The Structure and Function of Nootkan Baby Talk[1]
Part I

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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 adult varieties.

Nootkan, actually a family of three languages, stretches from Makah, on the northwestern tip of the Olympic Peninsula of Washington State, to Nitinaht and Nootka proper on the West Coast of Vancouver Island (see L. Thompson, 1973). Nitinaht is the sourthernmost language of the Vancouver Island pair, while Nootka proper consists of a number of dialects further north on Vancouver Island. It is from Ahousaht, one of the north central 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.

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, and occasionally to 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 they 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 favour several productive processes for deriving baby talk elements; for example, Cocopa, a Yuman language, (see Crawford, 1970, 1978) favours suppletion, reduplication, and affixation, while Comanche (Casagrande, 1964) favours lexical suppletion, with occasional morphologically non-productive reduplication.

Although Nootkan, like many other languages, makes use of special intonational and paralinguistic modifications in its baby talk register, this paper does 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 and lengthening of vowels - all of these and more constitute the ways in which adult Nootkan speakers have children listen to them. It is rather 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 on.

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 that baby talk may in fact serve more than 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 apparently serves more for adults than for children.

One assumes, of course, 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 whether adults simplify the words in some uniform fashion in a way that anticipates the adults' perceived difficulties inherent in a potential hierarchical ranking of the phonolgy. If this is so, it is equally evident that such adult versions must employ impressions of how young language learners in their experience appear to simply simplify.

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 of normal words or
> as special lexical items show certain general characteris-
> tics. In the first place, baby-talk items consist of sim-
> ple, 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...

He goes on (p.110) 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 that some interesting differences may be found in the direction of simplification. Though any realistic discussion as to what is phonologically 'difficult' or phonologically 'easy' in the hierarchy of speech sounds is problematic, because of 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, there are glottalized and labio-velarized stop 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 stop series would be the most difficult, the latest in acquisition, and consequently absent from the baby talk inventory. Other possibilities suggest themselves. For example, there are 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 (/ ? / and / ʕ /) and fricatives (/h/ and /ḥ/), the laryngealized series for the resonants (/m̰ n̰ y̰ w̰/ versus /m n y w/), and so forth. Reduction to a smaller set of vowels does not really arise in

Ahousaht, 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 in mind that the lexical inventory was collected.

Most students of baby talk have concentrated only on the language spoken by adults to children, and this study also aimed to do so. It is difficult, however, to determine which of the forms may have been spoken ABOUT children instead of TO children. This potential complication may account for the presence of certain very complex articulations in the corpus. Pharyngeals, for instance, may be present in the sample in forms used about or around children, and have been gathered erroneously. In order to determine if this is indeed the case, it may be necessary to revisit.

As far as morphological devices in Nootka baby talk are concerned, there does not appear to be any specific baby talk affix, nor any specific inflectional affixes as such. The diminutive form does see great use in speech to or about children, and might even be counted as being more or less tied to this style. Sapir (1915) also noted the customary addition of the diminutive suffix /-?is/ when speaking to or about children, on 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 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?iX̌?i / for the baby talk form - derived from the adult form as can be seen below:

ADULT			BABYTALK	
\ camaq /	\ ?-i /	\ camaq /	\ -?is /	\ ?- i /
ROOT: silent not speaking	IMP	ROOT: silent, not speaking	DIM	IMP

yielding: / ćama?i/   yielding: / camak?iś?i/

It is evident that / camak?iš?i / is more complex than the suppletive form gathered earlier by Sapir and Swadesh. One interesting phonological characteristic of baby talk form is that the glottalization present in the suffix is blocked in the baby talk form, but is not blocked in the adult form. This may be the result of the diminutive suffix, or a conscious effort to keep complicated phonological elements like glottalization out of the child forms. This notion of simplification is addressed further in the section on phonology, but looking ahead, it seems safe to say that this is not the case.

Our consultant produced one form demonstrating some confusion over how suffixes are used productively in baby talk. 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.

