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Śrīgurave namaḥ.

0. Murray Emeneau's linguistic work has continually evinced a central concern with semantic questions, including the reflection by language of culture and world view, as represented, for example, by his 1949 presidential address to the Linguistic Society of America, "Linguistic and Non-Linguistic Patterns" (Emeneau 1950). Flying in the face of the Bloomfieldian proscription prevalent in those days, this discussed the assumption that "some forms are ordered in classes or subclasses corresponding to systems or subsystems within the environment," illustrating it with examples from chemical terminology, numerals, kinship systems, and status pronouns, but finding the fit to be generally somewhat imperfect. The present paper, while different in topic and less explicitly structured, is offered in a similar spirit.

1. It presents some observations on the processes by which the Makah language has acquired new words and expressions for newly acquired objects and concepts, focusing primarily on the words for items introduced under the impact of Western culture.[1]

1.1. Makah is spoken in the area around Cape Flattery, at the northwestern tip of the Olympic Peninsula in Washington State. It is a member of the Wakashan language family, and thus finds its nearest relatives, Nitinat and Nootka, on Vancouver Island, on the opposite side of the Strait of Juan de Fuca.

1.2. It is commonplace in papers on linguistic acculturation to point out that there are three principal methods by which languages satisfy the need to name new things and concepts: either by borrowing the words from another language (including the possibility of loan-translations), or by shifting the meaning of words already present in the language so that they encompass the new concept, or else by coining new descriptive or metaphorical words or phrases according to patterns of derivation already present in the language.[2] It is a striking fact of the Makah language, and apparently also of other languages of the Northwest Coast area (although relevant reports are rather scanty), that very heavy reliance has been placed on the third approach of coining new words, in preference to the other two.

1.3. The reasons for this are at least partly apparent. Starting in the 18th century, many new artifacts were introduced gradually, as a result of fleeting trading encounters or through the intermediary of other Indian groups, which left the Makah without an authoritative linguistic model to emulate. This situation may be contrasted with, say, that of the languages in the southern two-thirds of California, which are flooded with loanwords from Spanish for acculturational items,[3] or with that of some languages of the

Great Basin, which were swamped by the sudden and continuing impact of English. A language from the coastal California area of the Franciscan missions, such as Salinan, has relied almost exclusively on borrowing from Spanish to label such items.[4]

A second primary reason is doubtless to be found in the rich derivational apparatus of the language, which allows flexibility in the manner of forming new words. This capability, which compares very favorably to that encountered in European languages, also leaves relatively free reign for Makah imaginative and conceptual orientations to express themselves by the choice among the varying semantic approaches to neologisms allowed by the language. Many of the patterns seen in neologisms are already present in terms for native flora and fauna or for implements of the well-developed indigenous technologies for woodworking, sea mammal hunting, and other spheres of activity.

2. Certainly other Indian languages have also relied heavily on new coinages as the preferred linguistic solution to these changing cultural conditions. To mention a few specific cases from the far west:

2.1. A similar distribution of strategies is seen in the Karok language of northwestern California, at the southern fringe of the Northwest Coast culture area, as described by William Bright in his article "Linguistic Innovations in Karok" (1952). Here there are a limited number of loanwords from English, mostly for animals and foods, a few native words with newly added semantic usages, and a large number of new formations of varied semantic approaches, using the grammatical processes of derivational suffixation and, especially, compounding.

2.2. The linguistic response of the Kiliwa language of northwestern Mexico to hispanic culture was thoroughly described by Mauricio J. Mixco in his paper at the Third Annual Meeting of the Berkeley Linguistics Society (1977). This language, unlike other Yuman languages, has largely resisted taking in loanwords from Spanish, apparently for reasons of cultural hostility, although a few camouflaged loans were discerned, as well as a few loanwords pertaining to gambling. Numerous extensions or shifts of the meaning of native terms are reported, along with a larger number of words formed by derivational processes, especially that of relativization.

2.3. In the Washo language of the western Great Basin there are some twenty loanwords from Spanish, probably acquired via other Indian languages, along with a moderately large number of borrowings from English. Shifts of meaning of some native terms also occur. Many derivational neologisms are also found, especially for tools and implements, but they lack the semantic and morphological variety found in these other languages, being primarily deverbative formations obtained by prefixation, and expressing the function of the artifact.[5]

3. Unlike Kiliwa and certain other languages of the American Southwest, Makah seems to have had no cultural resistance to loanwords, but has kept the number of them moderate. A brief indication may be given of their nature.

3.1. These are most of the older loanwords for introduced items that are from Chinook Jargon or otherwise from French. They apply to large animals: bu·sbu·sa 'cow, bull', kibta·la, kiwta·la 'horse', libi·tu· 'sheep' (Fr. le mouton), kʷišu· 'pig' (Fr. cochon), pi·špiš 'cat'; to cloth items: lisa·k 'sack, gunny sack' (Fr. le sac), lišo·la 'shawl' (Fr. le châle), lalu·pa· 'ribbon' (Fr. le ruban); and to varied other artifacts or trade items: lapu·ta·ya 'bottle' (Fr. la bouteille), la·ba 'liquor, whiskey' (Eng. rum), ta·la· 'silver, money, coin' (Eng. dollar), či·kči·ka 'horse-drawn wagon, buggy, riding cart', bu·la· 'machine, motor, engine' (Fr. moulin). Sources of these Chinook Jargon words include other Indian languages, as well as French and English. These are not the earliest loanwords in the language, as a number have been observed which come from other nearby Indian languages, primarily Quileute, the southern neighbor of Makah, and the other Nootkan languages, Nitinat and Nootka, but these are left out of consideration here, as presumably not involving such a sudden or drastic cultural reorientation.[6]

