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VERB CONCATENATION IN LAHU: THE SYNTAX AND SEMANTICS OF 'SIMPLE' JUXTAPOSITION

by

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1.0. *Introduction.*

The Tibeto-Burman languages in general, and Lahu in particular, are remarkable for the apparent ease with which two or more verbs may be strung together or concatenated by simple juxtaposition to form complex verb phrases.[1] Lahu verb concatenation is of considerable interest for its own sake; but it will be a major goal of this paper to show that this phenomenon also raises some very general questions concerning the interrelationship of semantics and grammar. Specifically, there is a well-defined class of cases where the evidence indicates that it is the inherent semantic features of individual verbs which actually determine the structural descriptions of concatenations.

One of the verbs in each Lahu verb concatenation is the logical head. The others stand in some sort of subordinate relationship to the head, occurring either all to the head's left, or all to its right, or, often, flanking the head on both sides. Sometimes these concatenations reach quite impressive lengths, as in the examples in Fig. 1:

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1 The present paper is based on eighteen months' fieldwork on Lahu in northern Thailand in 1965–6, and is a reworking of material to be found in Ch. IV of my dissertation, *A Grammar of the Lahu Language*, Berkeley 1967 (University Microfilms, Ann Arbor, Michigan). A much briefer version of this article was presented at the Chicago meetings of the Linguistic Society of America in Dec. 1967.

I am grateful to my colleagues Profs. W. Labov, J. Malone, W. Diver, and E. García, as well as to Messrs. Benji Wald and Robert Kirsner for a number of valuable comments and criticisms. See footnote 52.

A.	ŋà-hɨ	ğa	qɔ̀ʔ	chî	tɔ̂ʔ	pî	ve[2]	
	1	2	3	4	5	6		
		$_{V}$V	$_{V}$V	V_{h}	V_{v}	V_{v}		
		"We had-to lift (it) out again for (them)."						
		1	2	4	5	3	6	
B.	ŋà-hɨ	ta̲	yù	qai	cɨ	cɔ̂	ve	lâ
	1	2	3	4	5	6	7	8
		$_{V}$V	V_{h}	V_{v}	V_{v}	V_{v}		
		"Should we make (them) begin to take (it) away ?"						
		6	1	5	2	3	4	8

Fig. 1. Some multiversatile concatenations.

In Sentence A, the main verb chî 'lift' is preceded by two verbs, ğa 'be obliged' and qɔ̀ʔ 'repeat, do again', and followed by two other verbs, tɔ̂ʔ 'come out, emerge' and pî 'give', yielding a VP meaning roughly 'had to lift it out again for someone's benefit'. In Sentence B, the main verb yù 'take' is preceded by the verb ta̲ 'begin' and followed by three other verbs, qai 'go (away)', cɨ 'send; causative', and cɔ̂ 'be fitting, proper, right', yielding a VP meaning roughly 'ought to cause to begin to take away'.

The non-head elements in these strings are all true verbs, and can each occur alone as the only verb in a VP, though with a slightly different meaning in many cases.[3] They are members of a sizable class of Lahu verbs that are distinguished by what might be termed their 'juxtapository productivity', and which we call *versatile verbs*.[4] Those versatile verbs which occur before their verb-head (V_{h}) are called *pre-head versatiles* ($_{V}$V); those which occur after their V_{h} are the *post-head versatiles* (V_{v}). With a couple of minor and irrelevant exceptions, the class of $_{V}$V's and the class of V_{v}'s are disjoint: a given versatile verb occurs either always before or always after its verb-head.

2 For those who like their forms pronounceable, the following are the values of the Lahu tonal diacritics: Mid-tone 33 (unmarked); high-rising 45 /ˊ/; high-falling 54/ˆ/; low-falling 21 /ˋ/; very low 11 (2) /_/; high-glottal /ˆʔ/; low-glottal /ˋʔ/.

3 As we shall see, when verbs of this type occur alone in a VP, their meanings tend to be 'more concrete' than when they occur as subordinate elements in concatenations. This fact will turn out to be of considerable importance.

4 The term 'versatile' is borrowed from Y. R. Chao, who has used it to characterize the combinability characteristics of a class of elements in Chinese binomial compounds. I prefer 'versatile' to 'auxiliary', both because the class is open and quite large, and because some of its members are not at all abstract in meaning.

Lahu versatile verbs serve to provide in a uniform surface way the sort of information that in the surface grammar of languages like English is handled by a formally disparate array of subordinating devices: complementary infinitives, -ing complements, modal auxiliaries, adverbs, prepositional phrases, even whole subordinate clauses (see Fig. 2):

Comp. Infinitives:		*-ing Complements*:		*Modal Auxiliaries*:	
qɔ̂ ša	'easy to hoe'	qɔ̂ kì	'busy hoeing'	qɔ̂ cɔ̂	'should hoe'
dɔ̂ʔ ša	'easy to hit'	dɔ̂ʔ kì	'busy hitting'	dɔ̂ʔ cɔ̂	'should hit'
ta̲ qɔ̂	'begin to hoe'	qɔ̂ bɔ̀	'bored hoeing'	qɔ̂ phɛ̀ʔ	'may hoe'
ta̲ dɔ̂ʔ	'begin to hit'	dɔ̂ʔ bɔ̀	'bored hitting'	dɔ̂ʔ phɛ̀ʔ	'may hit'
Adverbs:		*Prepositional Phrases*:		*Subordinate Clauses*:	
qɔ̀ʔ qɔ̂	'hoe again'	qɔ̂ pî	'hoe for (smn)'	qɔ̂ ni	'hoe and see'
qɔ̀ʔ dɔ̂ʔ	'hit again'	dɔ̂ʔ pî	'hit for (smn)'	dɔ̂ ni ʔ	'hit and see'
qɔ̂ bà	'hoe away'	qɔ̂ yàʔ	'hoe in error'	qɔ̂ te	'do so it's hoed'
dɔ̂ʔ bà	'hit away'	dɔ̂ʔ yàʔ	'hit in error'	dɔ̂ʔ te	'do so it's hit'

Fig. 2. The gamut of English subordinating devices vs. Lahu juxtaposition.

The 'simplicity' of Lahu in this regard is highly deceptive, however. Lahu verb phrases are not thrown together in a way which is '*supra grammaticam*'.[5] On the contrary, we shall try to demonstrate that there is an exceedingly complicated though elusive grammar to be characterized here: several interlocking systems of semantic and syntactic constraints which together determine the order, the membership, the constituent structure, the meaning and the length of actual and possible concatenations.

As a foretaste of things to come, consider the by no means rare type of ambiguous concatenation represented by the examples in Fig. 3:

lɔ̀ chɛ̂	1. 'beg to be there'	ta̲ ša	1. 'begin to be easy'
	2. 'is begging'		2. 'easy to begin'
ǧa kì	1. 'have to be busy'	ga ci	1. 'help to send'
	2. 'be busy getting'		2. 'cause to help'

Fig. 3. Ambiguous concatenations.

5 As the great Sinologist H. A. Giles once maintained the Chinese language to be. "This dictionary will supply sentences without number to which grammarians will have some trouble in making their rules apply; and it is in this sense that Chinese is essentially *supra grammaticam*." *A Chinese-English Dictionary*, 2d. Ed., Paragon Book Reprint Corp., New York 1964, p. xiv.

Strings like these are ambiguous in two different though inextricably connected ways: the verbs involved may be said to have two 'meanings' each, but these meaning differences can be shown to be a function of a difference in underlying syntactic structure.[6]

2.0. *Types of multiverbal constructions.*

(This section may be skipped without much prejudice to the logic of the presentation by those who have no particular interest in the details of Lahu grammar.)

Not every sequence of verbs in Lahu (still less every sequence of morphemes each of which translates as an English verb) constitutes a true versatile concatenation. There are a variety of other multiverbal constructions in the surface grammar. These are all easily distinguishable from versatile concatenations in principle, though there are certain types of borderline cases which are problematical.

Before developing the structure of versatile concatenations, therefore, it would be well to give a brief account of the other multiverbal constructions, along with the formal and semantic criteria which serve to differentiate them.

2.1. V + P_V *sequences.*

Verb-particles (P_V's) are bound morphemes which occur in post-verbal position and serve to orient the verbal idea along one or another of several semantic dimensions, temporal, modal, aspectual, etc. Some of the P_V's cover a semantic territory which is quite comparable to that of the more abstract sort of post-head versatile verb. Of especial importance are the desiderative P_V gâ and the experiential P_V jɔ:

qai gâ	'want to go'	qai jɔ	'has ever gone'
câ gâ	'want to eat'	câ jɔ	'has ever eaten'

But the P_V's fail the requirements for verbhood: they may not constitute VP's by themselves, and they may not be preceded by the negative adverb mâ. V + P_V sequences are therefore not 'multiverbal' at all.

2.2. *Fortuitous concatenations*: lɛ-*deletion.*

Lahu verbs are said to be in *fortuitous concatenation* when they appear in juxtaposition even though they belong to separate underlying VP's. In

6 See below 4.2. These cases are to be carefully distinguished from those for which I wish to claim that it is the semantic features of the individual verbs which *determine* the syntactic structure of the concatenation. See below, 'Fore-and-aft concatenations', 6.0 *et seq.*

most cases the verbs represent a series of temporally consecutive actions. Consider the examples in Fig. 4:

A.	dôʔ 'to pack up' and pû 'to carry on the back'	
	à-e cà-qha dôʔ pû və lɛ	'mother packed up the rice
	V_h V_h	and carried it out . . .'
B.	kə 'to put in' and khû 'to break, shatter'	
	hɔ khi-šɛ yù kə khû lɛ	'he took the elephant's foot, put
	$V_h V_h$	it in (the tub), and it broke . . .'
C.	pôʔ 'to jump', chèʔ 'to bite', and câ 'to eat'	
	lâ pôʔ chèʔ câ pə̀ šę ve cê	'The tiger jumped (on them),
	V_h V_h V_h	bit into (them), and ate (them) all up.'

Fig. 4. Fortuitous concatenations.

Fortuitous concatenations of this type are best regarded as having been generated by a transformational deletion of the suspensive particle lɛ[7] from between the verbs in series. It is the function of lɛ (like that of the Japanese -TE form or the Sanskrit 'gerund' in -tvā, etc.) to indicate that the preceding clause is *not the last* in a series of clauses. (A Lahu 'clause' consists of a VP plus one or more preceding, 'associated' NP's.) It is always grammatical, and it does not change the meaning, to reverse the effect of the transformation by 'reinserting' lɛ between each pair of fortuitously concatenated verbs:

C′. lâ pôʔ lɛ ‖ chèʔ lɛ ‖ câ pə̀ šę ve cê
V_h V_h V_h

To insert lɛ between two verbs in versatile concatenation, on the other hand, either renders the construction unintelligible or completely changes the meaning by making two VP's out of the previous single one,[8] as in Fig. 5.

It is a complicated matter to specify precisely the conditions under which the lɛ-deletion transformation may operate, and it would be beyond the

7 lɛ is, technically, a 'non-final unrestricted particle' (P_{Unf}); 'unrestricted' because it occurs after both nouns and verbs, 'non-final' because it occurs post-verbally only in non-final clauses of compound sentences. See Matisoff, *op. cit.*, Ch. II, pp. 65–69.

