ił-nša₄-gut-kš 'our (exclusive)₄ mother's sisters' (WD n.d.) (cf. example (75))

The A/NG prefixes which are paired with the suffix -kš, as well as -max, are involved in a special semantic distinction

which is restricted to nouns denoting human beings. With plural forms of these nouns, *il-* indicates that the people in question are known to the speaker, and that their number is limited to 'some, a few.' By contrast, *a-* specifies that these people are unknown to the speaker, but has the same restricted connotations of number as *il-*:

(100) *il-kálu-kš* 'a few known men' (Dyk 1933:97)
(cf. example (89))

(101) *a-kálu-kš* 'a few unknown men' (Dyk 1933:96)

(102) *il-nəmškš* 'a few known women' (WD n.d.)
(cf. example (220))

(103) *a-nəmškš* 'a few unknown women' (WD n.d.)

(104) *a-dilxám-ax* 'a few unknown people' (Dyk 1933:96)
(The /m/ of -max has been assimilated to the stem.)

2.432. Many nouns denoting animals take animate plurals:

(105) *i-lal-ic'iau* 'garter snake (various kinds)' (WD n.d.)

(106) *it-lal-ic'iau-ks* 'garter snakes (various kinds)'
(WD n.d.)

(107) *i-knáʔan* 'magpie' (WD n.d.)

(108) *it-knáʔan-ukš* 'magpies' (WD n.d.)

(58) *i-pkwa* 'male wildcat'; 'male lynx' (WD n.d.)

(109) *i-pkwá-yukš* 'male wildcats'; 'male lynxes' (DF n.d.)
(cf. examples (59), (61), (62))

(110) *a-c'igula* 'female bat' (WD n.d.)

(111) it-c'igulaí-yuks 'bats' (WD n.d.)

(112) i-č'ilaq 'grasshopper' (Sapir 1909:162)

(113) it-č'ilaq-ukš 'grasshoppers' (Sapir 1909:162)

(114) a-č'upkal 'sucker' (WD n.d.)

(115) is-č'upkal-kš 'suckers' (WD n.d.)

2.433. Other nouns which can affix -kš include the body parts of human beings:

(116) i-wan 'belly' (WD n.d.)

(117) id-wan-kš 'bellies' (WD n.d.)

(118) a-ya₄-mlq^wtan 'his₄ cheek (human or salmon)' (WD n.d.)

(119) id-mlq^wtan-kš 'cheeks (human or salmon)' (WD n.d.)

(120) i-búkč'an 'forelock' (WD n.d.)

(121) i-búkč'an-kš 'forelocks' (WD n.d.)

(122) i-gikau 'back' (WD n.d.)

(123) id-nša₄-gigaú-kš 'our (exclusive)₄ backs' (WD n.d.)

(42) i-č₄-tuk^w 'my₄ neck' (WD n.d.)

(124) it-tk^w-ikš 'necks' (WD n.d.) (cf. example (43))

2.434. Similarly, animal body parts and products are frequently animate in the plural:

(125) i-q'wínan 'fish fin' (WD n.d.)

(126) it-q'wínan-kš 'fish fins' (WD n.d.) (cf. example (138))

(127) iš-lišt 'fish tail' (WD n.d.)

(128) id-lišt-ka-kš 'fish tails' (WD n.d.)
(The appearance of the element -ka-,
or -k-, in the plural is unexplained.)

(129) i-šm'lq 'seashell' (DF n.d.)

(130) ił-čm'lq-ukš 'large seashells' (PK, DF n.d.)
(cf. examples (139), (141))

(131) i-k'láčin 'salmon-head gristle' (WD n.d.)

(132) it-k'láčin-kš 'salmon-head gristles' (WD n.d.)

(133) a-séq-séq 'buckskin' (WD n.d.)

(134) it-séq-séq-uks 'buckskins' (WD n.d.)

(135) i-p'askwal 'hide,' 'skin' (WD n.d.)

(136) it-p'askwal-ks 'hides,' 'skins' (WD n.d.)

2.435. While most nouns taking animate plural suffixes fall within one of these four semantic categories, there remain many nouns which, according to this scheme, should not occur with -kš, but which in fact do. This puzzling situation is similar to that faced by linguists studying certain Algonquian languages, which also have classes of nouns which are grammatically marked as animate. Regarding Arapaho categories of animate and inanimate, Zdeněk Salzman states: "While in general these native categories correspond to the Western dichotomy of ORGANIC and INORGANIC, there are instances of disagreement . . ." (Salzman 1965:43). Salzman cites as examples of nouns which are unexpectedly classified as animate such things as 'spoon,' 'tepee pole,' 'glove,' 'ball,' and 'wagon or wheel.'