ADULT

citk	pi(ƛ)	?-i·	č	i
ROOT: 'prone'	PERF	IMP	PL	'go to do.it'

yielding: / čitkpi?iči/

BABY TALK

citk	pi(ƛ)	*ičuƛ*	?ic	?-i·
ROOT: 'prone'	PERF	*perfective	DIM	IMP

yielding: / čitkpi?iču·c?i /

The extra perfective, /*-ičuƛ /, is aberrant. This is rather unusual 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 suffixation. The additional perfective suffix in the baby talk form 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 these diminutives, there is another suffix which appears

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to be used as a diminutive or to express endearment. This form /-x̌ax̌ /, 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, / ḥaⱡma /, a root meaning 'dear little girl' in the vocative, is found in Sapir and Swadesh (1939) Nootka Texts, but the resemblance is not strong.

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

ADULT			BABY TALK
wik	wik	ʔis	x̌ax̌
ROOT: 'no, not'	ROOT:'no, not'	DIM	endearment?
yielding: / wik /	yielding: / wikiʔiš x̌ax̌ /		

It may be possible that the / x̌ax̌ / form is not actually affixed, but is separated by a juncture and is a separate root. If this form is related to the stand-alone vocative / ḥaⱡma /, it is likely that is has the same function. Since /- x̌ax̌ / was not gathered in a large number of instances, further evidence is needed.

Turning to the lexical inventory itself, one notes that such lexical baby talk items typically number under a hundred in most languages and are drawn form 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. 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', and /nan/ or /nani/ for the baby talk form, but has

	DATA SET			
⊕ denotes a suppletive babytalk form, unrelated to any adult variant with the same meaning.				
GLOSS	AHOUSAHT ADULT	AHOUSAHT BABYTALK	NITINAHT ADULT	NITINAHT BABYTALK
Eating				
EAT	haʔuk̉in; haʔukʷin	k̉ʷinak̉ʷina pa·paš	haʔuke·idicx̌	⊕ma·ma
SUCKLE		k̉ʷink̉ʷina		k̉ʷink̉ʷina
DRINK	naqši ƛ	⊕maḥmaḥ	daqši ƛ	⊕ma, maḥ
WATER	ča·ak	⊕maḥ		⊕maḥ
GOOD-TASTING	čimp̉aɫ	ʔaxʔumʔis	čabsapɫ	
Playtime				
TOY	ka·kana	ka·kana		⊕la·la·
SMILE!	cimḥ	⊕kakuku		
CLAP HANDS	ƛuḥƛuḥa	ƛuḥƛuḥ	ƛapx̌i·ɫkʷ	
BOO!	hu	ʔix̌		ʔuʔ
HI!	ʔaʔa·	ʔa·x̌ax̌		ʼ
JUMP	tuxʷšiƛ	tuxʷ	ʔackatšiƛ	ʔack
MONSTER	čiḥʔik			⊕ma·ʔa·
Toilet Terms and Private Parts				
DIRTY	ʔašx̌mis	ʔa·ʔa·tis	ʔašx̌abs	ʔix̌

GLOSS	AHOUSAHT ADULT	AHOUSAHT BABYTALK	NITINAHT ADULT	NITINAHT BABYTALK
DEFECATE (GENERAL)	ḥicmis	čismis	šab	hum
DEFECATE (MASC.)	ẃaẃik	p̓up̓; p̓up̓ik		
DEFECATE (FEM.)	ɫučkik	p̓up̓; p̓up̓ik		
URINATE (MASC.)	ʔuqckʷi	kuX̌ʷ		ti·š (Cowichan)
URINATE (FEM.)	tiskin	tis		ʔisano
PASS WIND	ƛiƛkcu·	ƛiƛkƛiƛkiš	waX̌šiƛ	
PENIS	k̓imis	kuxʷyak		
VAGINA	hič̌kun	ʔaʔaʔuckʷin		
Relatives				
MOTHER	ʔumʔi	ma·ma	ʔabe·qs	ʔe·b (voc.)
FATHER	nuʔẃi	ta·ta	duwiʔ	de·t (voc.)
GRAND-PARENT	naniq	nani; nan		nan (voc.) nane·ʔš
Learning Activities				
WALK	ƛič̌iƛ	y̓icy̓ic		
TODDLE	č̓i·xa	č̓i·X̌		pe·pa
GIVE ME	ʔiniʔis	ʔiniʔisX̌aX̌	hacse·ʔb	te·ʔb
HURT OR INJURY	ʔusuqta	hiX̌piq	ʔu·suqʷ	na·na; ʔa·na·

