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THE STRUCTURE AND FUNCTION OF NOOTKAN BABY TALK

Joseph F. Kess and Anita M. Copeland

Abstract: This paper deals with the structure and function of baby talk in two Nootkan languages, Ahousaht and Nitinaht. Although the baby talk registers in both of these languages appear to be simplified, it is likely that the primary function of baby talk in Nootkan is an affective one. Comparison is made between both the suppletive and non-suppletive forms in the baby talk register and the normal adult forms. Attention is called to the borrowing of baby talk terms across Northwest Coast languages, as well as to the fact that the baby talk register may be an indicator of the vitality of declining languages such as Ahousaht and Nitinaht.

It is some seventy years since Edward Sapir reported on 'abnormal types of speech in Nootka' (Sapir, 1915) and 'Nootka baby words' (Sapir, 1929). Since then, of course, the Nootkan languages of the West Coast of Vancouver Island have much changed, typically in the reductionist direction of morbidity; linguistics has also much changed, but in the expansionist direction of adding critical disciplines like developmental psycholinguistics. This paper attempts to make comment on both these themes, namely, the declining variety of Nootkan speech functions and the possible role of baby talk in acquisitional terms. At the outset of this research, it appeared possible that the structure and function of Nootka baby talk might provide some insight into the simplification of an elaborate phonology into manageable dimensions of transfer for very young learners. This, however, turns out to be not entirely the case, and the function of Nootka baby talk is largely one of an affective nature, while its structure is only a statistically reduced version of the adult varieties.

Nootkan, actually a family of three languages, stretches from Makah, on the northwestern tip of the Olympic Peninsula of Washington State, to Nitiuaht and Nootka proper on the West Coast of Vancouver Island (see L. Thompson, 1973). Nitinaht is the southernmost language of the Vancouver Island pair, while Nootka proper consists of several dialects further north on Vancouver Island. It is from Ahousaht, one of the northerly dialects of Nootka proper, that the primary baby talk data is drawn, with some comparative data presented from Nitinaht. Since the following discussion revolves around these two languages, plus some additional evidence from the early work by Sapir (1915; 1929), Swadesh (1933), and Sapir and Swadesh (1939) on the dialect of Port Alberni, we will use the adjectival label of 'Nootkan' in a general sense, naming the individual languages where needed in a specific sense.

Although Nootkan, like many other languages, makes use of special intonational and paralinguistic modifications in its baby talk register, this paper did not concentrate on them, other than to notice their presence. A wider range of pitch modulation, higher pitch points reached and on a more sustained basis, whispery or whispered exchanges, lengthening of vowels, all of these and more constitute the ways in which adult Nootkan speakers have children attend to them. It is rather on the other two common baby talk categories (see Ferguson, 1964), namely, modifications of existent morphemes, words, and constructions and a special but restricted set of lexical items that this paper concentrates.

By 'baby talk', of course, is meant that special subset of the language which a language group regards as appropriate for use only to small children, occasionally pets, plants, and the like (see Ferguson, 1964). It is a style which is not part of the larger repertoire presented to other adults, except in certain marked situations like sarcasm, satire, or poignant speech. In its use with very young children, it may consist of a limited suppletive lexical set, phonological substitution or simplification, and

morphological devices like diminutives, reduplication or affixation. Not all of these need occur, and may occur in any combination or proportion. Some languages appear to favor one device over another, as for example, lexical suppletion in Havyaka, a dialect of Kannada (Bhat, 1967), and phonological alternation or substitution in Pitjantjatjara, a Western Desert language of Australia (see Miller, n.d.). Others seem to favor several productive processes for deriving baby talk elements; for example, Cocopa, a Yuman language (see Crawford, 1970, 1978) favors suppletion, reduplication, and affixation, while Comanche (Casagrande, 1964) favors lexical suppletion, with occasional morphologically non-productive reduplication.

At first glance, the reputed simplification and 'downscripting' so commonly described in the literature on caretaker speech and 'motherese' (Snow, 1972; Garnica, 1977; Ferguson and Snow, 1975) seemed to suggest an interesting working hypothesis for Nootka phonology. Could it be possible that a language with a complicated phonology, large in inventory of secondary articulations and complex in phonotactics, would show discernible differences in the phonology of the baby talk items presented to very young children? Within the common folk wisdom appreciation of baby talk is the implied assumption shared by many adults that baby talk may in fact serve more that just an affective function. A common cross-cultural folk belief is that baby talk is easier for children to use, with some adults even believing that baby talk is a tuitional paradigm, presumably easier for the child to imitate and thus learn. The real question seems to be whether baby talk does fulfill didactic functions in addition to the obvious affective function which it obviously serves more for adults than for the children with whom it is used.