The unexpected classification of some Wasco-Wishram nouns as animate can be explained by semantic features other than the meaning of the noun as a whole. Many nouns and noun stems are used as metaphors to denote inanimate objects. In such cases, the metaphorical usage of an animate noun or noun stem may result in the appearance of -kš on a noun denoting an inanimate object:

(137) i-q'inya-yuks 'hooks and eyes' (lit. 'twins') (WD n.d.)

(138) it-q'winan-uks 'wing chaps' (lit. 'fish fins') (DH n.d.) (cf. example (126))

(139) i-šm'lq-ukš 'Shell gasoline and sign' (lit. 'shells, especially abalone pendants and earrings') (DH n.d.)

(140) it-sak'al-uks 'pants' (lit. 'shins') (PK n.d.)

(141) i₃-ia₄-smlq-uks 'quaking aspen' (lit. 'it has shell earrings' 'they₃ his₄ shell earrings') (DF n.d.)

(142) i₃-ia₄-xalu-kš "salé plant," "stalk that comes up and blooms" (lit. 'it has friends' 'they₃ his₄ friends') (DH, DF n.d.) (i₃- sometimes varies with i₁-.)

(143) it₃-ga₄-qpu-ks 'tops of grass' (lit. 'it has tips of dentalium shells' 'they₃ her₄ tips of dentalium shells') (Sapir 1909:70)

(144) it₃-ga₄-č'ank-š 'basketry design named deer' (lit. 'it has deer (plural)' 'they₃ her₄ deer') (Spier and Sapir 1930:288)⁴ (The /k/ of -kš has been assimilated to the /k/ of -č'ank-.)

(145) i-k'waik'wai 'shooting star or bird-bill' (a blossom of various species of Dodecatheon in which the pistil and stamens protrude like a birdbeak) (lit. 'a kind of bird with a narrow, pointed bill') (PK n.d.) (A Wishram form of this word is given here; Wasco recordings vary.)

(146) it-k'waik'wai-yuks 'shooting stars or bird-bills' (lit. 'certain birds with narrow, pointed bills') (PK n.d.) (see example (145))

Other objects of material culture and plants take animate plural suffixes because their stems include the stems of body part nouns, which often occur with -kš:

(147) i-ya₄-qač-mat 'his₄ cinch' (lit. 'chest instrument') (DH n.d.)

(148) it-qač-mat-kš 'cinches' (lit. 'chest instruments') (DH n.d.)

This noun contains the stem -qač-, meaning 'chest.'

(149) i-gš-mat 'halter' (lit. 'nose instrument') (DF n.d.)

(150) id-gš-mát-kš 'halters' (lit. 'nose instruments') (DH? n.d.)

The stem of this noun, -gš-, means 'nose.'

(151) il-kana-p'ustm-ks 'hair-like plant' (perhaps dodder) (WD n.d.)

Here, metaphorical usage is made of the noun stem -p'ustm-, 'braid.'

(152) a-q'wnam-kš 'powdered rose gall' (WD n.d.)

The stem of this nouns probably means 'swelling on animal or plant,' which, as an animal body part, may take an animate plural suffix.

- (153) $i\dot{1}_3$ - ia_4 -mal-ks 'a squared timber' (lit. 'it has marrows' 'they₃ his₄ marrows')
(PK n.d.)

This noun may take -ks because its stem, -mal- 'marrow;', is considered to be a body part.

Three nouns include the stem -xut- 'eye,' and hence occur with animate plural suffixes:

- (154) a-k'alala-xut 'eyelet,' 'grommet' (WD n.d.)
(155) it-k'alala-xut-akš 'eyelets,' 'grommets' (WD n.d.)
(156) i-gič-xut 'quiver,' 'gun scabbard' (WD n.d.)
(157) it-gič-xut-kš 'quivers,' 'gun scabbards' (Sapir 1909: 170) (Dyk n.d. gives this form as it-gič-xu-kš; the absence of the final /t/ of -xut- is probably an error.)
(158) it-ga-k'alala-xut-akš 'worm-eaten nuts, acorns' (WD n.d.)