8 An exception is a certain type of V_v of resultative meaning, which *when negativized* may sometimes be preceded by lɛ with only a slight change of meaning. See below 2.4.

qai 'to go' and bɔ̀ 'be lazy; be tired of'	
qai bɔ̀ (vers. concat.)	'be tired of going'
V_h V_v	
qai lɛ bɔ̀ (VP's in series)	'having gone, become lazy; went and
V_h V_h	(after he got there) was lazy'

Fig. 5. Insertion of lɛ in versatile concatenations.

scope of this paper to attempt to do so.[9] Suffice it to say that only a relatively small proportion of permissible $Clause_n$ + lɛ + $Clause_{n+1}$ sequences may undergo the transformation: in particular, those where $Clause_{n+1}$ contains nothing before the VP (that is, no 'associated NP's'), and nothing in its VP before the V_h (that is, no adverbs, not even the negative mâ, and no pre-head versatiles). Further conditions are that the underlying subject of each of the clauses must usually be the same (but see example B above), and that none of the verbs in the concatenation may be a V_{adj}.

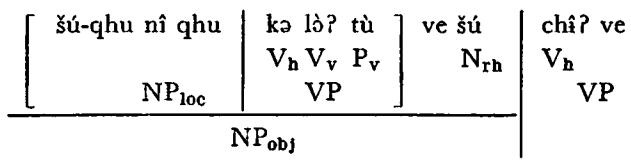
2.3. *Fortuitous concatenations arising from deletions of other types.*

Sometimes verbs come to stand in surface juxtaposition as the result of a long and tortuous transformational history. Consider the following example:

šú-qhu nî qhu kə lɔ̀ʔ chîʔ ve	"He rolls enough (tobacco)
V_h V_v V_h	6 5
1 2 3 4 5 6	to put-into two pipes."
	4 2,3 1

The clause šú-qhu nî qhu kə lɔ̀ʔ 'enough to put into two pipes', consists of the V_h kə 'put into' followed by the post-head versatile verb lɔ̀ʔ 'enough', and preceded by the associated NP šú-qhu nî qhu 'two pipes'. This whole clause derives from an object NP associated with the main verb chîʔ 'to roll up, crumple'. This object NP originally consisted of a relative clause modifying the noun 'tobacco' ('tobacco that is sufficient to put into two pipes'), thus:

9 A prerequisite to the task would be a solution to the immensely difficult problem of specifying the conditions under which clauses may be conjoined by lɛ in the first place. For example, if the underlying subject of each of the clauses is the same, certain selectional restrictions obtain among their verbs: the semantic features of each successive pair of verbs must be 'consecutively congruent'. Thus 'jump-bite-eat' is a consecutively congruent series, while *'die-sleep-jump' is an 'incongruous' one.



The 'universal particle' (P_{univ}) ve here serves as the relative marker connecting the preceding relative clause to the following 'relative-head' (N_{rh}) šú 'tobacco'. The aspectual P_v tù indicates that the action of a preceding verbal nucleus is hypothetical, purposive, future, or otherwise non-actual.

The operation of several interrelated deletion transformations whose precise formulation does not concern us here[10] has the ultimate effect of erasing the morphemes tù ve šú from the string, thus accidentally bringing the verbs of the relative clause into juxtaposition with the verb of the main clause.

That this is not a case of simple lɛ-deletion is immediately obvious from the extralinguistic fact that the action of putting in the tobacco is not temporally prior to the action of rolling it up.

2.4. *Resultative complements* (C_r's).

An important type of binomial verbal construction consists of a main verb followed by a secondary verb of resultative meaning which serves to indicate the successful or non-successful completion of the action of the former.[11]

In some cases the resultative verb has a meaning which is quite general, enabling it to occur after relatively large numbers of main verbs. Resultatives of this sort are therefore to be regarded as nothing more than a subtype of the post-head versatile verbs (see below 4.123). The V_v cí 'to V_h so it sticks, V_h firmly' is typical:

jû? cí 'to stab home (so that the knife remains in the wound)'
bɔ̂? cí 'to shoot home (as of an arrow which is made to stick in the target)'
thɔ̂? cí 'to hook fast onto; to hold fast to with a curved object'

Fig. 6. Resultative V_v's.

10 The 'Deletion of relative head Transformation', followed by 've-Ellipsis after tù' and 'Purposive tù-deletion'. See Matisoff, *op. cit.*, 6.2, pp. 597 *et seq.*

11 Similar constructions are encounted throughout the Sino-Tibetan family, as well as in Tai. Cf. the Mandarin jiann and the Thai hěn, both referring to the results of an effort of visual perception.

In other cases, however, the resultative verb may occur after only one or two specific V_h's. Thus tò? 'to catch fire' appears after no other verb than tú 'to kindle'; dɔ 'to fit inside' occurs only after the verbs kə 'to put into' and dô? 'to pack into'; mi 'to catch' occurs only after ğà? 'to chase'. These resultatives are anything but 'juxtapositorily productive', and may therefore be excluded summarily from the class of versatile verbs. They are best characterized as 'resultative complements (C_r's)'.

Given that the C_r's are closely wedded to particular V_h's, it might seem attractive to consider $V_h + C_r$ sequences as a type of lexical compound. But this is impossible because of the different behavior of the two constructions under negation. The negative adverb mâ may never intervene between the elements of a compound, but must always precede the first element; in resultative constructions, on the other hand, mâ may always be introduced directly before the C_r.[12] Thus,

tú mâ tò?	'does not catch fire'
kə mâ dɔ	'does not fit into'
ğà? mâ mi	'does not catch'

Most members of the class of C_r's, in fact, *never* occur after a main verb without an intervening mâ:

V_h	C_r (neg)	$V_h + C_r$ (neg)	
qai 'go'	gà 'reach, arrive'	qai mâ gà	'does not arrive; doesn't make it there'
te 'do'	là 'come'	te mâ là	'cannot do; does not get to do'
phɔ 'flee'	pò 'escape, reach safety'	phɔ mâ pò	'flees unsuccessfully; gets caught trying to escape'
ma̲ 'teach'	ši̲ 'know, understand'	ma̲ mâ ši̲	'cannot learn; has a thick skull'
ca̲ 'feed'	câ 'eat'	ca̲ mâ câ	'is unable to eat'

Fig. 7. Obligatorily negativized C_r's.

12 On rare occasions the mâ may precede the V_h, yielding a resultative construction with a subtly different meaning. The same is true of the variable position of mâ in certain post-head versatile concatenations.

Occasionally a negative resultative construction is split up into two separate VP's by the insertion of a particle: either the suspensive P_{Unf} lɛ 'and' or the concessive P_{Unf} kàʔ 'even'. Thus:

tú lɛ mâ tòʔ '(someone) lit it, and (it) didn't catch fire'
tú kàʔ mâ tòʔ 'even though (someone) lit it, it didn't catch fire'

The subjects of the V_h and of the resultative verb are now different. Interestingly enough, versatile verbs of resultative meaning lend themselves to a similar splitting from the main verb when negativized:

jûʔ lɛ mâ cí '(someone) stabbed it, but
(the knife) did not stick (in it)'

2.5. *Lexical compounds.*

Lexical compounds whose elements are both free verbs are common in Lahu:

nù 'to stink' + qhâ 'be bitter': nù-qhâ 'have a bitter stink; be acrid'
phɛ 'to restrain' + chìʔ 'to bind' : phɛ-chìʔ 'to tie up'
chî 'to lift' + mu 'be high' : chî-mu 'to praise, extol'

It is usually quite easy to distinguish such compounds from versatile concatenations. Neither of the elements in a true compound is juxta-productive; each occurs in at most a few compound-combinations with verbs of compatible semantic nature. Compounds once established acquire the status of unitary lexical items. It is as difficult to invent a comprehensible and acceptable Lahu compound as it is to create any neologism. Binary versatile concatenations, on the other hand, are freely 'inventable'. Novel combinations of particular V_h's with particular versatile verbs are generally not even recognized to be such, so readily interpretable are they.

Furthermore, compounds are exclusively binomial, and the order of the elements may never be reversed. But versatile concatenations often contain two or more versatile verbs in addition to the V_h, and in certain of these cases two of the versatiles may be permuted with corresponding change of meaning, as we shall see. Finally, neither the negative mâ nor verb-particles may ever intervene between the elements of a compound; both may occur within post-head versatile concatenations under certain conditions.

Very occasionally, however, we encounter a pair of verbs which seems to constitute a borderline case, having properties characteristic of both compounds and versatile concatenations:

2.51. *'Idiomatic' concatenations.*

In this situation one verb of the pair is indisputably versatile, but the meaning of the pair is not deducible from those of the 'V_h' and the 'versatile' verb. Thus pɔ 'to be born' joins with the V_v ša 'be easy; easy to V_h, pleasant to V_h' to form the verb pɔ-ša 'rich, well-off, prosperous'.

Similarly,

na 'to listen'	+ ni	'to look at; to V_h and see; try V_h'ing'	→ na-ni 'to ask a question'
chî 'to lift'	+ bà	'to throw; to V_h away, to V_h off'	→ chî-bà 'to discard, abandon, reject'

Verb sequences of this type are to be regarded as ordinary compounds, with whose syntactic behavior they entirely agree.

2.52. *'Restrictedly versatile' concatenations.*

Harder to evaluate is the case of the verb câ 'eat'. câ is sometimes an undoubted post-head versatile, with the abstracter meaning 'to V_h for a living; to earn one's bread by V_h'ing', as in mì câ 'to earn one's living farming', hô câ 'sell for a living', etc.

However, to a certain number of verbs relating to the preparation of food, or to the killing of an edible animal, câ may be directly juxtaposed with its concrete meaning 'to eat'. Thus:

cá câ	'to boil and eat; boil for eating'
pì câ	'to roast and eat; roast for eating'
bɔ̂ʔ câ	'to shoot and eat; shoot for eating'

These sequences are like compounds in that the possible partners of câ are restricted to a narrow semantic range; they are like fortuitous concatenations in that the two verbs represent temporally successive actions, but unlike them in that it is not possible to insert lɛ between the elements; and they are like versatile concatenations in that a) the verbs which may precede câ in this construction are actually considerable in number (Lahu happens to abound in verbs relating to the preparation of food), and b) the meaning of each sequence is easily predictable from the sum of its parts.

On balance, we must consider the concrete-câ strings to be versatile concatenations. As we shall see, some versatile verbs are much abstracter

than others; this fact is of crucial importance to an understanding of the whole concatenative process.

Let us proceed to examine the inner workings of the three general types of versatile concatenations: pre-head ($_vC$), post-head (C_v), and 'fore-and-aft' ($_vC_v$).

3.0. *Pre-head concatenations* ($_vC$'s).

The simplest $_vC$'s are binary, with a single pre-head versatile verb preceding the V_h. Let us use "β" to symbolize the 'verbal nucleus' of a Lahu VP: that is, the obligatory V_h plus any versatiles that may optionally be juxtaposed to the head.[13] We may then generate binary $_vC$'s by some such rule as the following schematic one:

Rule 1. $\beta \rightarrow (_vV) + V_h$

Consider these examples:

qɔ̀ʔ ni 'look at again'	qɔ̀ʔ yù 'take again'	qɔ̀ʔ hɔ̀ 'cry again'
g̃ɔ̀ ni 'clap eyes on'	g̃ɔ̀ yù 'grab'	g̃ɔ̀ hɔ̀ 'sob'
t̲a ni 'begin to look'	t̲a yù 'begin to take'	t̲a hɔ̀ 'begin to cry'
qhɔ̂ ni 'sneak a look'	qhɔ̂ yù 'take surreptitiously'	qhɔ̂ hɔ̀ 'cry in secret'

Fig. 8. Binary $_vC$'s.