One, of course, assumes that most baby talk is taught to children by adults, rather than the other way around. The success rates that very young children have even with their own words when played back suggests too much variety across children to expect uniformity for lexical items right across the developmental population. The interesting question then is really whether adults simplify the words in some uniform fashion in a way that anticipates their, that is, the adults', perceived difficulties in the production of certain phonemes or clusters. In doing so, it is also equally evident that such adult versions must employ impressions of how young language learners in their experience appear to simply simplify as well.

Our working hypothesis was prompted not only by such folk wisdom but by Ferguson's (1964:109) observation that:

baby-talk words either as modifications or normal words or as special lexical items show certain general characteristics. In the first place, baby-talk items consist of simple, more basic kinds of consonants, stops and nasals in particular, and only a very small selection of vowels. One would expect that the rarer, more peculiar consonants or the consonants which tend to be learned later would not be found in baby-talk ...

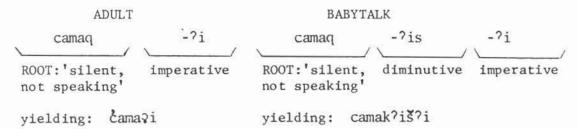
Ferguson (1964:110) goes on to say that:
the child may, and often does, create his
monoremes from other sources such as sound
imitation or fragments of adult utterances, but
the baby-talk items tend to be one of the principal
sources. The baby-talk lexicon of a language
community may thus play a special role in the linguistic development of its children ...

Thus, we tried to collect as complete an inventory of Nootka baby talk items as possible in order to compare them with the phonology of regularized lexical items. One speculates (rather than expects) that some interesting differences may be found in the direction of simplification in a phonological sense. Though any realistic discussion as to what is phonologically 'difficult' or phonologically 'easy' in the hierarchy of speech sounds is problematic, due to combinatory factors, one can argue that sounds which are considered more 'marked', such as the glottalized series are likely to be more complex in an articulatory sense as well. These more complex phones might be expected to be absent, or at least less common, in baby talk.

This notion of simplification in baby talk is not entirely without precedent. Bhat (1967), in discussing the Havyaka dialect of Kannada, notes a simplified inner system as the result of such suppletion, with the features of length and nasalization avoided in baby talk words, as well as an absence of fricatives, laterals, and retroflex sounds. In Nootka, of course, there are glottalized and labio-velarized consonants, which, because of their secondary articulations may then objectively be more difficult than simple stop consonants. Similarly, in classic derivational theory of complexity terms, one might have even expected that the glottalized labio-velarized series would be the most difficult, the latest in acquisition, and consequently absent from the baby talk inventory. Other possibilities suggest themselves. For example, one has both velar and uvular points of articulation /k/ and /q/ in Nootka, and one might expect that the distinction in points of articulation might be neutralized, with a single Jakobsonian velar-uvular choice being the case. The same might be expected of the glottal-pharyngeal dichotomy for both stops /7/ and /5/ and fricatives /h/ and /h/, the laryngealized series for the resonants /m n y w/ versus /m n y w/, and so forth. Reduction to a smaller set of vowels does not really arise in Ahousaht, of course, since there are only three basic vowels in the set; whether or not length appears is, however, worthy of attention. It is with anticipatory questions like these that the lexical inventory was collected, with an eye to inquiring whether in fact such simplifications had been made by adults in their construction and dissemination of such words to young children.

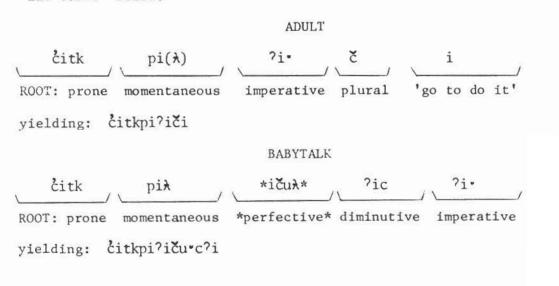
When looking at morphological devices in Nootka baby talk, one notes that the diminutive form does see great use in speaking to or about children, and might even be counted as being more or less tied to this speech style. Sapir (1915) also noted the cus-

tomary addition of the diminutive suffix -'is when speaking to or about children, to verbs and other forms commenting that 'even though the word so affected connotes nothing intrinsically diminutive; affection may also be denoted by it' (Sapir, 1915:3). This diminutive has variants -ic and -is (Swadesh, 1933) which were used widely by our Ahousaht informant. In one case our consultant used the diminutive process productively rather than use the baby talk lexical item that had been previously recorded by Sapir and Swadesh (1939). This loss may be reflective of the reduction of stylistic variety in a declining Nootka speech community, or less likely, simply the restricted currency of the form gathered by Sapir and Swadesh. The form gathered by Sapir and Swadesh meaning 'be quiet' was 'aho'. Our elicitation produced camak'iš' if or the baby talk form -- derived from the adult form as can be seen below:



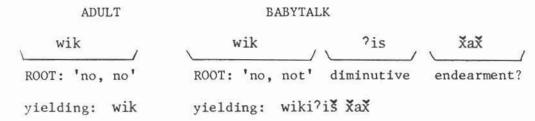
It is evident that Camak?iš?i is more complex than the suppletive form gathered earlier by Sapir and Swadesh.