A non-metaphoric relation to a normally animate class of nouns may explain the occurrence of -kš with a small set of clothing and materials. Aboriginally, Wasco-Wishram clothing was commonly made from animal hides (French 1961:357). It is my hypothesis that items made of animal hides may take -kš by extension of the principle by which hides, as animal products, can take animate plurals (see examples (134), (136)):

- (159) i-p'usian 'leather strap' (WD n.d.)
(160) it-p'usyan-ks 'leather straps' (WD n.d.)
(161) i-qanyak 'breech-clout'; 'buckskin dress'; 'diapers' (WD n.d.)

(162) it-ga₄-xanyak-ukš 'her₄ or their₄ breech-clouts'
(WD n.d.)

(163) il-q'ilxap 'dress' (WD n.d.)

(164) it-q'ilxap-uks 'dresses' (WD n.d.)

2.436. I turn now to those nouns which end in /kš/ when no semantic motivation can be found for this as a plural suffix. The first group of nouns, (165) through (181), is unusual because the singular form ends in /kš/ as if it had a plural suffix :

(165) i-sgilukš 'wolf' (VD n.d.)

(166) il-sgilukš 'wolves' (WD n.d.)

(167) il-mt'iks 'calf' (VD n.d.)

(168) id-mt'iks-max 'calves' (WD n.d.) (It is not clear
which meaning of English 'calf' is
intended.)

(82) il-k₄-šikš 'my₄ friend' (WD n.d.)

(86) il-k₄-šikš-naya 'my₄ friends' (WD n.d.)

(169) wa-knkš 'tall grass used for mats' (DF n.d.)

(170) il-knkš 'tall grasses used for mats' (KF, DF n.d.)
(The Wasco form of the stem of this noun
may be -kunkš (KF, DF n.d.)

(171) il-nxiamkš 'puberty dance (?)' (WD n.d.)

(172) a-t'ainikš 'white shell bead' (VD n.d.)

(173) il-t'ainikš 'white shell beads' (WD n.d.)

(174) is-t'ilailaks 'breech-clout' (WD n.d.)

(175) a-sk'alyukš 'thimble' (PK n.d.)

(176) ił-sk'ályuks 'thimbles' (PK n.d.)

(177) amčakš 'earring' (DF, DH n.d.) (amčakš functions as both the stem and the singular of this noun; it may be a loan from some other language in the region.)

(178) it-amčakš 'earrings' (DF, DH n.d.)

(179) a-bušikš 'certain life cycle ceremonies with gift giving' (DF, PK n.d.)

(180) i-kalxálukš 'round Chinese coins with square holes, used as ornaments' (WD n.d.)

(181) i-k'unkš 'a dark tree lichen (edible)' (DF, KF n.d.)

There are alternative possible interpretations of the apparent occurrence of -kš with these nouns. -kš may have become a fossilized element of certain noun stems, meaning that this suffix has lost its capacity to distinguish number. In other cases, /kš/ may be part of the noun stem proper.⁹ Since the stems of some of the nouns listed above are not fully analyzable, it is difficult to determine the status of /kš/ within the noun.

Other nouns taking -kš are aberrant because they are not encompassed by the general semantic classes described earlier in this section, nor can secondary semantic factors, which might account for their animate status, be identified. This residual class of animate nouns may include some of those nouns which possibly take -kš in the singular ((165) through (181)). However, there are many other nouns which more clearly take animate plurals without obvious semantic motivation:

(182) a-dx̌-dx 'fir-like tree' (DF n.d.)

- (183) ił-dx-dx-ukš 'fir-like trees' (DF, PK n.d.)
- (184) a-wač 'watch' (WD n.d.)
- (185) id-wač-kš 'watches' (WD n.d.)
- (186) is-c'ik-c'ik 'wagon' (WD n.d.)
- (187) id-c'ik-c'ik-uks 'wagons' (WD n.d.)
- (188) wa-unam 'knoll' (WD n.d.)
- (189) id-unam-kš 'knolls' (WD n.d.)
- (190) a-k₂min 'month,' 'moon' (WD n.d.)
- (191) ił-k₂min-akš 'months' (WD n.d.)
- (192) wa-lap 'tree knot' (WD n.d.), a-gá₄-lap 'her₄ limb' (DF n.d.)
- (193) i(ł)-łp-ukš 'tree knots,' 'tree limbs' (DF n.d.)
- (194) ił-sík'nxat 'twined handbag' (DF n.d.)
- (195) ił-sík'nxat-ks 'twined handbags' (DF n.d.)
- (196) i-c'ulbat 'beaded bag' (DH n.d.)
- (197) it-c'ulbat-ks 'beaded bags' (DH n.d.)
- (198) ił-q-lau-lau-ks 'seeds' (DF n.d.)
- (199) ił-k-lau-lau-kš 'round water-washed stones' (DF n.d.)
- (200) ił₃-ia₄-k'ibwat-ks 'white fir' 'filaree' (lit. 'it has awls' 'they₃ his₄ awls') (DFn.d.)