The versatile verb is in a subordinate, modifying relationship to the head on the right. This 'right-headedness' of $_vC$'s becomes very obvious if we consider permutations of binary concatenations consisting of two verbs *both* of which belong to the class of $_vV$'s, as in the following examples:

qhɔ̂ phôʔ 'assemble secretly'	lɔ̀ t̲a 'ask to begin'
$_vV$ V_h	$_vV$ V_h
phôʔ qhɔ̂ 'steal in a group'	t̲a lɔ̀ 'begin to ask'
$_vV$ V_h	$_vV$ V_h

Fig. 9. Permutations of two pre-head versatiles.

In such cases, each verb of the pair is the head of the construction when it appears second, but is the $_vV$ when it appears first. Thus, as main verbs,

13 The verbal nucleus β may itself be preceded by an adverbial phrase and followed by verbal- and/or unrestricted particles, thus: $VP \rightarrow (AP) + \beta + (P_V) + (P_U)$.

qhɔ̂ means 'to steal' and phô? means 'to assemble, pile up', but as $_{v}$V's they mean 'to V_h stealthily' and 'to V_h in a group', respectively.

As an anchor for further discussion, we now list the twelve most important pre-head versatiles and their meanings. Of especial interest is the relationship between the head-meaning and the versatile-meaning of each member of the class:

Verb:	*Meaning as a* V_h:	*Meaning as a* $_{v}$V:	*Examples*:
a. ğɔ̀[14]	'to pull, drag, yank'	(used simply to enliven the V_h)	ğɔ̀ tú 'set something the hell on fire' ğɔ̀ ğà?-yù 'chase vigorously' ğɔ̀ bɔ̂? 'shoot with élan'
b. ğa[15]	'to get, obtain, catch'	1. 'have the chance to V_h; get to V_h' 2. 'must V_h'	ğa mɔ̀ 'get to see; meet, find' ğa pî 'must give' ğa ğɔ 'must read; get the chance to read'
c. qɔ̀?	'to go back, return'	'to V_h again; to V_h also'	qɔ̀? ğɔ 'read again' qɔ̀? qai 'go again' qɔ̀? cɔ̀ 'have also, have as well'
d. ta̲	'to begin'	'to begin to V_h'	ta̲ ğɔ 'begin to read' ta̲ hɔ̀ 'begin to cry' ta̲ yɔ 'begin to speak'
e. ca	'to look for, go and seek'	'to go and V_h'	ca gâ 'go and visit' ca hɔ̂ 'go and sell' ca bɔ̂? 'go and shoot'
f. ga	'to help'	'to help to V_h'	ga chî 'help to lift' ga ğɔ 'help to read' ga thu 'help to chop down'

14 Much less commonly the verb lɔ̀? 'enter' may also be used as an enlivening $_{v}$V. The highly colloquial usage of a morpheme gâ?, probably to be identified with the verb meaning 'to scratch', as an enlivener requires further investigation.

15 There is a homophonous post-head versatile (Caudal subclass) with the meaning 'able to V_h', which is clearly related. Shan influence may well be involved here. How else is one to explain the astonishing parallel between ğa and, for example, the Central

Verb:	*Meaning as a* V_h:	*Meaning as a* $_vV$:	*Examples*:
g. phôʔ	'to assemble; gather together; pile up'	'to V_h in a group; V_h together'	phôʔ yìʔ 'sleep together' phôʔ ca 'look for together' phôʔ ɡ̈ɔ 'read together'
h. qhɔ̂	'to steal, rob'	'to V_h sneakily or secretly'	qhɔ̂ na 'listen on the sly, eavesdrop' qhɔ̂ ɡ̈ɔ 'read in secret' qhɔ̂ lòʔ 'enter stealthily'
i. cí[16]	'to stick to, adhere'	'to V_h incessantly'	cí câ 'eat incessantly' cí ma̲ 'teach all the time' cí lɔ̀ 'beg incessantly'
j. lɔ̀	'to ask for'	'to ask to V_h; beg to V_h'	lɔ̀ câ 'ask (for something) to eat' lɔ̀ ɡ̈ɔ 'ask to read' lɔ̀ phɛ̂ 'ask to be set free'
k. yù	'to take'	'to take and V_h; pick up something and V_h it'	yù bà 'take and throw away' yù ɡ̈ɔ 'take up and read' yù hîʔ 'take and shake'
l. gu	'to fix, repair; revise; prepare'	'to re-V_h better than before; to V_h over again'	gu bùʔ 'write better than before; rewrite' gu chìʔ 'tie better than before; retie' gu ha 'winnow better than before'

3.1. *Multiversatile pre-head concatenations.*

The most interesting $_vC$'s are those which are 'multiversatile'; that is, those which contain more than one $_vV$. These are generable, in a crude

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Thai auxiliary verb dâj, which means 'get to V_h' when it occurs *before* the V_h, but 'able to V_h' when it comes *after* the V_h?

16 cí also occurs as a post-head versatile meaning either 'to persist in V_h'ing' or, resultatively, 'to V_h so it sticks; to V_h permanently'.

and schematic way,[17] by adding the following optional, recursive rule to the grammar:

$$\text{Rule 2. } V_h \xrightarrow[\text{opt}]{} {}_vV + V_h$$

Consider the following example, containing not less than four pre-head versatiles:

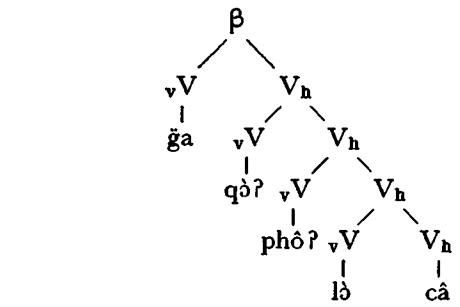

Fig. 10. A multiversatile $_vC$.

Each verb or verb-sequence to the right of a given verb functions as the latter's head. The most deeply embedded of the $_vV$'s, lɔ̀, is subordinate to its head câ —the act of begging is secondary to its envisaged goal, eating: 'beg to eat'. lɔ̀ câ as a whole is the head of phôʔ: the 'begging to eat' is performed 'together'. phôʔ lɔ̀ câ as a whole is the head of qɔ̀ʔ: the action of 'together begging to eat' is performed 'again'. Finally, the string qɔ̀ʔ phôʔ lɔ̀ câ as a whole is the head of ğa: it is the 'repetition of the communal act of supplication to relieve hunger' which is deemed to be 'necessary'.

Exhaustive elicitation has shown that this analysis, so far as it goes, truly reflects the way in which the Lahu understand pre-head concatenations.

It might well be objected at this point that what is actually involved is a nesting of embedded *sentences*, with each verb in the concatenation deriving ultimately from a separate underlying sentence. For a variety of reasons I find that approach cumbersome for the present purpose.[18] But

17 Constraints of order and selection have yet to be specified.

18 It would require a great clanking of generative machinery: obligatory deletions of dummy NP 'subjects', rules specifying that no adverbs or particles may occur in any of the underlying sentences but the one underlying the V_h, etc.

note that it does not really affect the substance of the argument at all whether one operates with embedded sentences or simply embedded verb-strings. In either case we are still faced with the problem of stating the very complex restrictions on the concatenative process, the nature of the hierarchical relationship among the concenated entities, etc.

3.12. *Syntactic-semantic constraints on multiversatile* $_{v}$C's.

When more than one $_{v}$V occurs in the same concatenation, careful elicitation has shown that they must be strictly ordered in conformity with a rule which may be graphically summarized as follows:

ğò	ğa[19]	qò?[19]	ta̲	ca	ga	phô?	qhô	cí	lò yù	gu	V_h

Fig. 11. Pre-head order rule.

Thus, for example, phô? must precede lò, but must follow ğa or qò?.

This ordering is anything but arbitrary from the semantic point of view. Although semantic theory has not developed to the point where a rigorous characterization of the notion of 'abstractness' is possible, it should be intuitively obvious from a perusal of the concatenation-glosses listed above (3.0) that all of the $_{v}$V's are not on a par in this regard: a few have meanings which are much more general or abstract than others. Even an *a priori* semantic subclassification of the $_{v}$V's according to the English gloss would yield a scheme not far different from the following:

A. Enlivener:	ğò
B. Aspectuals:	ğa 'must' (obligative); qò? 'again' (iterative); ta̲ 'begin' (inceptive)
C. Specifics:	ca 'go and'; ga 'help to'; phô? 'together'; qhô 'stealthily'; cí 'incessantly'; lò 'ask to'; yù 'take and'; gu 'fix and'

Fig. 12. Semantic sub-types of pre-head versatiles.

The correlation between the syntactic and semantic properties of these verbs is striking: the more abstract, general, or 'aspectual'[20] $_{v}$V's occur

19 The behavior of ğa and qò? with respect to the order rule is of particular interest: they may occur in *either* order unless a third $_{v}$V follows, in which case ğa must precede. See below.

20 It is easy to find labels for the 'aspectual' $_{v}$V's which correspond to categories existing in languages with aspectual systems *proprement dits*, as 'iterative', inceptive', etc.

to the left of those which have a more concrete, specific, or 'marked' semantic content. That is, *the more abstract the* $_{v}V$, *the less intimate its connection with the* V_h. The more concrete $_{v}V$'s are attracted centripetally to the head, forming compound heads to which abstracter versatiles may stand in a subordinate, modifying relationship. The verb ğò is the extreme case. As a main verb it means 'pull' or 'yank', but as a $_{v}V$ it functions merely to make more vivid the force of the VP. It is the loosest and semantically most empty $_{v}V$ of them all, and thus always occurs first in any concatenation in which it appears.

It might here be objected that we have stacked the semantic deck a little in our subclassification above, simply to bring the semantic sub-types in line with the distributional data. Why could one not, for example, give phôʔ 'together' a fancy aspectual name, say, 'comitative', and include it among the Aspectuals?

But the English glosses are, of course, beside the point, since they are at best but crude approximations to the Lahu meanings. To set up semantic sub-classes on such a basis would be worse than useless in elucidating the way in which the Lahu actually understand concatenations. It is not that our semantic classification has been artificially 'influenced' by the order-properties of the $_{v}V$'s. I am claiming rather that these order-properties—which are irreducible facts of Lahu grammar—cannot be divorced from certain inherent semantic features of the individual verbs, and are in fact merely the manifestation of those features.[21]

We view the $_{v}V$'s, then, as being situated along a continuum of abstractness from left (abstracter) to right (concreter). At one point along this continuum there is further syntactic evidence for demarcating the Enlivener and the Aspectuals on the one hand from the Specifics on the other: the four verbs of the former two classes (ğò, ğa, qòʔ, ta) are the only $_{v}V$'s that may occur in $_{v}C$'s whose V_h is an adjective (V_{adj}).[22]

Exs. ğò chu 'be mighty fat' ğa chu 'must be fat'
qòʔ chu 'be fat again' ta chu 'begin to be fat'

But not, e.g., *phôʔ chu 'be fat together'

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21 I see no circularity in maintaining that although we can arrive at a conception of the underlying semantic properties only on the basis of induction from syntactic data, it is these very properties which *determine* the syntactic behavior in question.

22 Lahu V_{adj}'s are distinguishable from action verbs (V_{act}) on several grounds, chiefly co-occurrence relationships with verb-particles. The V_{adj}'s occur before many fewer P_V's than do V_{act}'s; in particular, adjectives do not occur before imperative P_V's.

This behavior is also, it seems to me, to be explained in terms of the abstract/concrete parameter. Adjectives in Lahu (perhaps in languages in general?) tend to be highly concrete and specific, highly marked in meaning; so much so that their semantic features would be selectionally incompatible with any but the abstractest $_{v}$V's.