Our consultant exhibited one case demonstrating some confusion over how suffixes are used productively in baby talk forms. The baby talk form was generated with an apparent disregard for normal rules of suffixation. Compare the adult and baby talk forms for 'lie down!' below.



The extra perfective, -ičux, is aberrant. This is a rather unusual turn of events in Nootka, and gives the impression that the informant may have been trying a novel way of getting all of the information into the form, without exhibiting due regard for the normal rules of suffix affixation. An additional perfective suffix has intruded in the baby talk form which could stem from a confusion between the combination of the imperative and plural suffixes -?i.-č- and the diminutive -?ic- (Suzanne Rose, personal communication). In addition to the diminutives, there is another suffix which appears to be used as a diminutive or to express endearment. This form -xax could probably be loosely translated as 'dear little one'. It is not reported in the earlier literature, either as a root or suffix of any kind; the only form which bears even the slightest resemblance, halma, a root meaning 'dear little girl - vocative' is found in Sapir'and Swadesh (1939) Nootka Texts, but the resemblance is very tenuous.

An example of -XaX is seen in the following pair for 'no!', where adult and baby talk forms may be contrasted.



It may be possible that the XaX form is not actually affixed, but it separated by a juncture and is a separate root. If this form is related to the stand-alone vocative halma, it is likely that it has the same function. Since -XaX was not gathered in a large number of instances, further evidence is needed. Also $X \longrightarrow h$ in Nootka, adding further support to the idea that this is an odd form (Barry Carlson personal communication).

Turning to the lexical inventory itself, one makes that such lexical baby talk items typically number under a hundred in languages and are drawn from specific areas that very young children can be expected to talk about or relate to. These fixed baby talk forms are widely recognized as forms used only with children, and do not include forms which have much less currency in the speech community or which are used only within one family group. Such family forms are typically the result of adults imitating mispronunciations or coinages of children in a particular family or group, and have too little currency for our interests here.

Nootka is no different in having its baby talk inventory drawn from areas dealing with kin terms, bodily functions, warnings, attention-getting devices, and names for animals, play, and familiar objects, as well as those qualities used to describe them. Not all slots in all such categories have baby talk forms. For example, some kin terms do not have baby talk forms, while others do. For example,

Ahousaht has the adult form naniq for 'grandparent', nan or nani for the baby talk form, but has mamis for 'older brother or sister' in both the adult and baby talk registers.

Like Sapir (1929), we also noticed that while some of the Nootka baby talk inventory was derived from the regular vocabulary, other forms were entirely suppletive. As can be seen from the following data, the actual number of suppletive baby talk items is less than a dozen in both Ahousaht and Nitinaht. This could be the result of male informants, and indication that the baby talk register is in a state of decline, or both.

Instead of using suppletive items, the more common strategy seems to be some alteration of the exising adult form. Both suppletion and alteration strategies can be seen in the complete data set which follows.

In Ahousaht, the suppletive forms are phonologically simple, with the phonological segments restricted to sounds which might reasonably be produced by a language-learning child. Suppletive forms, of course, imply no phonological relationship to the adult form and are not built from the same root. Many of the forms dealt with in the paper up to this point have had the same root in both the adult and the baby talk form, but suppletive forms differ completely from the adult forms, or adult variants or euphemisms. For example, the Ahousaht baby talk form hu's obviously bears no correspondence to the adult form wa?i?ču?i 'go to sleep!'. The adult form can be analyzed as a root, we?ič-, with the intrusive ? which may be idiosyncratic, plus some additional material (u), and the imperative suffix. This suffix may be considered by our speaker to be responsible for the glottalization before the /č/, or at least there is a strong probability that this is the case. The baby talk form, on the other hand, can not be analyzed further. This Ahousaht form is very similar to the form in Sapir and Swadesh (1939), ho's glossed as 'sleep, child form'. (The Sapir and Swadesh orthography employs /o/ in place of the current /u/.) Sapir and Swadesh also have another form meaning much the same thing, ?e.ho.s, possibly related to their form meaning 'be quiet', ?aho*, seen previously. Of these three forms given in the 1939 work, it is worthy to note that only one is seen in Ahousaht speech in 1982.

Forms which universally crop up as baby talk items, namely, words for mother, father, food, water, and excretory terms are present in Nootkan. Suppletive forms for these referents are present in the corpus, and are listed in their entirety below for both Ahousaht and Nitinaht.