There are a number of possible interpretations of these aberrantly animate nouns. The stems of some of these nouns are perhaps more fully analyzable. Further analysis might reveal

some metaphorical usage of the stem of a more truly animate noun, which would explain the presence of -kš. Since the stems of many of these unexpectedly animate nouns have been analyzed, and do not appear to involve metaphor, one would still be left with a class of aberrantly animate nouns, but they would be fewer in number.

Concerning this residual class of animate nouns, one might speculate that Wasco-Wishram categories of animacy are somewhat broader than was originally postulated. For example, one could argue that 'watch' takes an animate plural because its hands move, and that things which are capable of movement are potential candidates for categorization as animate.

I am reluctant to propose this sort of interpretation for most of these nouns. Because they do not seem to possess any unifying semantic characteristics, one would be forced to create ad hoc categories of potentially animate things to suit almost every unexpectedly animate noun. A more reasonable, if less satisfying, way to view these nouns is as confirmation of Edward Sapir's statement that "all grammars leak" (Sapir 1921:38).

2.5. So far, we have considered noun plurals formed by suffixes and/or 1/NG prefixes. These are by far the most common patterns of noun pluralization. However, pluralization can involve other morphemes of the noun. Moreover, when a noun stem is derived from a verb stem, verbal morphemes may convey the plurality of a noun.

2.5.1. A relatively common type of Wasco-Wishram noun forma-

tion involves the possession of a quality or thing, denoted by the nominal stem, by the "subject" of the noun. For example, the noun id_3-ia_4-piq 'wing' (Hale 1968) can be analyzed as 'it has feathers' (lit. 'they₃ his₄ feathers'). When a noun follows this pattern, the A/NG prefix conveys the number of the thing or quality which is possessed, rather than the number of the possessor, the true "subject" of the noun. Nouns of this type can be pluralized by changing the possessive prefix from a singular to a plural form:

- (201) $i_3-ia_4-gi-k^w\check{c}an$ 'mail, paper carrier' 'he has carrying' (lit. 'it₃ his₄ carrying') (WD n.d.)
- (202) $i_3-da_4-gi-k^w\check{c}an$ 'mail, paper carriers' 'they have carrying' (lit. 'it₃ their₄ carrying') (WD n.d.)
- (203) $ia_4-ga-lal$ 'airplane' (lit. 'his₄ flying') (DH n.d.)
(The A/NG prefix of this noun appears to be lacking, but the prefix $i-$ has probably been assimilated to the possessive prefix $-ia$.)
- (204) $i_3-da_4-ga-iwa-lal$ 'airplanes' 'they have flying' (lit. 'it₃ their₄ flying') (DH n.d.)
- (205) $id_3-ia_4-xilalit$ 'doctor' 'he has doctoring' (lit. 'they₃ his₄ doctoring(s)') (Sapir 1909:196)
- (206) $t_3-ga_4-xilalit$ 'doctors' 'they have doctoring' (lit. 'they₃ their₄ doctoring(s)') (Sapir 1906:196) ($t-$ is an occasional variant of $it-$.)
- (207) $i_3-ya_4-wi-lal$ 'dancer' 'he has dancing' (lit. 'it₃ his₄ dancing') (DH n.d.)
- (208) $i_3-da_4-wi-wa-lal$ 'dancers' 'they have dancing' (lit. 'it₃ their₄ dancing') (DH n.d.)

- (209) i_3 - $\check{a}a_4$ -k'i- $\check{x}əb$ - $\check{x}əb$ 'she is a putter out of lights, fires' 'she has extinguishing' (lit. 'it₃ her₄ extinguishing') (WD n.d.)
- (210) i_3 - da_4 -k'i- $\check{x}əb$ - $\check{x}əb$ 'they are putters out of lights, fires' 'they have extinguishing' (lit. 'it₃ their₄ extinguishing') (WD n.d.)
- (211) id_3 - ia_4 -lalam-a \check{x} 'singer' 'he has songs' (lit. 'they₃ his₄ songs') (WD n.d.)
- (212) it_3 - ga_4 -lalam-a \check{x} 'singers' 'they have songs' (lit. 'they₃ their₄ songs') (DF n.d.) (The terminal suffix -a \check{x} of these forms is surely -ma \check{x} , where the /m/ has been assimilated to the final /m/ of the stem -lalam-.)
- (213) i_3 - ya_4 -xmagapx 'worker' 'he has work' (lit. 'it₃ his₄ work') (WD n.d.)
- (214) i_3 - da_4 -xmagapx 'workers' 'they have work' (lit. 'it₃ their₄ work') (WD n.d.)