We have already noted (Footnote 19) that the aspectual $_{v}$V's ğa 'must' and qɔ̀ʔ 'again' may occur in either order relative to each other (unless a third $_{v}$V follows in the same $_{v}$C). The Lahu do not feel there is any discernible meaning difference between, say, qɔ̀ʔ ğa câ and ğa qɔ̀ʔ câ:

$_{v}$V $_{v}$V V$_{h}$ $_{v}$V $_{v}$V V$_{h}$

they are both translatable as 'must eat again'. Notice that simply according to the principle of rightward-headedness there is a theoretical difference in meaning between these two concatenations. Thus, qɔ̀ʔ—ğa câ would mean 'again—must eat': that is, there are at least two separate instances of obligation involved. ğa—qɔ̀ʔ câ, on the other hand, would mean 'must—eat again': that is, having eaten before, of one's own free will perhaps, one is now for the first time, actually *obliged* to repeat the action. Be that as it may, the distinction is far-fetched from the Lahu point of view. We would say that, for the Lahu, ğa and qɔ̀ʔ have, in this environment, abstraction-values which are identical for all practical purposes. They are therefore not hierarchically ordered, but rather coordinate in their subordination to the V$_{h}$.[23]

3.13. *Recasting* $_{v}$C's *to achieve alternative hierarchical structures.*

Suppose a Lahu desires to produce a multiversatile utterance containing the semantic components of several $_{v}$V's, but in which these components stand in a hierarchical relationship to each other that is different from that prescribed by the order rule. Thus, to return to the example in 3.1, there is no difficulty in producing via simple concatenation a sentence meaning, "We again ask together to eat it." But how would one say, for instance, "We ask to eat it together again"—that is, where it is the eating that is performed together rather than the asking? The answer, as indicated in Fig. 13, is that in such cases the sentence must be partially recast, typically by breaking up the concatenation into two pieces, nominalizing one of the pieces, and embedding it as the object of the other piece.

Thus only sentence A is directly generable as a single concatenated VP, containing the three $_{v}$V's qɔ̀ʔ 'again', phôʔ 'together', and lò 'ask to', in

23 We shall return to this concept of co-ordinate subordination in our discussion of certain fore-and-aft concatenations, below 6.14.

A. ŋà-hɨ qɔ̀ʔ phôʔ lɔ̀ câ ve $_{v}V$ $_{v}V$ $_{v}V$ V_h	'We again ask together to eat it.'
B. ŋà-hɨ [qɔ̀ʔ phôʔ câ ve] thàʔ lɔ̀ ve $_{v}V$ $_{v}V$ V_h P_n V_h	'We ask to eat it together again.'
C. ŋà-hɨ [phôʔ câ ve] thàʔ qɔ̀ʔ lɔ̀ ve $_{v}V$ V_h P_n $_{v}V$ V_h	'We again ask to eat it together.'
D. ŋà-hɨ [qɔ̀ʔ câ ve] thàʔ phôʔ lɔ̀ ve $_{v}V$ V_h P_n $_{v}V$ V_h	'We ask together to eat it again.'

Fig. 13. Recasting of $_{v}$C's.

that order. In Sentence B, lɔ̀ is not part of the concatenation, but is the V_h of the matrix sentence. Only the $_{v}$V's qɔ̀ʔ and phôʔ remain before their V_h câ 'eat', and this smaller concatenation as a whole is nominalized by the P_{Univ} ve and followed by the accusative noun-particle thàʔ so that it functions as the object of lɔ̀. What do we ask (for)? 'We ask—to eat it together again.' In Sentences C and D, only one $_{v}$V remains before câ in the embedded sentence, while the other appears as a $_{v}$V subordinate to lɔ̀, forming another $_{v}$C in the matrix sentence. Thus Sentence C answers the question 'What do we ask (for) again?', while D answers the question 'What do we ask (for) together?'

Only Sentence A reflects the unmarked hierarchical order of the concepts embodied in its verbs.

3.14. *Selectional restrictions on multiversatile* $_{v}$C's.

There is so far nothing stopping us from generating monstrous $_{v}$C's containing up to twelve verbs. Yet no Lahu in my hearing (or I suspect in anybody else's either) has ever spontaneously produced a $_{v}$C with more than four $_{v}$V's.[24] To attempt to account for this in terms of a competence vs. performance dichotomy would be to seriously miss the point, however. Selectional affinities and exclusions are nothing more than compatibility-relationships among semantic features. If it is, as we claim, precisely the inherent semantic features of individual verbs which determine the syntactic properties of concatenations,[25] it follows that a system of categorical selectional constraints must be built into the competence model itself in order

24 Though to be sure, if he were pressed enough, or given a far-fetched enough context, or encouraged to use pencil and paper — and providing the concatenation contained no *post-head* versatiles to complicate the picture — he might squeeze out one or two more.

25 Persuasive evidence for this claim will be brought forth in the discussion of fore-and-aft concatenations, below 6.0–6.4.

to preclude the generation of unacceptable concatenations: those of uninterpretable or over-complex structure.

Relatively few pairs of $_{v}$V's are mutually exclusive even in the absence of a third $_{v}$V. Only ğò and ta̲, ga and cí, and yù and lò may not co-occur before a V_h under any circumstances.[26] When a third $_{v}$V is to be added, the restrictions become more severe: e.g., of both ta̲ and ca or both ğò and ca are chosen, *no* third $_{v}$V may occur. The options are still more restricted when it is a question of adding a fourth $_{v}$V: e.g., after many sequences like ğa ta̲ qhô, qò? ca ga, ta̲ phô? cí, etc., *no* fourth $_{v}$V may ensue. Further cramping one's concatenative style are selectional constraints deriving from the semantic features of the particular *verb-head* and/or from any *post-head* versatiles that the concatenation may include.

It would not be profitable to attempt to spell out all these restrictions in anything like an exhaustive manner, particularly since many of them are properly to be characterized in terms of 'asymptotically decreasing probabilities' rather than absolute exclusions. For the moment we simply observe that the more concrete, specific, or marked the semantic content of a versatile verb is, the less readily it participates in lengthy concatenations. In the context of pre-head concatenations, this means that it is quite common to find more than one 'aspectual' $_{v}$V in a given concatenation, but relatively much rarer to find more than one 'specific' $_{v}$V.

3.2. *Negation of* $_{v}$C's.

In general nothing may intervene between a $_{v}$V and its V_h, or between one $_{v}$V and another.[27] In particular, the negative adverb mâ must always be introduced before the first $_{v}$V in a $_{v}$C, thus:

mâ	ğa	gu	bù?	'does not have to re-write'
Adv	$_{v}$V	$_{v}$V	V_h	

It is interesting to note that concatenations containing the Enlivener ğò may not be negated. This suggests that the 'enlivening' feature contributed by ğò is something like [+positive action].

4.0. *Post-head concatenations* (C_v's).

The post-head versatiles (V_v's) are a much more numerous class than the $_{v}$V's—there are several dozen of them in common use—but they divide

26 It was convenient to build only the yù-lò exclusion into the order chart, above.

27 Post-head concatenations are quite different in this regard. Both negative mâ and a number of verb-particles may be inserted at certain points within C_v's, though this is of little relevance to the argument of our paper.

themselves fairly neatly on the basis of distributional and semantic criteria into four great sub-classes: Juxtacapitals, Medials, Caudals, and Variables. Members of these classes co-occur in multi-versatile C_V's in the order indicated in the following chart:

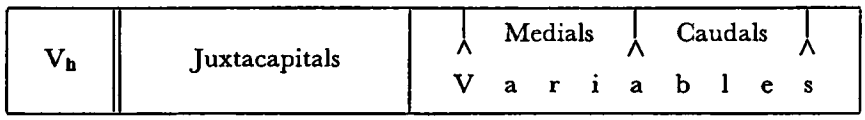

Fig. 14. Order of sub-types of post-head versatiles.

As is the case with the pre-head versatiles, there is a strong correlation between the semantic features characteristic of each subclass of V_V's and the relative position of that class in multiversatile concatenations:

The *juxtacapitals*, as the name implies, always occur directly after the head. They number about twelve, and all have highly concrete meanings related to modes of motion or directionality. As might be expected, the juxtacapitals are all mutually exclusive with one another. They are as closely welded to the V_h as are such English 'particles' as *out* or *away*.

The *medials* are the most numerous and semantically heterogeneous of the subclasses. They have highly specific meanings, like 'late', 'dare', 'busy', 'easy', etc., and, like the juxtacapitals, are mutually exclusive (with a few trivial and far-fetched exceptions). The class is open, and includes several Shan loanwords.

The *caudals* are a small but important class of versatiles of very abstract meaning that occur at the tail-end of C_V's. More than one caudal may appear in a given concatenation, though this is rare. The meanings of three members of the class relate to modes of ability or potentiality.

The *variable* subclass of V_V's is in many ways the most interesting. Their meanings are so abstract that they resemble aspectual particles. They enjoy the greatest concatenative freedom of any versatile verbs, and may occur either before or after medials or caudals, as well as either before or after other variables. However, each of the alternative orderings determines a different hierarchical arrangement of the semantic components of the concatenated verbs.[28]

One indication of the greater abstractness of the caudals and versatiles, as opposed to the juxtacapitals and medials, is that many members of the former two classes may occur in concatenations whose V_h is a V_{adj}, though no juxtacapital or medial may.

28 This is entirely consistent with maintaining that the very fact of the variable versatiles' order-variability is a *consequence* of the abstractness of their meanings.

We proceed to a more detailed discussion of each of the four subtypes of V_v's, at first confining ourselves primarily to concatenations containing only a single post-head versatile.

4.1. *Binary post-head concatenations.*

Concatenations comprising a single V_v are generable by some such rule as the following:

Rule 3. $\beta \rightarrow V_h + (V_v)$,

where the V_v is unspecified as to subclass.

4.11. *Binary* C_v*'s with juxtacapitals.*

Verb:	*Meaning as* V_h:	*Meaning as* V_v:	*Examples*:	
a. kə	'to put into, insert; to be inside'	'to V_h into'	jûʔ kə	'impale' ("stab into")
			mìʔ kə	'blow into'
			càʔ kə	'push into'
			thèʔ kə	'kick into'
b. lòʔ	'to enter'	'to move into in the manner of the V_h'	ǧî lòʔ	'run into'
			pa̲i lòʔ	'fall over into'
			ce lòʔ	'fall down into'
			šɛ lòʔ	'lead into'

lòʔ differs slightly from kə in that it only occurs after V_h's which are themselves verbs of motion.

c. tɔ̂ʔ	'to come out; to appear'	'to V_h out; to V_h so something comes out'	ǧɔ̀ tɔ̂ʔ	'pull out; pull apart'
			ní tɔ̂ʔ	'squeeze out'
			chî tɔ̂ʔ	'lift out from'
			ší tɔ̂ʔ	'twist out'

This verb sometimes has a quasi-resultative meaning. See 4.123.

d. là	'to come'	'to come in order to V_h'	qa-mɨ̀ là 'come to sing'
			nàʔ-ú te là[29] 'come to chat'
			ca gî là[30] 'come to visit'

Versatile là is to be distinguished from the morphophonemically related 'cisative P_v' la, which means 'to V in this direction; to V hither'.

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29 nàʔ-ú, probably to be considered a noun meaning 'conversation', occurs only with the verb te 'do', forming a complex verbal expression meaning 'to chat sociably'.

30 In this example the V_h gî is preceded by the pre-head versatile ca, which indicates purposive motion. See the remark under qai.