Nitinaht and Ahousaht thus both have suppletive forms, and not surprisingly, there are differences between the two languages. Even though Ahousaht and Nitinaht are related, there are the expected numerous differences between their baby talk inventory of suppletive lexical items, just as there are for the rest of their respective vocabulary inventories. For example, compare the following.

DATA SET

 $\boldsymbol{\theta}$ denotes a suppletive baby talk form, unrelated to any adult variant with the same menaning.

GLOSS	AHOUSAHT ADULT	AHOUSAHT BABY TALK	NITINAHT ADULT	NITINAHT BABY TALK
Eating				
'EAT'	ha [?] ukin; ha [?] uk ^w in	kwinkwina ⊕pa•pa§	ha?uk ^w e•?idicX	⊕ma•ma
'SUCKLE'		k ^w ink ^w ina		k ^w ink ^w ina
'DRINK'	naqšià	⊕maḥmaḥ	daqšiλ	⊕ma, maḥ
'WATER'	ča•ak	⊕mah •		O mah
'GOOD- TASTING'	čimpał	²ax²um²is	čabsapł	
Playtime				
'TOY'	ka*kana	ka•kana		⊕la•la•
'SMILE!	cimḥ	⊕kakuku		
'CLAP HANDS'	λυμλυμα	Ասի Լսի	lapxi•4kΨ	
'BOO!'	hu	?ix		?u?
'HI!'	?a?a*	²a•x̃ax̃		
'JUMP'	tux [™] šiλ	tuxw	[?] ackatši ²	?ack
'MONSTER'	čiņ°ik			⊕ma•ɔa•
Toilet Terms	and Private	Parts		
'DIRTY'	?aš x mis	pa•pa•tis	?ašxabs	?ix

GLOSS	AHOUSAHT ADULT	AHOUSAHT BABY TALK	NITINAHT ADULT	NITINAHT BABY TALK
'DEFECATE' (GENERAL)	hicmis	čismis	šab	hum
'DEFECATE' (MASC.)	wawik	⊕րսր; pupik		
'DEFECATE' (FEM.)	łučkik	pup; pupik		
'URINATE' (MASC.)	ouqck"i	kuxw		ti•š (Cowichan)
'URINATE' (FEM.)	tiskin	tis		?isano
'PASS WIND'	λiλkcu•	Aidkdidkiš	waxsix	
'PENIS'	kimis	kux ^w yak		
'VAGINA'	hičkun	[?] a [?] a [?] uck ^w in		T)
Relatives				
'MOTHER'	?um?i	⊕ma •ma	?abe•qs	?e*b(voc.)
'FATHER'	nu?wi	⊕t a •ta	duwi?	#de*t (voc.)
'GRAND- PARENT'	naniq	nani; nan		nan (voc.) nane•?§
Learning Ac	tivities			
'WALK'	λičiλ	yı́cyı́c		
'TODDLE'	ži•xa	či•x		⊕ре*ра
'GIVE ME'	[?] ini [?] is	²ini²is <u>xax</u> ,	hacse*?b	te•?b
'HURT OR INJURY'	?usuqta	hixpiq	?u*suq₩	⊕na*na; [?] a*na*

GLOSS	AHOUS AHT ADULT	AHOUSAHT BABY TALK	NITINAHT ADULT	NITINAHT BABY TALK
'SIT'	tiqpiλ	tiq	tiqpii	
'YES'	hi?i	hi?i xax		
'NO'	wik	wiki?iš žaž		
'STAND UP'	taqýiči≯	⊕hito; heto		
'PUT CLOTHES ON'				⊕ni•ni•
'BE QUIET'	čamaşi	čamak?iš?i		
	impera	itive	not imp	erative
'LIE DOWN'	čitkpi ⁷ iči	čitkpi?iču•c?i	čitkpi≯	⊕hu•š
'GO TO SLEEP'	wa?i?ču?i	⊕hu•š	we?ič	⊕hu•š
'GOODBYE'	yu cyu c	ču•č		

Examples where -xax is added to form baby talk

	AHOUSAHT ADULT	BABY TALK -XaX FORM
'GOOD'	λuł	λ ułx̃ax̃
'SIT STILL'	Aanii	Aani1xax
'GEORGE'	dzərdz	dz⊃rdz x ax
'CAPE'	Aitin'	*itin1xax
'SICK'	ta [?] ii	ta [?] iłxax
'YES'	hi?i	hi?ixax; hi?ix