3.2. The following are a selection from the loanwords from English, leaning toward the more widely shared and presumably earlier introductions. These apply to plants including: bi·dis 'beans', ha·psa 'hops', ke·bič 'cabbage', te·dups 'turnip, rutabaga', pa·snips 'parsnip', la·yis, lays 'rice', he·pilis, ʔe·pilis 'apple', ʔo·linčas, ʔo·linčis 'orange', pi·čis 'peach, apricot', kilips, kli·ps 'grapes', li·sidis 'raisins', wa·tabe·leda 'watermelon', pe·pa· 'pepper', si·dis 'seeds'; to food preparations like: pa·yis 'pie', keyk 'cake', ki·kis 'flapjack, pancake, waffle', sa·lapa 'syrup', ke·čap 'ketchup', baš, maš 'mush', la·da 'lard', ʔaysk^{w}i·m 'ice cream'; to beverages such as: ti· 'tea', ko·pi· 'coffee', bi·ya· 'beer', wa·yda, wa·yina 'wine', pa·p 'soda pop', ku·ku· 'cocoa'; to items of apparel including: ku·ta 'coat, overcoat', če·kit 'lady's blouse' (Eng. jacket), šu·wis 'shoes', bu·c 'boots', lipas 'slippers', te·kidis 'stockings, socks'; to other personal effects like: he·kčip, he·kčiba 'handkerchief', ta·wila 'towel', wa·ča 'watch, clock'; to metals and coins: ku·la 'gold', ša·ta 'bullet; lead' (Eng. shot), bi·ta 'dime, 10¢' (Eng. bit), kʷa·ta· 'quarter, 25¢'; to various other artifacts such as: so·sas 'saucer', buka 'book', ba·blis 'marbles', pakit 'bucket', ko·s 'cross', wa·pa 'dock, wharf', bu·ta 'boat', li·lu·ta 'train, railroad'; to broader concepts: ta·wisida 'thousand', ta·wida 'town'; to place names including: bitu·li· 'Victoria', pu·ta·wsida 'Port Townsend'; and to categories of persons: pi·šbe·da 'fisherman', ke·ptida 'captain', bo·sa 'boss', da·kta· 'doctor', bo·stinme·na 'American' (Eng. Boston man), kinčo·čʔatx̣ 'Canadian' (Eng. King George), šu·ča·ʔatx̣ 'soldier' badwa·ʔatx̣ 'sailor' (Eng. man-of-war) (the last three containing the tribal or local group name suffix -'atx̣).

3.3. Recurrent sound substitutions will be observed in these loanwords, such as the use of l for r, of voiced stops b and d for the nasals m and n, and the dropping of initial s before another consonant. The Makah words cited are shown in morphophonemically underlying forms with respect to the ends of the words, but not in

other respects. When pronounced, final short vowels are lost and final long vowels are shortened; thus la·ba 'liquor, whiskey' is pronounced /la·b/, and ta·la· 'silver, money, coin' is pronounced /ta·la/. Also, labialization of final dorsals is lost. When following the vowel u, dorsals (that is, k's, q's, and x's) are always labialized, including when word-final; this is, however, not indicated in the orthography used.

It will be seen that many of the borrowed words have had a short final a added; this is partly on phonological grounds, as words never end in voiced or glottalized consonants in their basic forms; correspondingly, except where vowels are secondarily lost, such consonants cannot be the first members of consonant clusters. As mentioned, such vowels are not pronounced word-finally, but only when a suffix follows. On the other hand, the added -a may have morphological status as the marker of the durative aspect; it will be seen to have been added also in some words after voiceless stops and fricatives. The added -a occurs in similar fashion in related Nootka, where it is actually pronounced; e.g. na·ma /na·ma/ 'whiskey'.[7]

4. We may also illustrate a few typical examples of the second way of labeling new items, that of extending the meaning of words already present in the language for things which served the same or a related function. This is an extremely common device, as doubtless in any language, but the meaning shifts are often rather subtle and easily overlooked. The word for 'match', si?iɬ, si?iɬyakʷ, formerly meant 'fire drill', a meaning not mentioned by any of my informants, but attested from related languages, and also indicated by the literal meaning "(for) stirring on the floor" (si-, m. sičiλ, r. si·λsi·ya 'to stir, strike a match').[8] 'Sandpaper', q̓ʷiqi·ba, was formerly 'dried dogfish skin' used in similar fashion (cf. q̓ʷi·q-, m. q̓ʷi·qšiλ 'to char canoe-bottom to remove splinters'). The word pi·x̣i·yakʷ 'telescope, binoculars', lit. "for looking", and the corresponding verbal expression pi·x̣-, d. pi·x̣a·, r. pi·x̣pi·x̣a 'to look with a telescope' seems to have been extended from pi·x̣-, m. pi·x̣šiλ 'to inspect a canoe for straightness'. Unlike what occurred in many Indian languages, the word for 'bow' (bistati·) was not turned to account to mean 'gun', but busq-, m. busqšiλ 'to have a bow pulled back and ready' came to mean the comparable state 'to have a gun cocked'. The meaning of 'pump' was added to that of x̣učakʷ '(hand-held) bailer' (x̣u-, m. x̣učiλ, r. x̣u·λx̣u·ya 'to bail'). Modern 'chewing gum' has replaced the earlier substance 'spruce pitch' as the referent of ɬakitbis, lit. "chewing material" (ɬakit-, r. ɬa·ɬa·kita 'to chew gum'). The meaning 'to unlock' has been added to the others of the stem λaqɬ-, m. λaqɬišiλ 'to untie, untangle, unwind' with the introduction of locks and keys. The expression for 'to write' is obtained by an extension of the meaning of čat-, m. čatšiλ 'to draw, mark, color'. And, as in so many Indian languages, the word for 'person', λicuxadi·, has taken on the meaning of 'Indian' in contexts where it is opposed to the word for 'white man'.