Verb:	*Meaning as* V_h:	*Meanings as* V_v:	*Examples*:
e. qai	'to go'	'to go and V_h; to V_h away from (the center of interest)'	lę̱-gî qai 'go and play' yù qai 'take away' mɛ́ qai 'vanish away; disappear' jû qai 'go walking; walk away'

qai is also a member of the variable subclass, where it has a much abstracter continuative or inchoative meaning: 'to go on V_h'ing; to start to V_h'. See below 5.1.

All of the juxtacapitals, but especially qai and là, have a special affinity for the $_vV$ of purposive motion, ca. That is, fore-and-aft concatenations of the form ca + V_h + V_{juxt} are very frequent. This sort of fact is of great interest in the context of the problem of assigning constituent structure to fore-and-aft concatenations. See below 6.141.

f. yà?	'to go down, descend'	'toV_h down'	pû yà? 'carry down (on the back)' lwɛ̂ yà? 'swim down (stream)' pu yà? 'roll down' pɔ̂? yà? 'jump down'

This verb should be distinguished carefully from the unrelated but homophonous medial V_v 'to V_h by mistake'.

g. tâ?	'to go up; to climb'	'to V_h up(ward)'	pû tâ? 'carry up (on one's back)' dû tâ? 'dig upward' cɔ tâ? 'circle upward, spiral upward' jâ? tâ? 'sneak upward'
h. qo̱	'to send back'	'to V_h something back (from a distance)'	yù qo̱ 'bring back' chî qo̱ 'carry back (in hand)' ši̱ qo̱ 'lead back' tâ? qo̱ 'carry back (shoulders)'

qo̱ is quite rare as a main verb, occurring chiefly in the expression qhɛ̂ qo̱ 'to defecate' (lit., "send back excrement"). It clearly belongs to the same word-family as the verb qò? 'to return home', as well as the $_vV$ qò? 'to V_h again' and the V_v qhò? (see next verb in this list).

Verb:	*Meaning as* V_h:	*Meaning as* V_v:	*Examples*:
i. qhɔ̀ʔ	'to bring back; take back'	'to V_h back'	hâʔ qhɔ̀ʔ 'get sthg back' bùʔ qhɔ̀ʔ 'write back' bà qhɔ̀ʔ 'throw back' te qhɔ̀ʔ 'do in return; do in reprisal'

qhɔ̀ʔ means 'back' in the sense of 're-establishing a status quo' or 'reciprocating the action' of the V_h, not 'back' in the spatial sense of qo.

j. bà	'to throw; to discard'	'to V_h away; to V_h so it falls over or is otherwise displaced'	tú bà	'burn away; burn up to get rid of'
			thêʔ bà	'kick over'
			thu bà	'chop down; chop away'
			chèʔ bà	'bite away'
			qhèʔ bà	'chip away'
k. ce	'to fall (from a height)'	'to V_h downward; V_h so it falls from a height'	ši ce	'lead downward'
			bôʔ ce	'shoot down'
			ğàʔ ce	'drive downward'
			bà ce	'throw down'

ce implies more force or violence in the downward motion than does yàʔ (f. above). ce sometimes has a quasi-resultative meaning. See 4.123.

l. pə	'to send'	'send (someone) to V_h'	hô pə	'send to sell'
			yù pə	'send to get'
			thɛ pə	'send to break'
			qòʔ e pə	'send (to go) home'

The meaning of pə is quite different from that of the causative variable V_v ci, which also means 'to send' as a main verb. While the latter is one of the abstractest of all versatile verbs, pə retains as a versatile the concrete notion of 'verbal or physical inducement to purposive *motion*.'

4.12. *Binary* C_v's *with medials.*

The medial V_v's, as indicated above, are a numerous, open, semantically specific and heterogeneous class of verbs, only one member of which may occur in a given concatenation.[31] The semantic concreteness of the class

31 But see below 4.126.

is pointed up by the fact that at least half the members are V_{adj}'s, whereas no other class of versatile verbs comprises any adjectives at all.[32]

It is convenient to further subdivide the medials into four categories: adjectival, active (= non-adjectival), resultative, and enlivening.

4.121. *Adjectival medials.*

Since V_{adj}'s, whether functioning as V_h's or versatile verbs, have much less concatenational freedom than other verbs, it is to be expected that the adjectival medials would concatenate exclusively with non-adjectival V_h's —and such is indeed the case.[33]

In the following lists, loans from Shan are marked with an asterisk.

Verb:	*Meaning as* V_h:	*Meaning as* V_v:	*Examples*:	
a. lɛ	'to be late'	'to V_h (too) late'	là lɛ	'come late'
			bùʔ lɛ	'write too late'
b. šɔ́	'to be early'	'to V_h (too) early'	nɔ̂ šɔ́	'wake up early'
			thu šɔ́	'chop down too early'
c. ša	'to be easy'	'easy to V_h; pleasant to V_h; interesting to V_h'	ni ša	'good-looking; nice to look at'
			na ša	'interesting to listen to'
			te ša	1. 'easy to do' 2. 'pleasant to do'
d. ha̲	'to be difficult; be poor, wretched'	'difficult to V_h; unpleasant to V_h'	šɨ́ ha̲	'hard to twist'
			na-ni ha̲	'unpleasant to ask'
e. i̲	'to be big'	'to V_h a lot'	lɔ̀ i̲	'beg for a lot'
			yù i̲	'take a lot'

The medial mâ and the caudal jâ are much more common than i̲ as versatiles, and have similar meanings. See below).

f. i	'to be little'	'to V_h a little bit'	kə i	'put in a little'
			šá i	'pluck a little'

The adverb a-cí is much more frequently used to convey this meaning.

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32 With the possible exception of the variable lɔ̀ʔ 'enough', though a case may be made for considering this an 'action verb' like the English 'suffice'. At any rate 'enough' is much more abstract than an adjective like 'early' or 'busy'.

33 But see below, k. (mâ) and 4.125. Adjectival V_h's concatenate regularly only with some of the caudals and variables.

Verb:	*Meaning as* V_h	*Meaning as* V_v:	*Examples*:	
g. *kì	'to be busy'	'be busy V_h 'ing'	qɔ̂ kì	'be busy hoeing'
			jɔ̀ʔ kì	'be busy threshing'
h. *khɔ̀ʔ	'to be wearisome'	'to V_h with difficulty; V_h through suffering; be tiresome to V_h'	hu khɔ̀ʔ	'difficult to raise (of children)'
			jû khɔ̀ʔ	'walk with difficulty'
i. *kɘ(n)	'to be worthy'	'be worthy of V_h; be worthy of being V_h'ed'	yo̲ kɘ	'be trustworthy'
			tho kɘ	'worthy of being told'
j. bɔ̀	'to be lazy; be boring, depressing'	'be tired of V_h'ing; be too lazy to V_h'	ɡ̈î bɔ̀	'tired of running'
			chɛ̄ bɔ̀	'tired of living'
k. bûʔ	'to be immoderate; excessive; harsh; overstrong'	'to V_h to satiety; to V_h one's fill'	yìʔ bûʔ	'sleep one's fill'
			ɡ̈ɔ bûʔ	'read enough to be satisfied'
l. mâ	'to be numerous'	1. 'to V_h a lot'	šı̲ mâ	'know a lot'
		[2. 'many (people) V_h']	cɔ̀ mâ	'have a lot'
			[là mâ	'many come'
			chu mâ	'many are fat']

This verb is of considerable interest:

1. The meaning of versatile mâ depends on the class of verb-head. After transitive action verbs, mâ maximizes the object of the action. After intransitive action verbs or V_{adj}'s, mâ indicates a multitudinous subject.

2. The last remark seems to contradict our statement above that the medials concatenate only with non-adjectival V_h's. But in fact strings of intransitive V_{act} + mâ and V_{adj} + mâ are concatenations only on the surface. In the underlying structure the "V_h" is actually the verb of a relative clause whose head has been deleted and which functions as a whole as the subject of the *main* verb mâ. Thus chu mâ 'many are fat' is derived from an underlying string like

chu ve và?	mâ	'the fat pigs are many;
N_{rh}	V	there are many fat pigs',

where the P_{Univ} ve serves to link the relative clause chu 'fat' to the relative head và? 'pig'. Then the relative head is deleted by a transformation of quite general applicability,[34] to yield the string

chu ve mâ 'the fat ones are many',

which is grammatical as it stands. (It is never grammatical to insert ve between the V_h and a V_v in a true post-head concatenation). The ve is then optionally deleted by a further transformation.

3. The variable V_v jâ, as we shall see, is often roughly synonymous with mâ, but the two verbs have contrasting meanings in one environment (below 4.133. g).

4. The fact that mâ is homonymous with the negative adverb mâ 'not', which is diametrically opposed to it in meaning, makes all concatenations of V_h + mâ + caudal or variable V_v ambiguous. Such concatenations are therefore avoided in practice, but are theoretically possible if the context is clear enough:

a) šị mâ pí 'is able to know a lot'
V_h V_v V_v

b) šị mâ pí 'is unable to know'
V_h Adv V_v

4.122. *Non-adjectival medials.*

Verb:	*Meaning as* V_h:	*Meaning as* V_v:	*Examples*:	
m. yà?	'to commit an offense; to be at fault'	'to V_h by mistake; to offend by V_h'ing'	qô? yà?	'say the wrong thing'
			dô yà?	'misunderstand'
			šɛ yà?	'lead astray'
n. *phî?	id.	id.	te phî?	1. 'do by mistake' 2. 'offend by one's deeds'

The medial yà? is unrelated to the homophonous juxtacapital 'descend'.
phî? is a Shan borrowing of identical meaning.

o. gî	'to visit; to play'	'to V_h for pleasure; V_h for the fun of it'	tô gî	'walk around for pleasure'
			mi gî	'sit around sociably'

34 Cf. Matisoff, *op. cit.*, 6.23. "Relative Clauses", pp. 612 ff.

Verb:	*Meaning as* V_h:	*Meaning as* V_v:	*Examples*:	
p. tô	'to walk; to roam around'	1. 'to go around V_h'ing'	hò tô	'go around crying'
		2. 'to V_h aimlessly'	phûʔ tô	'go around looking for'
		3. 'to V_h for fun'	gî tô	'go visiting around'

tô is often very similar in meaning to gî, but conveys more of a nuance of motion than the latter. It is not surprising that tô shows a special affinity for the pre-head versatile ca.

q. *hâʔ	'to dare'	'to dare to V_h'	jîʔ hâʔ	'dare to move'
			g̈ì hâʔ	'dare to laugh'
			pɔ̂ʔ hâʔ	'dare to jump'
r. *tâ(n)	'to be free, be at leisure'	'to have time to V_h; be ready to V_h'	câ tân	'have time to eat'
			chî tâ	'have time to wash'
s. ma̲	'to teach'	'to show how to V_h; V_h for someone's edification'	thái ma̲	'show how to plow'
			g̈ɔ ma̲	'teach how to read'

4.123. *Resultative medials.*

Three of the medials have meanings which are resultative in force: that is, they specify the consequence of the action of the V_h. These medials may all occur after great numbers of V_h's, which leads us to distingusih them from the non-versatile resultative complements (above 2.4).[35]

Verb:	*Meaning as* V_h:	*Meaning as* V_v:	*Examples*:	
t. tɛ	'to put, place'	'to V_h so it stays put; to V_h something and leave it'	te tɛ	'set up permanently'
			bà tɛ	'throw away for good'
			thu tɛ	'chop down and leave (where it fell)'

Sequences of V_h + tɛ are very reminiscent of the Japanese -TE OKU construction.