It is undoubtedly significant that most, or all, of the above examples have verb roots or stems; the verbal element functions differently than do those in section 2.52, which follows.

2.52. A few nouns make use of verbal elements to express plurality. In his Grammar of Wishram, Dyk describes the verbal function of one such element, -yu- (\sim iw- \sim iwa-):

The distributive plural element individualizes and separates the plural objects of a transitive construction upon which the action of the verb is bent, or the plural subjects of an intransitive construction by whom the action is being performed. The translation usually given to -yu- is each one, individually, separately, here and there, etc. (Dyk 1933:62)

Thus, -yu-, which appears in the following examples as -wa- and -iwa-, is semantically the near-equivalent for verbs of the

nominal suffix -max.

(207) i₃-ya₄-wi-lal 'dancer' 'he has dancing' (lit. 'it₃
his₄ dancing') (DH n.d.)

(208) i₃-da₄-wi-wa-lal 'dancers' 'they have dancing' (lit.
'it₃ their₄ dancing') (DH n.d.) (-iwa-
appears here as -wa-, the /i/ is assi-
milated to the /i/ of the stem -wi-.)

(203) ia₄-ga-lal 'airplane' (lit. 'his₄ flying') (DH n.d.)

(204) i₃-da₄-ga-iwa-lal 'airplanes' 'they have flying'
(lit. 'it₃ their₄ flying') (DH
n.d.)

2.53. Pluralization by means of the verbal element -l- oc-
curs only once in my data. Dyk calls -l- a "relational element,"
and translates it as "to, in, within, for" (Dyk 1933:39). In
Michael Silverstein's terminology, -l- is a "postposition" (Silver-
stein 1980:39). Dyk further notes that -l- "combines with 3[rd]
p[erson plural] -u- to form -awi" (Dyk 1933:40).

(215) q₃-a-l-k'ičxm-al 'pot' (lit. 'someone₃ is continu-
ously boiling in it₃') (DH n.d.)

(216) q₃-awi-k'i-čxm-al 'pots' (lit. 'someone₃ is continu-
ously boiling in them₃') (DH n.d.)

2.6. A small number of nouns have different stems in the singu-
lar and plural forms:

(217) il-laitix 'slave' (WD n.d.)

(218) il-gíxltki-ukš 'slaves' (WD n.d.) (-iu-kš may be better)

(219) a-gagílak 'woman' (Sapir 1909:52)

(220) id-nəmškš 'women' (WD n.d.) (cf. examples (102), (103))

2.7. The last class of nouns to be considered here consists of those nouns which do not ^{necessarily} change to form plurals. These nouns are sometimes specifically singular in form, i.e., they occur only with A/NG prefix i- or (w)a-:

- (221) a-gák^wal 'eel berries,' 'eel berry' (WD n.d.)
- (222) wa-mxč 'core or cores, as of apples' (WD n.d.) (dis-
tributive pl. wa-m₄č-m₄x, also occurs; cf. 1.4.12.)
- (223) i-kába 'ice' (Sapir 1909:188)
- (224) i-libum 'apple,' 'apples' (Dyk 1933:138, 139)
- (225) wa-qáč 'thorn,' 'thorns' (DH n.d.)
- (226) i-tána-liq^w-liq^w 'icicle,' 'icicles' (WD n.d.)
- (227) i-ləx-ləx 'fish scale,' 'fish scales' (WD n.d.)
- (228) i-yúxpas 'cranberry,' 'cranberries' (WE, DF n.d.)
(Sahaptin-derived?)
- (229) i-ya₄-quq 'his₄ offspring' (WD n.d.)
- (230) a-c'iudixax 'ant,' 'ants' (PK, DF n.d.)
- (231) wa-c'úiha 'blue-back salmon (singular and plural)'
(WD n.d.)

Other nouns which do not have distinct singular and plural forms are invariably plural in form, because they always take it- or a plural suffix:

- (232) it-k^wá'am 'dew' (WD n.d.)

(233) it-k'ilak 'powdered salmon' (WD n.d.)

(234) a-sfuna-yuks "bird²," "birds²" (WD n.d.)