5. A more restricted potential additional process would be the

making up of onomatopoetic words for new sounds made by objects not previously present. It is often difficult to ascertain whether such words are completely new formations or extensions of words for sounds already available in the environment. The stem ca·sk-, m. ca·skšiλ, r. ca·skca·ska '(bell) to ring' may be a new formation, but pu·tq-, m. pu·tqšiλ, r. pu·tqpu·tqa '(horn, whistle) to blow, (siren) to sound' seems to be an extension of meaning; cf. Nootka pu·tq-, d. pu·tqa· 'to blow a horn, to breathe upon (in doctoring)'. And hu·x̣-, m. hu·x̣šiλ, r. hu·x̣u·x̣a '(people) to whistle, give a high-pitched yell "hu·", (train or boat whistle) to sound' may be an extension of meaning from a sound emitted by humans to keep track of each other when berry-picking, later as a warning to other traffic when riding on a hay-wagon, and then to the sound of a train or boat whistle; cf. Nootka huḥ-, d. huḥa· '(steamer, train, etc.) to howl, whistle'.

6. We come now to the new coinages from native materials on which I wish primarily to focus. For some items a coinage exists side by side with a loanword, as with the following pairs of words: 'squash' q̓ʷaq̓ʷabaq̓aqλ, lit. "yellow inside" (q̓ʷabaq-, q̓ʷabaqak 'yellow, green'), kʷa·š; 'watermelon' čača·qλ, lit. "water inside" (ča-, ča?ak 'water'), wa·tabe·leda; 'molasses' ča·bassit, lit. "sweet liquid" (čabas 'sweet, sugar, candy'), bule·sis; 'shovel' čusu·yakʷ, lit. "for digging" (čus-, čušiλ 'to dig a hole'), še·bila; similar alternative expressions are also presented elsewhere in this paper for 'grapes', 'pepper', 'pie', and 'cross'. Alternative coinages embodying different descriptions or comparisons are also attested, as for 'nickel, 5¢', which is either ?a?ata, lit. "thick ones" (?ata 'thick') or titidičkuk, lit. "looks like a rock" (tidi·čuk 'rock, stone'). Alternative morphological formations expressing approximately the same meaning also occur.

7. The other papers on the general topic of neologisms and linguistic acculturation that I have examined have all organized their materials primarily in one of two ways: either according to the general cultural sphere involved in the terms or according to the grammatical formations present.[9] In the present paper, however, I am experimenting with organizing the derivational neologisms on a semantic basis, according to whether the term involves a straightforward description or a metaphorical comparison, and further according to the various points of departure for description or metaphor. Such a categorization will inevitably be more subjective than the other two types, and will also tend to coincide in places with one or the other of them, but it seemed to be suggested by the richly varied patterns encountered in this language. The examples presented are selective, rather than exhaustive, which runs the danger of distorting the patterns present, but in any case this approach may help to reaffirm my long-standing adherence to the "old curiosity shop" school of linguistics.

8. A wide range of aspects of these acculturational items are used as a descriptive basis for new words.

8.1. Quite common is a description of the function of an item.

This manner of labeling is applied to artifacts of various sorts. The following are a selection from the numerous examples obtained. Many belong to the sphere of tools and utensils: λa·λa·škateyak^{w} 'iron', lit. "for ironing" (λaškat-, λaškatuk 'stiff', r. λa·λą·škata 'to iron'), λaqła·yak^{w} 'key', lit. "for unlocking" (λaqł-, m. λaqłišiλ 'to unlock, untie, untangle, unwind'), čikyaxbałasyak^{w} 'frying pan', lit. "for frying moving about up on" (čiyax-, m. čikyaxšiλ, r. či·či·yaxa 'to fry'), da·ča·wiłyak^{w} 'mirror, looking-glass', lit. "for looking at one's face" (dač-, m. dačšiλ 'to look at'), qu·qu·skidu·ksta·qsuba 'toothpick', lit. "poking around between" (qu·s-, r. qu·squ·sa 'to poke with a long object'), čata·yak^{w} 'pencil, pen, writing instrument', lit. "for writing" (čat-, m. čatšiλ 'to write'), ba·qcqi·ba 'umbrella', lit. "shelter overhead" (ba·q- 'shelter'). Other examples belong to the sphere of wearing apparel: λi?iščaqyak^{w} 'trousers, pants, panties', lit. "for the legs" (λi?iščida 'foot, leg'), λupsaqstuba 'underwear, undershirt', λupsaqλyak^{w} 'men's underwear', lit. "(for) keeping warm under one's clothing" (λub- 'warm, hot'), we?ičkičiqa 'nightgown, pajamas', lit. "sleeping garment" (we?ič 'to sleep'), ta·ta·dakčuba 'overshoes, rubbers', lit. "adding on at feet" (ta·da- 'to add on, pile on, stack up'). Other items exhibit more passive functions in varied semantic domains: yacačis 'stirrup', lit. "stepping surface" (yac- 'to step'), čatačis 'desk', lit. "writing surface", baq^{w}aqsuba 'bridle', lit. "tying in the mouth" (baq^{w}- 'to tie'), čuksac 'wash tub', lit. "washing vessel" (ču-, m. čukiλ 'to wash'), šačuqyak^{w} 'revolver, pistol', lit. "for one hand", we?ičyak^{w} 'mattress', lit. "for sleeping", λapqa·łyak^{w} 'jam, jelly', lit. "for spreading on" (λapq-, m. λapqšiλ 'to plop down, spread'), či?ałyak^{w} 'perfume', lit. "for pouring on" (či- 'to pour'), łiciłuba, łiciłyak^{w} 'rug', lit. "(for) fabric covering floor" (łic- 'fabric spread'), hupa·syak^{w} 'pot, kettle', lit. "for round object to be up on" (hup- 'round object').