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35 It is worth mentioning that a couple of the juxtacapitals also may have resultative force. Thus tɔ̄ʔ 'to V_h out', as in g̈ɔ̀ tɔ̂ʔ 'pull out', really means '(to pull) *so it comes out*'. And ce 'to V_h down', as in bɔʔ ce 'shoot down', really means '(to shoot) *so it falls down*'.

Verb:	*Meaning as* V_h:	*Meaning as* V_v:	*Examples*:
u. chêʔ	'to break in two; snap in two'	'to V_h utterly; V_h to a definite conclusion'	câ chêʔ 'eat all up' hɔ̂ chêʔ 'sell out; sell completely' yɔ chêʔ 'say everything there is to be said' vì chêʔ 1. 'buy outright (free and clear)' 2. 'buy out (so nothing remains to sell)'
v. cí	'to stick to, be fastened to; to pin-point, fix upon'	1. 'to V_h so it becomes fixed' 2. 'to persist in V_h'ing'	thɔ̂ʔ cí 'hook fast onto' bɔ̂ʔ cí 'shoot home' cô-câ cí 'keep on trying' vəʔ cì 'persist in wearing'

In its second, non-resultative sense, cí is to be identified with the pre-head versatile cí (above 3.0 i). This is one of the very few cases of the same verb functioning as both a $_vV$ and a V_v with approximately the same meaning. (See the caudal ğa, below).

4.124. *Enlivening medials.*

There are two medials which serve merely to enliven the action of their VP, much like the pre-head versatile ğò. However, while ğò was the abstractest of the $_vV$'s, and therefore always occurred first in any multiversatile $_vC$ in which it appeared, neither of these post-head enliveners (see their glosses, below) is as abstract as the members of the caudal or variable classes of V_v's; they therefore precede the latter in multiversatile concatenations. This is good evidence for the fact that very few pre-head versatiles are as abstract as the caudal and variable V_v's.[36]

Verb:	*Meaning as* V_h	*Meaning as* V_v	*Examples*:
w. gè	'to be fast, quick'	ENLIVENER — implies a suddenness or abruptness of action	ši gè 'drop dead' pɔ̂ʔ gè 'jump suddenly' pai gè 'fall over with a crash'
x. phê	'to set free; to launch, to issue forth'	ENLIVENER — imparts a driving, outward-thrusting violence to the action	tú phê 'set on fire' thêʔ phê 'kick out at' dɔ̂ʔ phê 'strike out at' qhèʔ phê 'chip off with force'

36 This point is of great importance when we consider fore-and-aft concatenations, below 6.0 *et seq.*

4.125. *Apparent sequences of adjectival head + medial.*

We have already explained why sequences of V_{adj} + mâ are not true concatenations in the underlying structure (above 4.1211.). Exhaustive elicitation has unearthed only three other examples of verb sequences which at first glance appear to be instances of V_{adj} + medial V_v. These all involve the V_h chu 'fat':

chu lɛ 'slow to get fat' (as of a scrawny pig)
chu šɔ́ 'be an early fattener' (as of a precocious pig)
chu tân 'get fat in time' (as of a pig who is ready for slaughter by a certain date)

But in all these cases chu is not functioning as a true adjective 'be fat', but is rather an intransitive verb of becoming: 'get fat, fatten up'.

4.126. *Apparent sequences of two medials.*

With extreme rarity an apparent sequence of two medial V_v's is encountered. In these cases the first of the medials is tightly bound to the V_h, forming what is really a lexical compound to which the second medial stands in a versatile relationship.

Examples:

A. chê 'be, dwell' + ša 'pleasant to V_h, easy to V_h' → chê-ša 'be well, happy, prosperous'
chê-ša ha̲ 'be difficult to be happy'

B. chê 'be, dwell' + ha̲ 'hard to V_h' → chê-ha̲ 'be wretched'
chê-ha̲ ša 'be easy to be wretched'

C. qôʔ 'say' + gî V_h for fun' → qôʔ-gî 'to joke, tease'
qôʔ-gî hâʔ 'dare to joke'

4.1.3. *Binary C_v's with caudals.*

The caudals comprise the smallest but one of the most important subclasses of V_v's. They are highly abstract in meaning, and occur as late as possible in multiversatile C_v's.[37] It is worth discussing each of the seven members of the class in some detail.

4.131. *The potential caudals.*

Three of the caudals have meanings involving modes or ability of potentiality:

37 Only variable V_v's may ever follow a caudal.

a. phɛ̀ʔ

As a V_h, phɛ̀ʔ is used in identity statements with the meaning 'be' (as in "He *is* the headman"); in general statements relating to a prevailing state of affairs, i.e., 'be the case' (as in "That's the way things *are*"); or (often followed by the P_v la 'becoming') in statements of eventuation, happening, coming into being (as in 'I didn't think that would *happen*").

As a V_v, phɛ̀ʔ is translatable variously as 'able to V_h; can V_h; may V_h; is allowed to V_h'. The potentiality expressed by versatile phɛ̀ʔ seems usually to have reference to factors which are beyond one's control: objective, independent, extrinsic circumstances, the permission of others, etc. Thus ti phɛ̀ʔ, 'able to plant' would occur in contexts like 'enough rain to *be able to plant* the paddy'. qai phɛ̀ʔ 'able to go' would fit such contexts as "His father said he *could go*". chɛ̂ phɛ̀ʔ 'able to stay' would be suitable in a context like "I *can't stay* because my husband is waiting for me".

b. pí

In its relatively rare occurrences as a V_h, pí means 'be clever at, skillful at, good at (something)'. As a V_v it means 'to have the ability to V_h; to be able to V_h well; to be good at V_h'ing'. Thus ɡ̈ɔ pí 'able to read' is appropriate in "Can you read, little boy?", while ɡ̈ɔ phɛ̀ʔ is required for "Can you read it in this light?" Similarly,

bɔ̂ʔ pí 'able to shoot', in "The Lahu are good shots";
vs. bɔ̂ʔ phɛ̀ʔ 'able to shoot' in "This gun is so dirty I can't shoot with it".

With V_h's (either V_{act} or V_{adj}) relating to human emotions or mental activities, pí forms concatenations that refer to innate qualities of character or personality:

khwɛ́	'jealous'	:	khwɛ́ pí	'be a jealous sort'
hɛ̨	'tell a lie'	:	hɛ̨ pí	'be deceitful'
yàʔ-tɔ	'be ashamed'	:	mâ yàʔ-tɔ pí	'be brazen, shameless'
hàʔ-qá	'take pity on'	:	hàʔ-qá pí	'be kind-hearted, compassionate'

c. ɡ̈a

As a V_h ɡ̈a means 'get, obtain'. We have seen that as one of the abstractest $_vV$'s it means variously 'to get to V_h, to have managed to V_h' or 'must V_h'.[38] As a caudal V_v, ɡ̈a means 'able to V_h' in the sense of 'having by dint of the expenditure of effort surmounted the difficulties which had

38 See especially footnote 15.

hindered the attainment of a state of ability'. 'Managed to V_h' is the closest translation in most cases. Thus:

tâ? ğa 'manage to carry', as in "With just two people you won't be able to carry it back".

na ğa 'manage to understand', as in "I can only understand a little of the Red Lahu dialect".

The fact that ğa may be either a $_vV$ or a V_v, as well as a V_h, makes for severe ambiguities whenever it is followed by another verb that can be used versatilely. If, e.g., ğa precedes mɔ̀ (which means 'to see' as a V_h and 'to have ever V_h'ed' as a non-potential caudal V_v), there are three possible interpretations of the sequence:

1. ğa mɔ̀ 'to get to see; manage to see;
   $_vV$ V_h must see; to find'
2. ğa mɔ̀ 'to have ever gotten; to have ever obtained;
   V_h V_v to have seen (someone) get something'
3. yù ğa mɔ̀ 'to have ever been able to take;
   V_h V_v V_v to have ever managed to take'.

In 3, both ğa and mɔ̀ are caudals following the V_h yù 'take'.

4.132. *Mutual exclusiveness of the potential caudals.*

The three potential caudals are mutually exclusive, though any one of them may occur *before* the non-potential caudals.

"Mutual exclusiveness" is an important notion which, it seems to me, it is incumbent on a semantic theory to refine. Without being able to develop this here in a serious way, it appears that mutual exclusiveness is of two basic types: to put it baldly, things exclude each other either because they are *too similar*, or because they are *too disparate*.

The exclusive relationship obtaining among the potential caudals, like that among, say, the English modals, is of the former type. The potential caudals form a kind of system or paradigm, each of which has many semantic features in common with every other member, but which differ from one another in a structured way. The whole point of the language's maintaining several such similar entities is to impose an all-or-nothing choice on the speaker in any given situation.[39]

39 This seems to be what is going on among the juxtacapitals as well. These all have the feature 'motion' or 'directionality' in common, though some pairs have additional

On the other hand, the mutual exclusion that prevails among the medials is largely due to the utter disparateness of their meanings: the meanings of, e.g., ma̲ 'show how to V_h', tân 'have time to V_h', gɨ̂ 'V_h for pleasure', kǝ 'worthy of V_h'ing', etc., do not differ from each other in a precise way. They are incommensurable. Some of the medials, however, do form antonymous pairs (ša 'easy', ha̲ 'hard'; lɛ 'late', šɔ́ 'early', etc.), and are mutually exclusive on 'similarity' grounds.

4.133. *The non-potential caudals.*

d. cɔ̂

As a V_h cɔ̂ usually means 'to be correct, fitting, right; be harmonious, friendly, well-suited'. Occasionally it means 'to occur by chance; to happen to be the case'.[40]

As a caudal V_v, cɔ̂ means, according to context, either 'ought to V_h, should V_h', or else 'V_h by chance, happen to V_h'.

thɔ̂ cɔ̂ 1. 'ought to touch'
2. 'happen to touch'

yù cɔ̂ 1. 'should take'
2. 'chance to take'

e. mɔ̀

As a V_h mɔ̀ means 'to see'. As a caudal V_v it has a much abstracter meaning: to witness the action or state referred to by the V_h; to have ever seen or heard of (someone's) V_h'ing'. Note that in its versatile function, the range of mɔ̀ is not limited to visual perception.

kâ mɔ̀ 'to have ever heard'

yù mɔ̀ 1. 'to have ever taken'
2. 'to know (someone) to have taken'

(There is a P_v jɔ of very similar 'experiential' meaning.)

f. tà-ò

As a V_h tà means 'to be enough'. It is very often followed by the P_v ò which indicates a change of state. (The very concept of being 'enough'

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antonymous features: kɔ 'to V_h *into*'; tɔ̂ʔ 'to V_h *out*'. Antonymy is the extreme case of 'differing from one another in a structured way'.

40 It seems this second meaning is an outgrowth of the first. Events have their 'chance to occur' when there is a 'fitting' or 'harmonious' or 'conducive' combination of circumstances to precipitate them. "That which is, is right", as it were.

implies to the Lahu that a former lack has been filled: a state of not-having has been changed to a state of having.)