(235) it-k'išglal-max 'feathers worn on hat or head' (WD n.d.)

(236) it-ká 'cloud,' 'clouds' (WD n.d.), it-ká-max 'clouds' (WD n.d.)

(237) it-xálit 'smoke' (Sapir 1909:78)

(238) i²ixaxu-max 'goose,' 'geese' (WD n.d.)

(239) it-t'ú-max 'breast,' 'breasts' (WD n.d.).

A third set of nouns, those taking the "collective-neuter" prefix il-, are marked as neither singular nor plural:

(240) il-qáwulqt 'blood' (Sapir 1909:14), il-gawulkt (WD n.d.)

(241) il-gíninua 'dust' (Sapir 1909:74)

(242) il-káč'a 'oil' (Sapir 1909:64)

(243) il-čk'wían 'pitch' (Sapir 1909:36), il-k^wšk'wían (WD n.d.)

(244) il-šqwa 'water' (Dyk 1933:90)

(245) il-lá 'fog' (WD n.d.)

(246) il-xnán 'smelt' (DF n.d.)

(247) il-únut 'urine' (DH n.d.)

(248) ił-t'ək 'fruit juice' (WD, DF, DH n.d.) 'ink made
of huckleberry juice' (DF, DH, ES n.d.)

(249) ił-úlušq 'soup' (WD n.d.)

(250) ił-płlal 'salal berry' (also, 's. berries' and 's. bush')
(DF n.d.)

Many of these nouns correspond to our English mass nouns, which Whorf has described as designating "homogenous continua without implied boundaries" (Whorf 1956:140). However, it may be the case that the lack of differentiated singular and plural forms may not be due to an implicit categorization of these nouns as mass in character, but is rather a result of a less strongly felt need to express number unambiguously than we as speakers of English feel. I shall return to this point in Chapter 3.

2.8. Having presented all the types of pluralization occurring at the level of the noun itself, I should now point out that Wasco-Wishram has a series of particles and adjectives which, as part of a noun phrase, can be used to elaborate a noun's plural quality. Particles do not typically take prefixes, and generally precede the noun which they modify. Examples of particles relevant to the pluralization of nouns are:

(251) haʔas 'plentiful,' 'more than enough' (Dyk 1933:
131)

(252) paλ 'lots,' 'full' (Dyk 1933:131)

(253) qawat 'a few,' 'some' (Dyk 1933:131)

- (254) palalai 'lots,' 'plenty' (Dyk 1933:131, q.v. for similar forms)

Wasco-Wishram also possesses a system of cardinal and ordinal numbers, which of course can function to specify the degree of plurality of a noun. I will not discuss numerals here; the reader may wish to consult Dyk 1933:136-141. However, one feature of this system pertains to animate plurals. When certain numerals modify nouns denoting human beings, they affix the suffix -ikš. Moreover, when combined with special prefixes, this suffix can convert a number to a substantive, meaning 'a certain number of human beings.'

- (255) a-lakd-ikš a-kalu-kš 'four men' (WD n.d.)

- (256) gún-m-ikš il-t'uánxa-yukš 'five Paiutes' (Sapir 1909:204)

- (257) d-mak^wštłgal-ikš 'twenty of them, people' (Dyk 1933:140)

Adjectives conveying plurality differ from particles in that they are nominals, i.e., they take prefixes. An adjective takes a possessive prefix which corresponds in number, and if specified, gender, to the A/NG prefix of the noun which it modifies:

- (258) a₃-łal₄-tilx il-nímš₃kš 'lots of women' (lit. 'they women it₃ their₄ abundance')
(WD n.d.) (see example (102))

2.9. Reduplication is not a regular pluralization process

for Wasco-Wishram nouns. However, included in my data are examples of particles which can function as noun stems and are pluralized by reduplication. Although particles do not typically take affixes, some of them do so in certain contexts; most of these examples have prefixes and/or suffixes:

(259) wixat laq' 'a bend in the road' (WD n.d.)

(260) wixat laq'-laq' 'bends in the road' (WD n.d.)

(261) yaq'-ix wilxba 'a hollow on the ground' (WD n.d.)

(262) yaq'-yaq'-max-ix 'hollow places,' 'depressions'
(WD n.d.)

(263) i-~~ax~~wap 'hole' (WD n.d.)

(264) ~~ax~~wap-~~ax~~wab-max 'holes' (WD n.d.)

(70) i-giś-max 'yellow lichen frequently found on dead
wood' (lit. 'yellow item [which grows]
here and there') (DF, KF n.d.)