Names for edifices typically express their function: we?ičuwas 'hotel', lit. "sleeping building", ha·wa?u·was 'restaurant', lit. "eating building", baku·was 'store', lit. "buying building" (bak^{w}-, m. bakšiλ 'to buy'), baλu·was 'jail', lit. "tying-up building" (baλ-, baλšiλ 'to tie'), ču?u·was 'laundry', lit. "washing building"; and similarly names for rooms in buildings: we?ičuwił 'bedroom', lit. "sleeping room", ha·wa?uwił 'dining room', lit. "eating room" (ha?uk, ha·wa- 'to eat').

Names for occupations of persons likewise refer to these functions: bak^{w}i·ti?i· 'storekeeper', lit. "buyer", babaλeyax 'policeman', lit. "tying up", siqi·ti?i· 'cook' (siq-, siqi·da·k^{w} 'to cook'), čati·ti?i· 'secretary', lit. "writer", čatik 'writer, author', lit. "expert writer".

8.2. These derivational formations are continuations of patterns already extant in the language as applied to native artifacts, and sometimes old and new formations from the same stem exist side by side, as may be illustrated by this sampling of formations on the stem ti- 'to wipe'. These run from indigenous artifacts: tičak^{w} 'small bundle of sticks used for rubbing during a bath', lit. "wiping

instrument", ti·kciba 'fine cedar sticks used as toilet paper', lit. "for wiping at the crotch", through words that may be older neologisms: tibeyiɬyakʷ 'mop', lit. "for wiping around on the floor", ti·tiqsupyakʷ 'dish towel', lit. "for wiping vessels", tiqu·ba 'face towel', lit. "for wiping the face", ti?aksuba 'napkin', lit. "for wiping the mouth", to a presumably relatively recent formation: tiktu·p 'kleenex', lit. "wiping thing".

8.3. Many aspects of the physical makeup of articles are found to have been used as points of departure for descriptions. A number of items are described by their shape, as may be illustrated here for plants: waču̓itqapix̣ 'almond', lit. "thin fruit" (waču̓ida 'thin'), yuyučskapiɬ 'pear', lit. "small at the end" (yuč-, yučak 'narrow'), yuyučwadi 'peanut; ant', lit. "narrow waisted", didix̣sabuwas 'grapes', lit. "hanging in a cluster" (dix̣-, dix̣apɬ 'tangled in a bunch'), čičicitaba 'plum', lit. "cut on the side" (či-, m. čičiƛ 'to cut').

8.4. This approach as applied to artifacts may also be illustrated: ɬuqapɬ 'whiskey flask', lit. "convex around" (ɬuq-, m. ɬuqšiƛ 'convex/concave vertical or inverted; to tip, spill, capsize') kukux̣sw?iq 'macaroni', lit. "holes through" (kux̣-, kux̣ak 'hole'), ?a?ata 'nickel, 5¢', lit. "thick ones", caxtqi· 'steamboat, large boat, ship', lit. "round on the bottom" (caxʷ-, caxʷapɬ 'round', ca·xuk 'to roll, rotate'), paq̓ʷak 'cross (in Shaker church)', lit. "crossed". The expressions for a certain number of dollars are formed by the respective numbers with the classifier suffix for round objects, such as čakwa·qapɬ 'one dollar', bu·qapɬ 'two dollars', there being no independent word for 'dollar'. A shape as resulting more explicitly from an operation is exhibited by these terms: kuku·kiduk 'chain', lit. "hooking together" (ku-, m. kučiƛ 'to hook'), baƛa·pɬ 'barrel', lit. "tied around (referring to the hoops)" (baƛ-, m. baƛšiƛ 'to tie'), šiqi·wadi 'dress', lit. "pleated at the waist" (šiq-, r. ši·qši·qa 'to make pleats'), či·sapi 'telegraph or telephone wire; telegram, telephone', lit. "strung up in the air" (čis- 'strung out'), ƛaƛapq̓aqƛ 'pie', lit. "plopped in", q̓akʷa·pix̣ 'blue trade bead', lit. "cut" (q̓akʷ-, m. q̓akšiƛ 'to cut with sideways motion, whittle'). And more metaphorically: kax̣a·wa·t '50¢ piece', lit. "broken in half" (kax̣-, kax̣šiƛ 'to break up'). A changeable shape is: qi·kwiyaɬ 'pocket knife', lit. "comes out". Some items are also described as functioning to cause a change of shape in another entity: yuču·wadiyakʷ 'girdle', lit. "for a narrow waist", puxsi·?i· 'baking powder', lit. "makes it puff up" (pux-, puxak, puxapɬ 'expanded, puffed up'), ƛacsi·?i· 'butter', lit. "makes you fat, fattening" (ƛac-, ƛaca· 'fat (person)').