As a caudal V_v, tà-ò means 'it is now time to V_h; given the present circumstances, one had better V_h'.

dɔ̂-phû? tà-ò 'it's now time to repent'
qai tà-ò 'it's time to go now'
vì tà-ò 'now's the time we should buy it'

The meaning is rather different when negative mâ intervenes between the V_h and tà-ò: 'be sick and tired of V_h'ing':

qai mâ tà-ò 'be sick to death of going'
na mâ tà-ò 'be sick and tired of listening'

g. jâ

As a V_h jâ means 'to exceed, surpass, be exaggerated'. Much more frequently it serves as a caudal V_v with one or another of several related 'maximizing' meanings:

1) After transitive action verbs, jâ maximizes either the object of the action or the action itself:

ši jâ 'know very much'
bì? jâ 'be very angry at'

2) After intransitive V_{act}'s jâ indicates a multitudinous subject:

qai jâ 'many go; lots of people go'
pɔ jâ 'many are born'

So far the use of jâ exactly parallels that of the medial mâ (above 4.121.1). But:

3) jâ contrasts with mâ after V_{adj}'s. In this environment jâ means 'very V_h' or 'too V_h', but mâ indicates a multitudinous subject:

dà? jâ 'very good'
(dà? mâ 'many are good')

chu jâ 'very fat; too fat'
(chu mâ 'many are fat')

The deep status of V_{adj} + jâ is different from that of V_{adj} + mâ, however. Whereas the latter is transformationally derived from V_{adj} + ve + N_{rh} + mâ, the former is a true versatile concatenation. It is ungrammatical to insert ve between a V_h and jâ.

4.134. *Sequences of caudals.*

The potential caudals precede the non-potential ones in multiversatile concatenations, thus:

phɛ̀ʔ	cɔ̂
pí	mɔ̀
	tà-ɔ̀
ğa	jâ

Sequences of more than one caudal are quite rare in practice, however.

4.135. *Caudals after adjectival* V_h*'s.*

It will be remembered that none of the juxtacapitals or medials may follow adjectival V_h's. Five of the seven caudals, on the other hand, may so occur: a tribute to their far greater abstractness.

chu phɛ̀ʔ 'may (is allowed to be) fat'
dàʔ pí 'can (has the ability to) be good'
kâʔ cɔ̂ 1. 'ought to be cold'
2. 'happens to be cold'
hɔ mɔ̀ 'have ever been hot; have known it to be hot'
nû jâ 'very soft'

4.14. *Binary* C_V*'s with variable versatiles.*

The variable V_V's are perhaps the most important of all the post-head versatiles. Their meanings are extremely abstract, conveying the sort of information which in other languages might be furnished by aspectual affixes. In the following list, the versatile meanings of these verbs are given to the right of the slash, while their meanings as V_h's appear to the left:

chɛ̂	dwell/'continuative'	ni	look at/'tentative'
ci	send/'causative'	pɔ̀	finish/'completive; exhaustive'
qai	go/'continuative-inchoative'	pî	give/'benefactive; permisso-causative'
mɔ	be a long time/'durative'	lɔ̀ʔ	enough/'sufficitive'

Fig. 15. The aspectual nature of the variable V_V's.

Taking, for example, the V_h vɔ̀ʔ 'to put on (clothing); to wear', we may run down the list as follows:

və̀? chɛ̂ is wearing'	və̀? ni 'wear and see; try on'
və̀? ci 1. 'make (smn) wear'	və̀? pə̀ 1. 'has already put on'
2. 'let (smn) wear'	2. 'everybody wears'
və̀? qai 'goes on wearing'	və̀? pî 1. 'dress someone'
və̀? mɔ 'has worn for a long time'	2. 'let someone wear'
	və̀? lɔ̀? 'enough to wear'

It is an indication of the high degree of abstractness of the variable class that six of the eight members occur regularly after adjectival V_h's:

chu chɛ̂ 'is still fat'	chu pə̀ 'are all fat'
chu ci 'cause to be fat; fatten'	chu pî 'make fat for (someone)'
chu qai 'become fat; get to be fat; get fatter and fatter'	chu lɔ̀? 'fat enough'

The chief interest of the variables lies, however, in the fact that they are permutable with other V_v's in multiversatile C_v's, with concomitant changes of meaning. This behavior will be discussed in detail below (5.1.). For now we simply observe that the variables do not constitute a mutually exclusive class (like the juxtacapitals, medials, or potential caudals). A given multiversatile C_v may be simultaneously marked for several of the 'aspectual' categories, thus:

šî?	bà	ci	pî	chɛ̂
V_h	$V_{v\text{-juxt}}$	V_{var}	V_{var}	V_{var}
wipe	away	(causat.)	(benef.)	(contin.)

'is making (them) wipe (it) away for (him)'[41]

4.2. *Ambiguous concatenations revisited.*

We are now in a position to account in a general way for the type of ambiguous binary concatenation alluded to in the Introduction (1.0).[42]

In all such cases, *the first of the two verbs is a* $_vV$, *while the second is a* V_v. Two interpretations are thus always possible in principle: either the first verb is the V_h and the second is a V_v, or the first is a $_vV$ and the second is the V_h. To return to our original examples:

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41 "V_{var}" is a convenient abbreviation for "$V_{v\text{-}var}$": 'variable post-head versatile'.

42 The explanation has of course been adumbrated in the discussion of the sequence ğa mɔ̀ (4.1.3.1. c, above).

lɔ̀	chɛ̂	'beg to be there'	: lɔ̀	chɛ̂	'is begging'
${}_{v}V$	V_h		V_h	V_v	
g̈a	kì	'must be busy'	: g̈a	kì	'is busy getting'
${}_{v}V$	V_h		V_h	V_v	
ta̲	ša	'begin to be easy'	: ta̲	ša	'easy to begin'
${}_{v}V$	V_h		V_h	V_v	
ga	cɨ	'help to send'	: ga	cɨ	'cause to help'
${}_{v}V$	V_h		V_h	V_v	

Fig. 16. Ambiguous ${}_{v}V$–V_v concatenations.

5.0. *Multiversatile post-head concatenations.*

The most jejune sort of rule one could write to generate multiversatile C_v's would look something like this:

"Rule J":

$$ß \rightarrow V_h + Jux_o^1 + Var_o + Med_o^1 + Var_o + Caud_o^2 + Var_o$$

That is, the verbal nucleus, beta, may be expanded to include, besides the verb-head, up to one juxtacapital, up to one medial, and up to two caudals, in that order, as well as zero or more variables at any post-juxtacapital point in the concatenation.

But even if a simple rewrite rule of this type could be refined to specify the exceedingly complex selectional restrictions obtaining among the individual members of the concatenated classes, it would still be totally inadequate to characterize the way in which multiversatile C_v's are understood: for it fails to assign the sort of leftward-embedded structure which is involved. There is in fact abundant evidence that the structure of C_v's is the mirror-image of that of ${}_{v}C$'s. That is, *in a post-head concatenation all the verbs to the left of a given verb serve as the latter's* V_h.

Consider the following concatenation, which might be used to describe the obligations of a school of dentistry toward its students:

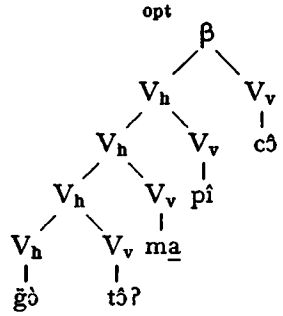
cì	g̃ɔ̀	tɔ̂ʔ	ma̲	pî	cɔ̂
NP	V_h	$V_{v\text{-juxt}}$	$V_{v\text{-med}}$	V_{var}	$V_{v\text{-caud}}$
teeth	pull	out	show-how	(benef.)	ought

"(They) ought to show them how to pull out teeth." The head of cɔ̂ 'ought' is the whole string g̃ɔ̀ tɔ̂ʔ ma̲ pî: 'ought to—show for-their-benefit how to pull (them) out'. The head of pî 'benefactive' is g̃ɔ̀ tɔ̂ʔ ma̲: the

whole act of 'showing how to pull out' is performed 'for someone's benefit'. The head of ma̲ 'teach how' is g̈ɔ̀ tɔ̂ʔ 'pull out'. The head of tɔ̂ʔ 'out' is g̈ɔ̀ 'pull'.

The following rule is still most crude—it does not, among its other defects, specify the subcategorizational or selectional restrictions on the recursive embedding in C_v's—but it does at least convey the hierarchy of head-modifier relationships correctly:

Rule 4. $V_h \rightarrow V_h + V_v$ (opt)



5.1. *Demonstration of leftward-headedness: permutations of variable versatiles in multiversatile* C_v*'s.*

The nature of the hierarchical structure of multiversatile C_v's is thrown into sharp relief by the behavior of the variable V_v's. Permuting a variable with a neighboring V_v automatically imposes a different logic of relative headedness on a C_v; that is, it entails a new semantic interpretation that differs in a predictable way from the former one.

We proceed to offer examples of this phenomenon in connection with each of the eight variables in turn:

a. chɛ̂ As V_h: 'to be in a place; to live, dwell'
As V_{var}: 'be in the act or state of V_h'ing; be still V_h'ing' (CONTINUATIVE)
câ phɛ̀ʔ chɛ̂ 'is still able to eat'
V_h V_{caud} V_{var} (i.e., his ability to eat is ongoing)
câ chɛ̂ phɛ̀ʔ 'is able to eat still'
V_h V_{var} V_{caud} (i.e., he is able to go on eating)

b. ci As V_h : 'to send (on a mission, etc.)'
As V_{var}: 'make someone V_h; let someone V_h' (COERCIVE- OR PERMISSIVE- CAUSATIVE)

câ phɛ̀ʔ ci 'make (someone) able to eat'
V_h V_{caud} V_{var}
câ ci phɛ̀ʔ 'able to make (someone) eat'
V_h V_{var} V_{caud}

c. qai As V_h : 'to go'
As V_{var}: 1. After V_{act}—'go on V_h'ing' (CONTINUATIVE)
2. After V_{adj}—'become V_h' (INCHOATIVE)
g̈ɔ ša qai 'become easy to read'
V_h V_{med} V_{var}
g̈ɔ qai ša 'easy to continue reading'
V_h V_{var} V_{med}

d. mɔ As V_h : 'to be a long time; to last a long time'
As V_{var}: 'to V_h for a long time' (DURATIVE)
qa-mì pí mɔ 'have been able to sing for a long time'
V_h V_{caud} V_{var} (i.e., this ability was acquired long ago)
qa-mì mɔ pí 'can sing for a long time'
V_h V_{var} V_{caud} (i.e., have a high cantatory endurance)

e. ni As V_h : 'to look at'
As V_{var}: 'to V_h and see; to try V_h'ing; to V_h up the flagpole and see who salutes' (TENTATIVE)
là lɛ ni 'try coming late; come late and see what happens'
V_h V_{med} V_{var}
là ni lɛ 'be late in trying to come'
V_h V_{var} V_{med}

f. pɔ̀ As V_h : 'to finish; to be complete'
As V_{var}: When it occurs early in a multiversatile C_v, pɔ̀ usually means 'to V_h completely, to finish V_h'ing, to V_h irrevocably', or simply indicates that the action of the V_h took place at a definite time in the past and is now completed. (COMPLETIVE)

When it occurs after other V_v's, pɔ̀ may alternatively be used to indicate completeness on the *subject's* part, not the predicate's: 'everyone V_h's; the performers of V_h constitute a complete group; the entities that are in the state of V_h form a complete group'. (EXHAUSTIVE)

câ cɔ̂ pɔ̀ 'everyone ought to eat'
V_h V_{caud} V_{var}
câ pɔ̀ cɔ̂ 'ought to finish eating'
V_h V_{var} V_{caud}

g. pî As V_h : 'to give'
As V_{var}: 1. 'to V_h for (someone); to affect someone by the action of V_h' (BENEFACTIVE).[43]
2. 'to let (a third person) V_h' (PERMISSO-CAUSATIVE).
3. 'to V_h forth, V_h forward'

kɔ mạ̄ pî 'show someone how to put (it) in'
V_h V_{med} V_{var}
kɔ pî mạ̄ 'show how one goes-about-putting-(it)-in-for-
V_h V_{var} V_{med} someone's-benefit'

h. lɔ̀ʔ As V_h : 'be enough'
As V_{var}: 1. 'enough to V_h' (SUFFICITIVE)
2. 'worthy of V_h'ing'

câ ğa lɔ̀ʔ 'enough to be able to eat'
V_h V_{caud} V_{var}
câ lɔ̀ʔ ğa 'manage to eat enough'
V_h V_{var} V_{caud}

6.0. *Fore-and-aft concatenations* ($_vC_v$'s): *determining their hierarchical structure.*

The most complex and interesting of all concatenations are those of the 'fore-and-aft' variety, where versatile verbs appear on both sides of the V_h. These $_vC_v$'s are 'generable' (if we may use the word for anything so obviously oversimplified and schematic) by Rules 5 and 6, which are easily seen to be generalizations of our Rules 1 and 3, and 2 and 4, respectively.

$$\text{Rule 5. } \beta \rightarrow ({}_vV) + V_h + (V_v)$$

$$\text{Rule 6. } V_h \underset{\text{opt}}{\rightarrow} ({}_vV) + V_h + (V_v),$$

where at least one term in parentheses is selected.