(71) i-giś-giś-max 'yellow lichen (plural) frequently
found on dead wood' (lit. 'yellow
items [which grow] here and there')
(DF, KF n.d.)

Chapter III

Conclusion

3.1. It has been shown that the ways in which nouns can be pluralized are multifarious, and that the grammatical and semantic diversity of these pluralization types is great.¹⁰ In this chapter, I will suggest that the variety of productive pluralization processes, and the types of information which they convey, are not randomly distributed among the nouns. Instead, it seems that these factors can be correlated to certain semantic features of nouns.

3.1.1. Nouns denoting human beings are subject to the most morphologically and semantically varied pluralization processes. In the first place, there are two pluralizing suffixes which seem only to apply to human beings. The plural suffix *-nana* is primarily affixed to nouns referring to kinship relationships (see section 2.42). With numerals, the suffix *-ikš* seems to function mainly to mark the status of a noun referring to a human being (see section 2.8).

The restriction of a semantic distinction to human referents is another index of the relatively greater potential for semantic specificity in this class of nouns. The contrast between *il-* 'a few known people' and *a-* 'a few unknown people' is perhaps the most subtle distinction made in noun pluralization (see section 2.431).

Because nouns denoting human beings may also be plural-

ized by all the combinations of prefixes and suffixes used in other domains, these nouns exhibit the widest possible range of methods of pluralization. With regard to specificity of number, the class of human beings is also somewhat set apart from other nouns. Except for a few true collectives, one does not find nouns in this class which lack distinct singular and plural forms. Similarly, the singular form of a noun is never used when plural human beings are referred to, as will be seen to be the case for other types of nouns. These things suggest that nouns denoting human beings are less tolerant of ambiguity as to number than are other nouns.

3.12. The number of ways to pluralize nouns denoting animals is somewhat more limited than the class of human beings. Of course, *-max* and *-kš* can both occur with animals, as well as human beings. However, there are no grammatical elements or contrasts which specifically indicate that a noun denotes an animal.

When compared with nouns having human referents, animals as a class are only slightly less constrained by obligatory specification of number. We find that there are only a few animals for which singular and plural are not distinguished.

3.13. It is in the domain of plants, material culture, and natural features that the least amount of information is expressed in pluralization. Since nouns of these domains cannot normally take *-kš* and there are no pluralization processes which only occur with these nouns, they are involved in the

smallest set of pluralization processes.

Nouns denoting plants, material culture, and natural features are often characterized by a relative indifference to the communication of number. For many of these nouns singular and plural forms are not differentiated. This also eliminates the possibility of expressing distribution, as well as contrasting it- 'some, a few' with more true plurality.

Another indication that nouns in these domains are more likely to exhibit indifference to number is the fact that they sometimes vary in form between the singular and the plural, although the referents of the noun remain the same. For example, in the myth The Raccoon Story (Sapir 1909:152-165) the narrator switches rather freely between it-gulul and a-gulul, the "plural" and "singular" forms of 'acorn,' even though both are translated as "acorns."

3.14. Thus, information conveyed by the pluralization of nouns, obligatory and otherwise, is potentially greatest for nouns denoting human beings, minimal for plants, natural features and material culture, and intermediate for animals.

3.2. In order to provide a perspective for the description of Wasco-Wishram noun pluralization, I would like to sketch some of the ways in which Wasco-Wishram noun plurals are similar to--and differ from--noun pluralization in European languages. Only those European languages with which I am acquainted, i.e., Latin, French, German, and English, will be mentioned here.

3.21. In terms of the morphological complexity of pluralization processes, German is perhaps closer to Wasco-Wishram than

other European languages. Wasco-Wishram and German nouns are both subject to much more complicated pluralization processes than in either French or English, where noun pluralization is overwhelmingly regular. The many types of Wasco-Wishram noun plurals were discussed in Chapter 2. German noun plurals are formed by changing a singular article to a plural article and affixing one of an array of pluralizing suffixes. Many German noun plurals also involve umlaut. By contrast, the burden of English nominal pluralization falls to the suffix -s and its phonologically conditioned allomorphs. Plurality is also conveyed by some articles. French plurals are similarly straightforward. They are always marked by plural articles, with the suffix -s expressing plurality when liaison occurs.