8.5. Color is also described, especially in the case of some plants: q̓ʷaq̓ʷabaq̓aqƛ 'squash', lit. "yellow inside", ƛiƛix̣a·diɬ 'carrots', lit. "red leg" (ƛix̣-, ƛix̣uk 'red'). Visible marks are in question in: čata·ɬ 'letter', lit. "writing on fabric-like surface". Light itself is described in laka·čax̣s 'lamp (kerosene or electric)', lit. "light inside" (lakč-, lakčuk 'light'). A different kind of brief display of color or light is found with bučisak 'gunpowder', lit. "flashing" (bu-, bu?ak 'to burn').

8.6. Senses other than sight are also appealed to, such as hearing. The production of sound is a primary function of items such as: ca·ska·yak^{w} 'bell', lit. "for ringing", du·ku·čuˑ'radio, phonograph', lit. "singing in a container" (du-, dudu·k 'to sing'), du·ḳaqλ 'phonograph, music box', lit. "singing inside", ʔukyaxčˑu 'phonograph', lit. "news in a container" (ʔukyax-, ʔukyaxbis 'news'). For other items, the sound seems to us more of a side effect. An egg, dučak^{w}, is literally a "singing device", referring to the cackling of the hen who has laid one. Other cases are: pu·yak^{w} 'gun', lit. "for going 'poo' (that is, 'bang')", λuλubuḳadi 'boat with a motor, engine' (-ḳadi 'to sound like', cf. λubuˑq-, r. λu·λu·buqa 'to hit sticks together, pound to keep time'), λabaxyak^{w} 'slingshot', lit. "for snapping" (λabax-, m. λabaxšiλ 'to snap, click (as a trigger, trap)').

8.7. Taste is described in the labeling of various foodstuffs: ča·bassit 'molasses', lit. "sweet liquid", čačaba·yaqλ 'cake, candy, sweet roll', lit. "sweet inside", qa·łqa·yuqλ, qa·łqa·yuqλap 'pepper', lit. "burns in the mouth".

8.8. Smell is described in the case of čubap 'blue denim; denim overalls', lit. "smelly material" (ču-, čupał 'smelly, stinking').

8.9. The material involved is the basis for the labeling of several objects, often combined with an indication of shape: hihibiksa·dił 'candle', lit. "wax leg" (hibiks 'marrow, tallow, wax'), ṗu·ḳaqλ 'feather mattress, feather bed', lit. "feathers inside" (ṗu·quk 'feathers, down'), libi·tuḳaqλ 'quilt', lit. "sheep [wool] inside" (libi·tu· 'sheep'), łakitapł 'gum hat, sou'wester', lit. "gum around" (łakitbis 'pitch, gum'). 'Chinaware', especially a 'dish' or 'bowl', as well as the material 'glass', is kiλu·k, lit. "breakable" (kiλ-, m. kiλšiλ 'to break, crack, shatter'). Based on this material, a 'glass eye' is kikiλukaqλsił, lit. "glass in the eye". Metals are referred to in: ḳabačapł 'pan, dishpan', lit. "tin around" (ḳaba·č 'tin'), čaʔušapł 'brass kettle', lit. "brass around" (čaʔuš 'raw; brass'), čačʔušwadi 'musket', lit. "brass around the middle".

8.10. Conversely, certain materials are named from the characteristic artifacts made from them: čatqa·yakbap 'galvanized metal', lit. "spoon material" (čatqa·yak^{w} 'spoon'), te·kidisbap 'yarn', lit. "stockings material". Indigenous examples of this pattern would be: q^{w}išsacbap 'clay', lit. "pipe material" (q^{w}išsac 'pipe'), salaxałbap 'cattail (plant)', lit. "cattail-mat plant" (salaxał 'cattail mat').[10]

8.11. A material is alternatively named from its source in the case of libi·tuqał 'wool', lit. "sheep fabric".

8.12. Some introduced animals were named by describing a distinctive body part. Thus ʔi·ʔi·wabił 'donkey' is literally "big ears" (a label which seems ubiquitous among Indian tribes).[11] A nonce-word for 'goat', made up in a church meeting, was hapaʔaksił, lit. "bearded". This pattern of naming animals by describing a body part is well attested also for indigenous animals, e.g., ʔaʔaλʔaqλ 'swallow', lit. "two tails", k^{w}ak^{w}ʔaqλi· 'porpoise', lit. "broken tail", čučuwaxsił 'wolf', lit. "stinking mouth".[12]

9. In contrast to the preceding rather straightforward approaches to labeling new items are many metaphorical comparisons to previously familiar things. These comparisons are greatly encouraged by the existence of the handy suffix -kuk (plus initial CV- reduplication) meaning 'looking like' or 'resembling'. The items seized on for comparison are varied.