GLOSS	AHOUSAHT ADULT	AHOUSAHT BABYTALK	NITINAHT ADULT	NITINAHT BABYTALK
SIT	t̓iqpiƛ	ƚiq	t̓iqpiƛ	
YES	hiʔi	hiʔix̌ax̌		
NO	wik	wikiʔix̌x̌ax̌		
STAND UP	taqÿičiƛ	⊕hito; heto		
PUT CLOTHES ON				⊕niˑniˑ
BE QUIET	c̓amaʔi	c̓amakʔix̌ʔi		
LIE DOWN	čitkpiʔiči	čitkpiʔičuˑcʔi	čitkpiƛ	⊕huˑš
GO TO SLEEP	waʔiʔčuʔi	⊕huˑš	weʔič	⊕huˑš
GOODBYE	ÿuˑcÿuˑc	čuˑč		

(curved line under LIE DOWN / GO TO SLEEP area labeled "imperative" on the Ahousaht side and "not imperative" on the Nitinaht side)

Examples where -x̌ax̌ is added to form babytalk

	AHOUSAHT ADULT	BABYTALK -x̌ax̌ FORM
GOOD	ƛuƚ	ƛuƚx̌ax̌
SIT STILL	ƛaniƚ	ƛaniƚx̌ax̌
GEORGE	dzɔrdz	dzɔrdz x̌ax̌
CAPE	ƛitinƚ	ƛitinƚx̌ax̌
SICK	taʔiƚ	taʔiƚx̌ax̌
YES	hiʔi	hiʔix̌ax̌; hiʔix̌

/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 or suppletive baby talk items in both Ahousaht and Nitinaht is quite small, nine and eleven respectively. This could be either the result of having male informants, an indication that the baby talk register is in a state of decline, or both.

Instead of the use of suppletive items, the more common strategy seems to be some alternation of the existing adult form. Both suppletion and alteration strategies can be seen in the complex data set attached as Appendix I.

In Ahousaht, the suppletive forms are phonologically simpler than adult forms, 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. Some 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 baby talk forms differ completely from the adult forms, and from adult variants or euphemisms. For example, the Ahousaht baby talk form hu·š̌ 'go to sleep!' obviously bears no correspondence to the adult form / wa?i?č̌u?i/. The adult form can be analyzed as a root, /we?ič̌ɫ, plus /u/, and the imperative suffix. This suffix is responsible for the glottalization before the /č̌/, 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 given in Sapir and Swadesh (1939), /ho·š̌/ 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·š̌ /, possibly related to their form / ?aho· / 'be quiet', seen previously. Of these three forms, it is worth noting that only one is found 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 all 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.

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

GLOSS	AHOUSAHT BABY TALK	NITINAHT BABY TALK
'eat'	pa·paš	ma·ma
'defecate'	pup̓	
'drink'	maḥmaḥ	ma
'water'	maḥ	maḥ
'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; ʔa·na·
'put on clothes'		ni·ni·
'go to sleep'	huš	hu·š

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, /ti·š/ 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 / ʔisano. / for the feminine form. Compare the form given by Sapir and Swadesh, / kʷańox/, the female sense of 'to urinate' in the adult register. The only form given by Sapir and Swadesh which looks like /tis/ or /ti·š/ is /ťic/ 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 the 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 had /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 nothing to the Jargon, it is safe to assume that the above directionality is the correct one.

Secondly, considering 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, or mythological beings or animals.

For the sake of brevity, this paper will be curtailed at this point, to be continued in the next issue of WPLC. In that issue a discussion of the various types of reduplication in Nootkan and in baby talk will be put forth. The phonology of Nootkan baby talk items will be compared with the phonology of the adult corpus and will be explained in detail. Cultural diffusion and language decline effects will also be discussed.