GLOSS	AHOUSAHT BABY TALK	NITINAHT BABY TALK
'EAT'	pa•paš	ma*ma
'DEFECATE'	pup	•
'DRINK'	maḥmaḥ	ma
'WATER'	mah	mah
'SMILE'	kakuku	·
'TOY'		la•la•
'MONSTER'		ma·⊃a·
'DIRTY'	a.a.tis	
'FATHER'	ta•ta	de*t
'MOTHER'	ma*ma	
"WALK"		pe*pa
'HURT'		na•na; ?a•na•
'PUT ON CLOTHE	s'	ni*ni*
'GO TO SLEEP'	huš	hu•š

It is interesting to note the phonology of the Nitinaht forms for some suppletive items, because Nitinaht adult phonology has no nasal consonants (except in borrowed forms like mahmu 'moonsnail shell' and others) whereas Ahousaht contains four nasals. Nitinaht is one of a group of languages whose basic phonological inventory does not include primary nasal consonants (see Haas, 1968 and Thompson, 1973, for further discussion); the other languages are Quileute in the Chemakuan family, Duwamish, Snoqualmie, and Snohomish in the Salishan family, and Nitinaht, together with Makah, in the Wakashan family. Although this is an areal feature which has spread across linguistic boundaries, it appears that primary nasal consonants do appear in some baby talk forms in the language. For example, the forms in Nitinaht are as follows.

NITINAHT

	ADULT	BABY TALK
'drink'	daqšik	mah
'eat'	ha?uke•?idicx	ma m
'hurt or injury'	?u*suq*	na•na
'put on clothes'		ni*ni

Interestingly enough, although nasals are not normally present in the adult phonology, they are present in the baby talk register. This inclusion of abnormal phonological elements is not unknown in the baby talk register in other languages of the area. Quileute, a Chimakuan language spoken on the adjacent Olympic Peninsula in Washington State, also lacks nasals in its adult phonology, but contains nasals in its baby talk (Frachtenberg, 1917). The similarity between the baby talk of Quileute and that of Nitinaht is also striking in showing nearly identical items in several instances. For example, compare the following.

GLOSS	QUILEUTE BABY TALK	NITINAHT BABY TALK
'toy'	1ā'1a'	la•la•
'clothes'	di'di'	ni*ni*
'food/eat'	bā'ba'	ma•ma•

Although the Quileute forms here have not been constructed using nasal consonants, the consonants used correspond to the Nitinaht consonants in all features except nasality. A possible explanation is that these items were borrowed from Quileute into Nitinaht through Makah, a path that was taken for the borrowing of other lexical items (Thom Hess, personal communication).

An interesting example of borrowing with a semantic shift is found in the Ahousaht form meaning 'urinate, fem.'. Ahousaht gives tiskin as the adult form; with the suffix deleted it becomes tis, the baby talk form. Interestingly enough, tis is given as the Cowichan baby talk form for the masculine sense of the word 'to urinate'; Cowichan is a neighboring Salish language of eastern Vancouver Island. This Cowichan form was elicited from the Nitinaht informant, who gave no Nitinaht baby talk form for 'to urinate' in the masculine sense, but did give 'isano' for the feminine form. Compare the form given by Sapir and Swadesh, k anox, the female sense of 'to urinate' in the adult register. The only form given by Sapir and Swadesh which looks like tis or tis is tic which means 'large drops of rain fall from trees', which, though colourful, does not seem to express the same thought, although it might be the basis for a widespread euphemism. Obviously, some adult form may underlie two such similar forms in Cowichan and Ahousaht.

It has been suggested (Ferguson 1964; Ferguson 1976) that baby talk items are also subject to cultural diffusion. There is a strong tendency for ethnolinguistic features like politeness formulas, folk literature, and artifactual folklore to diffuse with other elements of culture across language boundaries (Ferguson 1981), and baby talk appears to fit into this set of transferrable cultural categories. In addition to the Quileute-Nitinaht ties, one finds other lexical examples of diffusion in the Northwest Coast area, restricted in a manner similar to that described for several items in the Mediterranean and Middle East areas (see Ferguson 1964).

For example, one finds baby talk elements hum 'to go to the toilet' in Sahaptin, spoken by the Yakima of central Washington, and hum 'to defecate, to poop' in Nitinaht. According to Weeks (1973:66), this is a standard Sahaptin word meaning 'unpleasant smell' but has uses in baby talk. This must be the result of some diffusional drift from Nootkan to Sahaptin by way of Nootkan prominence in the extinct trade language Chinook Jargon. Chinook Jargon also has humm meaning 'bad smell', derived from Nootkan hama's 'to defecate' (Barbara P. Harris, personal communication), and has obviously served as the source for the Sahaptin form. Given the fact that Sahaptin had contributed practically nil to the Jargon, it is safe to assume that the above directionality is the correct one.