9.1. One predominant type involves body parts or products: hahapswi?i· 'brush', lit. "hair-teeth" (hap-, hapsa·yup 'hair'), la·ks?aba 'cap', lit. "tongue at the forehead" (lakʷ- 'to lick', laka·yakʷ 'tongue', lit. "licker"), lačkaqsił 'pitcher', lit. "sharp lips", χaχaškuk 'hardtack, pilot bread, crackers', lit. "looks like bones" (χaš-, χaša·bis 'bone'), čičiyupkuk 'spaghetti, macaroni', lit. "looks like intestines" (čikyup 'intestines'), dudučakkuk 'light bulb', lit. "looks like an egg"(dučakʷ 'egg'). The comparison to the body part is obvious in the case of artificial replacements: λa·λa·sakswi?i·, λa·λa·sakswi?i·yakʷ 'false teeth' (λa·sa-, λa·s?ak 'stranger, visitor; temporary, false'), λa·λa·saqλsił 'glass eye', lit. "false in the eye", λa·λa·saqsta 'wooden leg', lit. "false leg", λa·saqapł 'wig, toupee', lit. "false on the head". Closely related are comparisons to actions of body parts, as with bačakʷ 'clothespin; pliers', lit. "for biting" (ba-, m. bačiλ 'to bite'). Although not a matter of metaphor, it might be mentioned here that 'to row', diλ-, r. diλi·di·λa, is literally "to lean back repeatedly" (cf. di·λap 'to lean backwards', diλił 'to lie on one's back'), thus describing the rower's bodily attitude rather than the function of propelling the boat; from this is derived diλi·yakʷ 'oar', lit. "for rowing". Metaphorical comparisons to body parts and actions are of course common everywhere, and are encountered also in the labeling of items of indigenous Makah culture. Thus, lakʷiłtaba 'point on the prow of canoe' is literally "tongue at the nose", and kada·dis 'projecting ornament on the prow of canoe' is also the word for 'uvula'.[13] ʔiλči·bap 'willow species', is literally "dog plant", presumably involving a comparison to tails (ʔiλč-, ʔidi·λ 'dog') (cf. Eng. pussy willow).[14]

9.2. Other bases for comparison are indigenous fauna and flora. Examples of the former are found in: hahatqkuk 'domesticated goose', lit. "looks like a [wild] goose" (hą·diq 'goose'), babačaskuk 'wheat, grain', lit. "looks like fleas" (bačasi·da 'flea'). Apparent comparisons to the manner of locomotion of certain creatures are seen in: χiχibi?i·s 'streetcar, car', lit. "crawling about on the ground" (χi-, χi·?uk 'to crawl'), łała·pχuk, ła·pχuwiq 'airplane', lit. "flying" (łapχ-, ła·pχuk, m. łapχšiλ 'to fly'). Several apparently indigenous comparisons of one animal to another are also attested: ʔiʔiλčkuk 'coyote', lit. "looks like a dog", čičibičibitqkuk 'muskrat', lit. "looks like a mouse" (čibičibi· 'mouse, rat'), dadaχtačkuk 'teal duck', lit. "looks like a mallard duck" (daχa·tač 'mallard duck'), qiqičkuk 'tick', lit. "looks like a louse" (qič-, qiči·da 'louse').

9.3. Comparisons to indigenous flora include: hihis?atqkuk 'currant', lit. "looks like a red huckleberry" (hisi·?a·da 'red

huckleberry'), qaqawaš̓kuk 'raspberry', lit. "looks like a salmonberry" (qawaš-, qakwey 'salmonberry'), lu·luxaci·yuba 'wattles of a rooster', lit. "thimbleberries at the throat" (lu·luxac 'thimbleberry').

9.4. Comparisons to native artifacts or structures are also found. A 'thimble' (also 'mushroom'), ciciyapuxs̓kuk, is literally said to "look like a hat" (cikya·puxs 'hat'). A 'captain's hat with a shiny brim', či·yaksa?a·, is literally "knife at the forehead" (čiyak^{w} 'knife' [but not the usual term], lit. "for cutting" [či-, m. čičiλ 'to cut with lengthwise motion'; cf. či·ksa?a· 'bangs', lit. "cut at the forehead"]), probably involving a comparison to the indigenous crescent-shaped knife type, called kučitida, k^{w}ičitida. And babałdi 'white man' is literally "house moving about on the water" (ba- 'to dwell', ba?as 'house'), thus involving a comparison of the white men's ships to the Makahs' houses. Among agricultural implements, a comparison of the act of 'raking' to that of 'combing' is implied in λipi·bi?i·syak^{w} 'rake, hay rake, harrow', lit. "for combing about on the ground" (λip-, m. λipšiλ 'to comb', λipi·yak^{w} 'comb'), and, more trivially, a comparison of 'hoeing' to 'chopping' is seen in hisi·bi?i·syak^{w}, hihisbi?i·syak^{w} 'hoe, mattock', lit. "for chopping about on the ground" (his-, m. hišši λ, r. hi·si·sa 'to chop, whip', hisi·yak^{w} 'axe', histu·p 'whip').

9.5. A rather different sort of metaphor to cooking processes is found in the fact that the metals 'brass' and 'copper' are called respectively by the words for 'raw' and 'cooked', ča?uš and siqi· (siq- 'to cook'). This is just the opposite approach to that which we, who are familiar with metals, use when we say that someone is "bronzed" by the sun.