3.22. With respect to the various kinds of nominal plurality which a language may distinguish, Wasco-Wishram exhibits more diversity than the European languages. Of course, Wasco-Wishram shares with these languages the distinction between mass or collective and individuated nouns (see sections 2.32, and 2.7). However, the European languages do not express distributive plurality, as does Wasco-Wishram (see section 2.41). The most striking contrast between Wasco-Wishram and these European languages lies in the non-obligatoriness of the expression of plurality for certain Wasco-Wishram nouns (see section 3.13). This sort of indifference to number simply does not occur in the European languages.

3.23. Correlations between the form of a noun plural and

other semantic or grammatical features are present in Wasco-Wishram, Latin, and--to a lesser extent--German. Semantic correlates of Wasco-Wishram noun plurals include animacy (see section 2.43), a noun's status as a person, animal, or "thing" (see sections 3.11, 3.12, and 3.13), and possibly gender (see section 2.43). Latin noun declensions convey not only the plurality of the noun, but also its gender and case. In German, the plural articles and suffixes can indicate the case of the noun. Correlations between the gender of a noun and the form of its plural are only indirect for German. For example, nouns ending in /ə/ affix -n in the plural, and many feminine nouns end in /ə/.

3.24. Differences in the treatment of nominal pluralization among various languages have been only briefly discussed here. However, even these differences point to the need for comparative studies of noun plurals. It is hoped that this thesis will provide data for such endeavors.

Notes

¹I am indebted to David French for suggesting the topic of Wasco-Wishram noun plurals to me, and for his helpful advice on all phases of this thesis. I also wish to thank Dell Hymes for his reactions to the written proposal for this thesis, Robert Benson for reading an earlier draft of it, and Kathrine French and Robert Moore for conversations about this thesis and related matters.

²See French (1961) for an ethnographic and historical description of Wasco-Wishram culture. The standard earlier monograph was Spier and Sapir 1930.

³See Silverstein (1974:50-51) for comments on this linguistic classification.

⁴Dell Hymes' Ph.D. dissertation on the grammar of Kathlamet (Hymes 1955), another type of Upper Chinook, was available to me in the form of a near-final draft. I found his discussion of noun plurals helpful in understanding Wasco-Wishram noun affixes. (The pages on which this discussion occurs cannot be cited here because the draft which I used does not include the final page numbers.) Because my data include patterns of pluralization which do not appear in Hymes' Kathlamet grammar, I was unable to adapt his schematic representation of noun plurals without running the risk of misleading the reader. Boas' grammar of Lower Chinook (1911) was also helpful.

⁵Various pluralization processes occur for nouns which do not have singular forms, but instead are "inherently dual" with respect to basic A/NG prefixes. Since these nouns are rather rare and involve problems which are beyond the scope of this thesis, my discussion excludes these plurals.

⁶From this point on, initials will be used to indicate the names of linguists and ethnographers responsible for the collection and transcription of forms which I have obtained from their unpublished notes. Names, and the initials used are:

WD Walter Dyk

DF David French

KF Kathrine French

DH Dell Hymes

PK Philip Kahclamat (A Wishram who was taught by Dyk to write his language)

ES Edward Sapir

I have not listed the initials of all persons who collected each word; many words were obtained by more than one person. Except for Philip Kahclamat's own recordings, the names of Wasco and Wishram speakers who provided these data are not given here. Since Wasco and Wishram forms of nouns are generally identical, I have not indicated from which dialect particular examples have been taken. However, when it appears that there is a significant difference between Wasco and Wishram, I have pointed this out. The WD and PK forms are all Wishram. The transcriptions in this thesis are "near-phonemic," in accordance with recent publications on Chinookan.

⁷i-,id-, -yułmax 'spirit power' (WD n.d.) has been excluded from this category because its stem is almost certainly a borrowing from a neighboring language.

⁸Such nouns are unusual in that they end in -max followed by -nana. David French (personal communication and in entries in Hymes et al. (n.d.)) has a tentative interpretation for these phenomena: -č'-max is the stem, and -nana is an animate plural suffix. In French's view, the stem may be analyzable, with č'-being one (or more) of an array, -max, of 'relatives of the great-grandparent/grandchild generations.' Such forms as -lxd-max would be similar in referring to an 'array of older relatives or ancestors.' Note that -max remains 'distributive' but has a specialized meaning and can occur in a non-final position.

⁹Two other nouns, i-, a-nanukš 'otter' and a-, i-šukš "flint," "flint knife," were omitted from the above list because it was suspected that the stem was borrowed from some other language.

¹⁰It was hoped that a chart or table representing all of the types of Wasco-Wishram noun plurals could be devised for inclusion in this thesis. Unfortunately, due to the great semantic and grammatical complexity of these plurals, it proved impossible to represent them schematically.

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