Secondly, given the close parallels in the mythologies and cultural patterns of the area, it seems likely that general strategies of baby talk formation probably had diffusional parallels in the once viable and highly interactive Northwest Coast language communities. For example, Quileute, mentioned above, shares much culturally with Makah and Nootka to the north, and does indeed show other parallels in both the general principles of suppletion and the specific strategy of 'consonantal or vocalic play' (see Frachtenberg, 1917) to characterize the speech types of very young children, individuals with certain physical defects, mythological beings or animals.

Like most of the other indigenous languages of the Pacific Northwest, the phonological inventory of Nootka is large and the phonotactics complicated. There are glottalized series of both obstruents and resonants, as well as distinctive velar and uvular articulations, with labiovelarized series at both points of articulation. In addition, there are distinctive glottal and pharyngeal stops as well as fricatives. In a simple traditional phonemic taxonomy, the phonological system of Ahousaht looks like the following.

ADULT AHOUSAHT PHONEME INVENTORY

A comparative of suppletive baby talk with adult speech shows considerable phonological reduction. However, by comparing the consonant inventory of both the suppletive and non-suppletive baby talk forms with that of adult speech, one notes that the baby talk inventory is not greatly reduced.

AHOU	SAHT	SUPPL	ETIVE	AND	NON-	SUPPL	ETIVE	BABY	TALK	FO	RMS
p	t	C	č	A	k		q	q'	7	0	
ŕ	ť	č	č	ž		k۳				?	•
	s		š	1		xw	ž	X		h	h
m	n		у	W							
			ÿ								
i	(e)		u	u•		(u)	а	a•	<u>G</u>		
		SU	PPLETI	VE E	ABY T	TALK :	INVENT	ORY			
		p	t			k		5			
		p					h	<u>h</u>	Ø.		
					š						
		m									

The glottalized series appears with no less irregularity than the plain series. So also does the labiovelarized series appear, though with much less frequency; but, then too, the labiovelarized series appears with much less frequency in the language anyway. The velar and uvular points of articulation have not been reduced to a single choice to or to a single neutral point of articulation. The same is true for the glottal and pharyngeal stops and fricatives. Both appear, though with somewhat less frequency on the part of the pharyngeal stop when compared to the glottal stop. This, however, is paralleled by the greater appearance of the pharyngeal fricative over the glottal fricative. Indeed, it seems that the frequency distributions, at least in an impressionistic sense, seem to match the distribution of adult phonotactics, that is, more /?/ than /ɔ/ and more /h/ than /h/, but on a reduced scale. As to the antiquity of the forms containing pharyngeals, one might add that Jacobsen's evidence (1969:125) on the origin of the Nootka pharyngeals shows

u.

a.

i

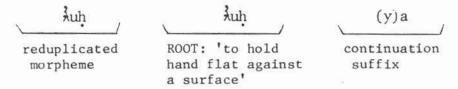
that these two phonemes are relatively recent developments, going back neither to Proto-Wakashan nor even to Proto-Nootkan.

The question of reduction for the glottalized resonants is harder to discern, for only one case of glottalized resonant appears, namely, /ý/. This could, however, be due to a limited collection of data, where only one turned up. There does not seem to be any avoidance of presumably more difficult articulations in general, for one has consonants like /c c c c t t k k s t x / in the baby talk forms elicited. Nor are vowel articulations avoided (only three to begin with), and length is retained as a structural feature. Although there is some small degree of reduction in the phonology of baby talk forms when compared to the adult phonology, one suspects that this may simply be the result of a restricted set of lexical items in the baby talk inventory. If this inventory was as large as the regular lexical set, one would likely have the entire range of phonological segments. Then, too, the reason for the relative infrequency of the Nootka phonemes $/\dot{q}$ \dot{q} \dot{x} \dot{x} in the baby talk forms is because of their relative infrequency in the adult phonology (see Jacobsen 1969). There are also few Nitinaht words containing /q/ or /qw/, and many of these words are borrowings historically from Makah (Jacobsen 1969:144). In Jacobsen's (1969) analysis of Nootka, $/q^w/$ appears in only ten morphemes, $/\dot{q}$ in fourteen, and $/x^w$ in twenty-five stems, while /x/ is numerous but largely confined to names and words of special stylistic force.

There does not appear to be any typically canonical shape for baby talk forms, although their CVC, CV, and CV shapes constitute the overwhelming majority of syllable shapes for baby talk forms of both the suppletive and non-suppletive types. One observation, made in the absence of a complete phonotactics for Nootka, is that baby talk forms do not show the same degree of consonantal clustering that the adult forms do. For example, some not exceptionally exotic forms are tahtuqq", ?akinapq, puqck"i, and citkpi?ici, while most baby talk items found in the data set typically do not exhibit the same complex sequencing, being limited to CV., CV., and CVC syllable shapes. This is partially a reflection of suffix loss or simplification which simplifies the baby talk forms.