9.6. More abundant are comparisons to inanimate objects encountered in Makah territory. Examples noted include names for foods, plants, and a certain coin: čičisaqkuk 'sugar', lit. "looks like sand" (čisabac 'sand'), hihisck^{w}iqkuk 'soda crackers', lit. "looks like chips from chopping" (hisck^{w}i· 'chips from chopping'), λiλickuk 'Indian bread, buckskin bread, fried bread, biscuits; flour', lit. "looks like white dirt" (λici·bis 'white dirt'), pa·pa·χackuk 'yeast bread', lit. "looks like a honeycomb (referring to the texture of the bread rather than to the shape of the whole loaf)" (pa·χac 'nest, beehive'), titidičkuk 'nickel, 5¢', lit. "looks like a rock" (tidi·čuk 'rock, stone'), titidičaqλ 'cherry', also 'red berry sp.', lit. "stones inside", čača·qλ 'watermelon', lit. "water inside" (ča-, ča?ak 'water').

10. Particularly striking are a number of metaphorical comparisons suggesting the maritime orientation of the culture. The extreme dependence of the Makahs and other Wakashan-speaking peoples on the sea for a food supply and as an avenue of transportation is obvious to a casual observer. Murray Emeneau's teacher Edward Sapir has remarked on the elaboration of vocabulary for naming creatures of the sea in these languages (1912:228; SWES 91) and on the deeply engrained grammatical fact of the occurrence in these languages of suffixes locating action as taking place on the beach, rocks, or sea

(1912:238; SWES 99) as clear linguistic evidence for a seashore environment and cultural interest therein among these Indians. So too in the metaphorical labels for certain introduced plants, foods, and artifacts do we find comparisons to creatures of the sea and to artifacts relating to navigation and fishing, most of which, I am sure, would never occur to one of us. The following are some such items, which of course overlap with preceding categories as being comparisons to animals, including their body parts and products, and to artifacts: ʔaʔačpaba·diɬ 'corn', lit. "salmon eggs on a long object" (ʔačpa·ba 'salmon eggs; kidney'), ʔaʔačpabaḵuk 'cheese', lit. "looks like salmon eggs", tetʔetqḵuk 'cucumber', lit. "looks like a sea cucumber" (teʔidiw 'sea cucumber'), čača·paċaqλi· 'peas', lit. "canoes at the rear" (čapac 'canoe')[15] su·yaqapɬ 'bottle enclosed in wickerwork, demijohn', lit. "fish-net around" (su·yaq 'fish-net; spider-web'), hahaċukitkuk 'cannon', lit. "looks like the large end of a whale's intestines" (haċukit 'large end of a whale's intestines'). In this connection one might adduce also the previously presented metaphorical comparisons to sand and rocks (sec. 9.6). Metaphors of this type are also not limited to acculturational items. Some presumably indigenous examples are: sasadʔaɬḵuk 'angleworm', lit. "looks like fishline" (sadʔaɬ 'fishline made of kelp'), xixicbuqḵuk 'goat's-beard (plant)', lit. "looks like herring eggs" (xi·cbu·ʔu 'herring eggs')[16] či·čibuqqsta, čičibuqspuɬ 'bow-legged', lit. "halibut-hook legs" (čibu·da 'halibut hook').

In connection with these examples, the following quotation from Sapir's paper "Language and Environment" seems particularly relevant: "There is an obvious difference between words that are merely words, incapable of further analysis, and such words as are so evidently secondary in formation as to yield analysis to even superficial reflection. A lion is merely a lion, but a mountain-lion suggests something more than the animal referred to. Where a transparent descriptive term is in use for a simple concept, it seems fair in most cases to conclude that the knowledge of the environmental element referred to is comparatively recent, or at any rate that the present naming has taken place at a comparatively recent time. The destructive agencies of phonetic change would in the long run wear down originally descriptive terms to mere labels or unanalyzable words pure and simple. ... the transparent or untransparent character of a vocabulary may lead us to infer, if somewhat vaguely, the length of time that a group of people has been familiar with a particular concept. People who speak of lions have evidently been familiar with that animal for many generations. Those who speak of mountain lions would seem to date their knowledge of these from yesterday" (1912:230-231; SWES 92-93). In similar fashion, one would safely infer, for instance, that the Makah have been familiar with sea cucumbers for many generations, but have become acquainted with cucumbers only yesterday, while quite the reverse is true of the white man.

11. Attention may be called to a chronological ordering that can be observed in the terms for items of acculturation. It is of

course to be expected that various straightforward derivatives would be formed by the addition of suffixes to the various types of expressions for new items.

11.1. The following are a few examples involving the addition of suffixes to loanwords in the language. From ta·la· 'money, coin, silver' are formed: ta·la·ḳsac 'purse, pocketbook, billfold, wallet', lit. "money vessel", ta·la·te·ʔiɬ 'play-money, counterfeit money', ta·laʔu·was 'bank', lit. "money building", ta·laʔu·waso·ɬuk 'banker', ta·la·x̣tida 'to be made of silver'. From la·ba 'liquor, whiskey' come: la·baqapuɬ 'heavy drinker, alcoholic', lit. "dreaming of liquor", la·baʔu·was 'bar, saloon, tavern, liquor store', lit. "liquor building", la·baʔu·waɬuk, la·baʔu·waso·ɬuk 'bartender'. From ku·la 'gold' we have: ku·ku·lakswiʔi· 'gold tooth', ku·laxtida 'to be made of gold'. From ʔe·pilis 'apple': ʔe·pilisbap 'apple tree'; from ti· 'tea': ti·ksac 'teapot'; and from kibta·la 'horse': kibta·labap 'horse turnip', lit. "horse plant" (perhaps a loan-translation). Other derivatives are of the productive type wherein the stem is the object of a verbal suffix: la·bʔiks 'to drink liquor, whiskey', wa·ydʔiks 'to drink wine', la·bi·dux̣ 'to look for liquor, whiskey', bi·disčak 'to cook beans', ku·takičiƛ 'to put one's coat on', ta·la·x̣tidakʷi·ɬ 'to make something of silver'. From which further derivatives may be made: pa·yisčakyakʷ 'pie pan', lit. "for cooking pies", ti·čakyakʷ 'tea pot', lit. "for cooking tea".

11.2. Completely parallel are derivatives from descriptive expressions, the underlying forms for which are analyzed in other sections, as indicated: ƛa·ƛa·škateyakʷačis 'ironing board', lit. "surface for iron" (8.1), qa·ɬqa·yuqƛapčuyakʷ 'pepper shaker', lit. "for pepper being in a container" (8.7), qaqawaškukasxuɬ 'having a raspberry birthmark on one's chest' (9.3), ba·ba·baɬdiqa 'to talk English' (babaɬdi 'white man') (9.4), baba·baɬdiqaqƛsiɬ 'white man's eyes' (9.4), ƛiƛickukaxsyakʷ 'bread box', lit. "for bread in" (9.6), ta·ta·laqƛsubačuyakʷ 'glasses case', lit. "for glasses being in a container" (11.3).

11.3. But many of the metaphorical comparisons, also, are made to other items which were themselves introduced, presumably thus indicating that the items to which comparison is made either came in earlier or were more commonly encountered. Several examples of this type involve edible plants: ke·ke·bičkuk 'lettuce', lit. "looks like cabbage" (ke·bič 'cabbage'), ʔo·ʔo·linčaskuk 'lemon', lit. "looks like an orange" (ʔo·linčas 'orange'). A comparison to an introduced animal is found in pi·pi·špiškuk 'bobcat; small fur seal sp.', lit. "looks like a cat" (pi·špiš 'cat'). A comparison to an introduced plaything is seen in ba·ba·bliskuk 'radish', lit. "looks like marbles" (ba·blis 'marbles'). The other examples noted involve metals or money: ku·ku·lakuk 'penny', lit. "looks like gold" (ku·la 'gold'), čačʔuškuk 'bronze', lit. "looks like brass" (čaʔuš 'raw; brass'), ta·ta·laqƛsuba 'glasses', lit. "money in the eyes" (ta·la· 'money, coin, silver'). Thus this phenomenon gives indirect evidence for a prolonged period of time during which these neologisms were gradually created.

12. The time span in question doubtless correlates with the diffusion of some of these metaphors over a larger area. Thus the expression for 'white man' is shared by other Wakashan languages, including Kwakiutl. The general approach to neologisms, along with various cognate expressions, is shared by related Nootkan languages. But just as there is variability within Makah, so much the more so in the specific metaphors of related languages. Thus in closely related Nitinat, 'carrots', λiλičakk^{w}, literally "look like wild clover roots" (λič 'wild clover roots'), rather than having "red legs" (sec. 8.5). 'Macaroni', ku·ku·kakk^{w}, literally "looks like worms" (ku·k 'worm, hooked stick'), rather than resembling "intestines" (sec. 9.1). A cognate form, babačsakk^{w}, means 'rice' rather than 'wheat', which is said to "look like maggots" (bačsi·d 'maggots'), rather than "fleas" (sec. 9.2). Conversely, the metaphor may be shared even when the stem form is not cognate. Thus in Nitinat susupčakk^{w} 'sugar' still "looks like sand" (supic 'sand'), although the word is different (sec. 9.6).[17]

This kind of variability reminds us of the accidental or arbitrary nature of some metaphors. But these isolated examples again demonstrate the truism that each language and each culture is a separate prism through which to view the world.

NOTES

[1]A preliminary report on some of this material was offered in Jacobsen 1967. My field work on Makah has been supported by the National Science Foundation, the Desert Research Institute of the University of Nevada, and the Research Advisory Board of the University of Nevada, Reno.

[2]Cf. Bright 1973:716-721 for a survey of the possibilities, with numerous references. An informative survey of the approaches taken by nine Indian groups is found in Voegelin and Hymes 1953.

[3]Cf. Shipley 1962 for a survey of Spanish loanwords in central California.

[4]My field work on Salinan was supported by the Survey of California Indian Languages, Department of Linguistics, University of California, Berkeley.

[5]My work on Washo has been supported by the Survey of California Indian Languages, Department of Linguistics, University of California, Berkeley, and by the Desert Research Institute, University of Nevada.

[6]A preliminary report on these loanwords was given in Jacobsen 1976.

[7]Nootka forms cited are from Sapir and Swadesh 1939.

[8]Abbreviations for aspectual formations: m., momentaneous; r., repetitive; d., durative.

[9]Cf. Bright 1973:719-720 for the major recent references.

[10]Cf. Gunther 1945:21.

[11]Cf. Bright 1960:220, sec. 5.3 and 6.2 for some Californian examples.

[12]Cf. Boas 1931:165 for some descriptive terms for animals in Kwakiutl.

[13]Cf. Waterman 1920:16, items 5 and 4a; the canoe-part meaning for the latter word is taken from this source.
[14]Cf. Gunther 1945:27.
[15]Gunther 1945:39 shows this term as applied to an indigenous plant of the pea family, the giant vetch.
[16]Identification from Gunther 1945:33.
[17]These Nitinat examples are taken from Klokeid 1968.

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