Reduplication has been cited as a common stylistic characteristic of the baby talk register, although not all language use reduplication for grammatical purposes. Perhaps the reason for the wide use of reduplication stems from its use by language-learning children themselves. For example, Schwartz, Leonard, Wilcox and Folger (1980) found that some children use reduplication as a means of producing disyllabic words when their phonological inventory is still small. About half of language-learning children studies by Schwartz, et al exhibited reduplication as an abiding strategy in word formation (see also Moskowitz, 1970). If one acknowledges the possibility that baby talk is to some extent patterned after the speech of children, then it is equally possible that reduplication is a strategy

which one might well expect to be exhibited in baby talk. Reduplication does play a grammatical role in Nootka morphological processes in adult language, and the reduplication found in baby talk seems to be generally related to grammatical processes in the adult form of the language. Moreover, reduplication is retained in the language directed toward children even in forms where the suffix which conditions the reduplication is deleted. Grammatical reduplications in Nootka are of two major types. The first type yields a meaning change; this change involves the meaning of the root, indicating that the entity, action or state which is expressed by the root is spread over time or space. In other words, reduplication of the root means to repeatedly do an action, or to have something exist here and there in a distributive sense. For example, an Ahousaht form with reduplication of this type is seen in Auhauha, 'to clap hands', seen below.



The second type of reduplication imposes no additional meaning to the root, but is obligatorily required by certain suffixes (see Rose, 1976). This non-meaning-altering reduplication can be seen in the example for haḥawikkuk, 'resembling a chief', seen below.

ha	hawi1	kuk
reduplicated morpheme	ROOT: 'chief'	SUFFIX 'resembling' (obligatory redup- lication)

The baby talk register in Nootka, another type of reduplication is seen which is unlike the grammatical reduplications given above. It is a phonological reduplication which bears a striking resemblance to the phonological reduplications in English (e.g., wawa, tumtum, booboo) and other language's baby talk forms, having the same appearance as forms which are generated by language-learning children themselves. For example, several of these reduplicative baby talk forms juxtaposed with their adult counterparts follow.

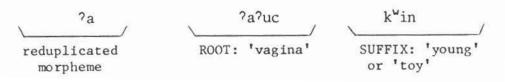
GLOSS	ADULT FORM	BABY TALK FORM
'mother'	?um?i (Ahousaht)	ma*ma
'hurt or injury'	?u*suq* (Nitinaht)	na*na
'let's eat!'	ha?uke*?idicX (Nitinaht)	ma*ma
'drink'	naqšiλ (Ahousaht)	mahmah

GLOSS	ADULT FORM	BABY TALK FORM
'father'	nu?wi (Ahousaht)	ta•ta
'walk'	λίζιλ (Ahousaht)	yı́cyic

These phonologically reduplicated forms are quite different in form and complexity from the grammatically reduplicated forms seen above, and from the adult forms of the words in the preceding example. If the baby talk register demands drastic simplification in the phonology, the length and the complexity of the word, what happens in languages like Nootka when a grammatically reduplicated word is directed to children? Since the baby talk register appears to demand simplicity, are reduplicating morphemes dropped in order to simplify, even though reduplication of other types seems 'natural' for children to produce and understand? In some examples from Nootka the reduplicative morpheme is retained, while the suffix which conditions its presence may be lost. For example, huhkuha becomes Auhauh when elicited as baby talk. While a loss of such a small suffix is hardly a major simplification, it is indicative of a larger pattern of simplification by suffix deletion, as well as giving an indication that the reduplicative morpheme is regarded as simple enough to be retained in forms directed toward children, while suffixes are regarded as excess baggage. There are other examples of suffix loss in the baby talk register, besides loss of the durative (continuation) suffix in reduplicated forms seen above. The durative is also lost in non-reduplicated forms such as the following.

GLOSS	ADULT FORM	BABY TALK FORM
'to toddle'	či•xa (Ahousaht)	či *x

While on the subject of suffixes, it is worth noting that appearance in the invention and use of euphemistic expressions with children. For example, in Ahousaht, one euphemistic form in baby talk is kux yak meaning 'penis'. This form makes use of the instrumental suffix -yak("-) with one of the roots, kux", which means 'to urinate', yielding the form kux yak, meaning more or less 'tinklething'. Another interesting use of suffixes occurs in the Ahousaht baby talk form for 'vagina'; this form employs one of the roots meaning 'vagina' plus the suffix -k"in meaning either 'young' or 'toy' (it is unclear which sense of the suffix is meant). The -k"in suffix demands reduplication of the first CV of the root, thus the form which results is the fairly complex form



yielding: ?a?a?uckwin

In conclusion, part of the problem of studying a specialized register such as baby talk in languages like Nootka is that the language is in the process of decline. When languages like Nootka are reduced through the intrusion of superordinate languages like English, such declining languages operate within more and more circumscribed social settings, resulting in a functional narrowing. The baby talk paradigm thus touches crucially on the language death question, for this must be one of the first speech functions to be curtailed as the language fails to be passed on to succeeding generations. While the topic of language death has received a good deal of attention recently, both in general terms (for example, Dorian 1973, 1976a, 1976b, 1977, 1978; Dressler 1972) as well as specifically in regard to Amerindian languages (Elmendorf 1981; Hill and Hill 1977; Knab 1980; Miller 1971), most of these have concentrated on structural features like phonological shifts or morphophemic weakening of productive processes. Speech functions are also a crucial reflection of this decremental evolution, with baby talk one of the more specific and well-bounded of these speech styles.

Declining languages are characterized by uncertainties and stylistic shrinkage on the part of its speakers (see Dressler 1972), with conflation or loss of specific speech styles. The baby talk register has been seen by some (Ferguson 1964; Ferguson 1976; Crawford 1977) to be rather conservative, with some key items in use for exceptionally long periods of time, but this only applies to viable speech communities, which many Northwest Coast languages no longer are. Additionally, much dialect levelling and borrowing has occurred among native language groups as their numbers have declined. Very simply, the best speakers of Northwest languages, including Nootkan, are bilingual. Any schooling was undertaken in English, and many speech functions in the language community itself have been overtaken or influenced by English, with the generation succeeding this generation of elders only passive 'hearing bilinguals'. Even many of the elders are monolingual in English.

As is the case with many other Amerindian languages, there are very few, if any, monolingual speakers of Nootka, and it is more the case that the language is spoken by a declining number of elders. A better term for spoken would be 'remembered', with the language being employed for more and more limited social interaction (see Miller, 1971, for a similar example in Shoshoni). Rarely is the language being learned by very young children as their first language, with the consequent loss of speech functions like baby talk, at least in the richness that past generations would have enjoyed. Even this last generation of elders may have only partially learned the entire range of speech functions or may have let certain speech function styles fall into memory loss through disuse. One also finds some examples of loss from earlier data

collection. For example, where Sapir (1929) collected the following, with the following glosses: 'ɔ'.ɛ'c as 'dirty, don't do it!', 'as a warning to a child that handles dirt'; ka'x', 'sore, hurt'; 'used by children as a conjugatable stem'. Our Ahousaht informant provided these as 'ič, and akax with the same meanings for both children baby talk and adult forms. Sapir (1929) gives the forms lo'lo' 'white man' often used to scare a child, like our 'boogie man' and hox, 'dirty, don't do it!' as a warning to a child that handles dirt. Both have been retained by our informant, but again, stripped of their exclusive baby talk designation. Of course, Sapir's work was largely based on the dialect of Port Alberni at the end of Barkley Sound, while Ahousaht is a neighboring dialect. Still, the differences from now to then may be as much attrition as dialectal variation, and in either case, make an interesting comment on changes in such forms over either time or space.

Sapir (1929) offered only about a dozen and a half baby talk entries, but did not mention any lack of fluent recall. One speculates that the language must have exhibited greater vitality in Sapir's time, for otherwise Sapir would have likely commented on it in the same subjective fashion that he allowed himself in an evaluation of Haida phonetics the same year (Sapir, 1929). Our experience, of course, seems to point in the opposite direction. This problem obviously has larger implications for field work in general, for how is the researcher to assess the completeness of and intactness of the language version he receives from his informants (see Dorian 1977; Dressler 1972)? Even when informants are monolinguals or near-monolinguals, rather than acknowledged bilingual semi-speakers, one may ask to what degree the entire range of speech functions continues to be represented by such apparently knowledgeable informants.

In summation, our inquiry into the structure and function of Nootkan baby talk suggests that Nootkan speech forms addressed to very young children serve an affective rather than a didactic function. It is, however, true that the category of suppletive items exhibits a reduced phonology and simplified word shapes, but the body of data typically available in this category is small enough to cause hesitation in hypothesizing beyond this observation. The non-suppletive category is at the same time characterized by selective morphological simplifications or the addition of identifying morphological elements like diminutives. Very simply, there are obviously differences between the baby talk speech style and normal discourse styles, but the differences are neither sufficiently large or transparent enough to claim that they constitute pedagogical protocols for initiation into the rigors of Nootkan phonology. On the other hand, they are clearly affective in their intent and manifestation, and in this respect parallel baby talk registers found elsewhere. Finally, our work with these two Amerindian languages of the Northwest Coast suggests that baby talk forms

are among the first speech styles to waver in declining language communities, and that fluency in the baby talk register may be used as at least one simple metric for estimating the vitality of moribund languages.

NOTES

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