43 Lahu, like Japanese, compensates for the frequent omission of subject pronouns by being careful to specify the direction of the action of the verb by morphemes within the VP. Action of the 1st or 2nd person affecting the 3rd person, or 3rd person affecting another 3rd person, is specified by pî. Otherwise the P_v lâ is used. This is an interesting example of functional parallelism between elements from different form-classes.

For a more extended treatment see Matisoff, *op. cit.*, Ch. IV, (section 4.729.). "Benefactive" is intended in the very general sense of affecting someone"; the action in question may be highly unpleasant for the "beneficiary".

But we are here faced with a problem of interpretation that had not arisen until now. In the case of a pure $_{V}C$ or a pure C_{V}, there is never any doubt about the hierarchy of head-modifier relationships: the head of a given verb in the string is the V_{h} plus any (possibly zero) verbs intervening between itself and the V_{h}. In a fore-and-aft concatenation, on the other hand, we shall show that there is no automatic, syntactic algorithm for determining the head- or modifier-status of the pre-head and post-head versatiles *relative to each other*: or, as we may say for short, for determining the *transcapital relationships* of $_{V}C_{V}$'s.

For a start, let us consider the following two $_{V}C_{V}$'s, on whose semantic interpretation every Lahu would agree:

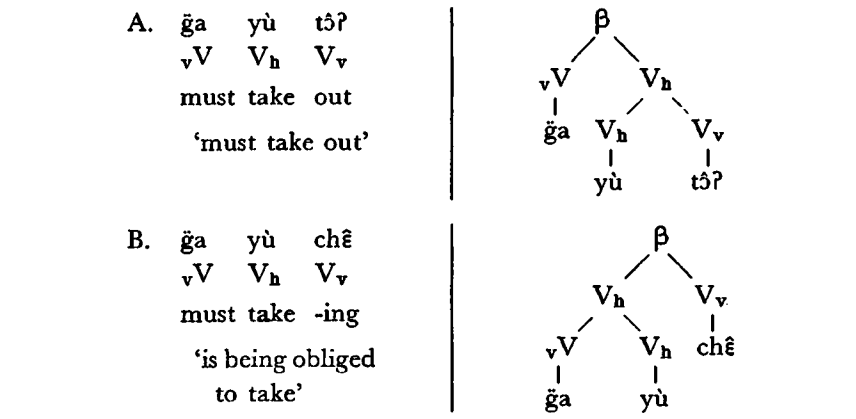


Fig. 17. Contrasting transcapital relationships.

In ğa yù tɔ̂ʔ 'must take out', the 'must' is clearly the modifier, and 'take out' is the head. The alternative interpretation (that 'out' modifies 'must take' as a unit) is absurd. The sort of transcapital relationship typified by Ex. A, wherein it is a $_{V}V$ which is set off against all the rest of the concatenation, we term *pre-primacy*.

In ğa yù chɛ̂ 'is being obliged to take', the converse transcapital relationship of *post-primacy* obtains: that is, it is a V_{V}, chɛ̂ 'continuative', which is set off against the rest of the concatenation as a whole. It is the state of having-to-take that is of extended duration; it is not a case of 'having to remain-in-the-act-of-taking'.

A first hypothesis to explain what is going on here would invoke the difference in the subclasses to which the V_{V}'s in the two examples belong. Thus tɔ̂ʔ 'out' is a member of the highly concrete juxtacapital class, while

chê '-ing' is a highly abstract variable V_v. Applying our principle that 'the abstract modifies, the concrete is modified', one might try to define an invariant procedure for assigning structural descriptions to ${}_vC_v$'s:

a.) Compare the subclasses to which the ${}_vV$ and the V_v belong;[44]
b.) assign 'primacy' to (i.e., 'make the first cut next to') the versatile verb which belongs to the abstracter subclass.

This is still very crude, but such an approach does assign correct structure to many ${}_vC_v$'s of even greater complexity. Consider the following example:

C. ga yù qai cì cɔ̂ ve lâ
${}_vV$ V_h V_v V_v V_v
ga 'help'; qai 'away';
cì 'causative'; cɔ̂ 'should'
'Should (we) make (them) help to take (it) away?'
1. cɔ̂ outranks ga
2. cì outranks ga
3. ga outranks qai

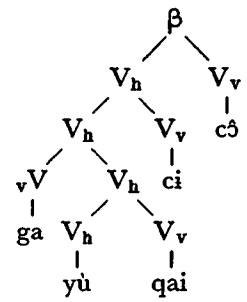


Fig. 18. Assigning structure to more complex ${}_vC_v$'s.

In this concatenation there is more than one versatile verb on one side of the head. But we know that it is the outermost verb on a particular side of the V_h that has primacy over all more inner verbs on the same side. We therefore amend our above hierarchy-determining procedure as follows:

i) Compare the subclasses to which the *outermost* ${}_vV$ and the *outermost* V_v belong;

ii) assign primacy to the versatile verb that belongs to the abstracter subclass;

iii) if, after this first cut, the remainder of the string should still be a ${}_vC_v$, proceed to compare *its* outermost ${}_vV$ with its outermost V_v and assign primacy to the one which belongs to the abstracter subclass;

iv) repeat until all the versatile verbs are on one side of the V_h.

The concatenation in Ex. C is understood as meaning 'Should (we)—make (them) help to take (it) away?', not *'Do (we) help to—make

44 We are confining ourselves for the moment to ${}_vC_v$'s with only a single ${}_vV$ and V_v.

(them) ought to take (it) away'.[45] That is, if we are to capture the way the Lahu understand this sentence, we must make the first cut before cɔ̀ 'should', not after ga 'help'. It would seem that the caudal V_V's, to which cɔ̀ belongs, are abstracter *as a class* than the Specific $_VV$'s, of which ga is a member. We proceed to examine the remainder of the concatenation: ga yù qai cì is understood as meaning 'make (them)—help to take (it) away', not *help to—make (them) take (it) away'.[45] Thus the variable V_V cì also outranks the specific $_VV$ ga. But once cɔ̀ and cì have been segmented off, ga comes into its own: ga yù qai 'help to take away', is certainly to be analyzed as 'help to—take away', not *help to take—away'. The specific $_VV$'s (like ga) clearly outrank juxtacapital V_V's (like qai) in abstractness.

If this were all there was to it, there would be no problem in assigning structural descriptions to $_VC_V$'s, and there would really be no need to operate with notions like relative abstractness at all. The whole question could be resolved on the basis of the syntactic strict subcategorization of the versatile verbs. Each subclass would be ranked on a 'primacy scale', perhaps something like this:

Caudals and Variables	(V_V)	+5
Aspectuals	($_VV$)	+4
Specifics	($_VV$)	+3
Medials	(V_V)	+2
Juxtacapitals	(V_V)	+1

These rankings would be arrived at empirically through a study of how $_VC_V$'s are actually understood. They would have merely a syntactic significance, though of course it would be possible to 'rationalize' the rankings by invoking some sort of correlation between the rank of a subclass and certain features of the 'semantic interpretations' of its members.

Attractive as it might seem, however, this 'monolithic subclass' approach cannot begin to do justice to the enormous complexity of the transcapital relationships in $_VC_V$'s.

6.1. *Types of transcapital relationships.*[46]

Transcapital pairs (i.e., pairs of verbs one of which is a $_VV$ and the other a V_V) may stand in any one of five relationships to each other: pre-

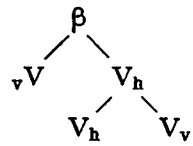
45 Ideas like this are certainly expressible in Lahu, but not via a pure concatenation. Some sort of recasting of the sentence would be required. See above 3.13.

46 See footnote 44.

primacy, post-primacy, co-ordination, ambi-primacy, and mutual exclusion.[47] The approach of 6.0 is adequate to deal with only a subset of the pairs of the first two types.

6.12. *Pre-primacy.*

The pre-primacy relationship is typified by Example A in 6.0, ğa yù tɔ̂ʔ 'must take out'. A $_{v}C_{v}$ where this relationship obtains has the structure:

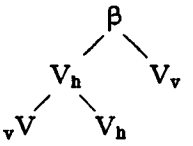


We may symbolize pre-primacy by a decrescendo sign with the $_{v}V$ on the left, thus: $_{v}V > V_{v}$, or in particular, e.g., ğa > tɔ̂ʔ.

In a certain number of the most straightforward and clearcut cases, it is almost possible to assign pre-primacy simply on the basis of the subclasses to which the versatile verbs belong, as suggested in 6.0. Thus *any* $_{v}V$, whether aspectual or specific, will almost always outrank *any* medial or (*a fortiori*) *any* juxtacapital. Yet even here there are instances where the converse is true. The specific $_{v}V$ lɔ̀ 'beg', for example, is outranked by the medial V_{v} khɔ̀ʔ 'tiresome' (see below 6.2).

6.13. *Post-primacy.*

Post-primacy, typified by Example B in 6.0, ğa yù chɛ̂ 'is being obliged to take', is associated with the following structure:



This relationship may be symbolized by a crescendo sign with the $_{v}V$ on the left, thus: $_{v}V < V_{v}$, or in particular, e.g., ğa < chɛ̂.

In some cases it is almost always possible to assign post-primacy according to the approach of 6.0: *any* caudal or variable V_{v} is virtually certain to outrank *any* $_{v}V$ of the specific class.

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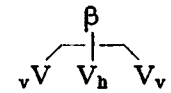
47 Rough analogues of each of these relationships are readily found in English constructions: (1) Pre-primacy: un|like-ly. (2) Post-primacy: gentle-man|ly. (3) Co-ordination: re|discover|y. (4) Ambi-primacy: Old French | teacher ~ old | French teacher.

But a host of complications arise, as we shall see, when it is an *aspectual* $_{v}V$ (g̈a, qɔ̀ʔ, ta̲) that confronts a *caudal* or *variable* V_v across the same V_h.

6.14. *Co-ordinateness.*

Our Rule 5 (6.0 above) provides for the possibility of a three-way co-ordinate branching from the verbal nucleus node in $_{v}C_v$'s:



Concatenations with structures like this do indeed occur,[48] and this fact alone renders the approach of 6.0, whereby each syntactic subclass of versatile verb is assigned a *different* rank *en bloc*, inadequate in principle.

A pair of transcapital verbs is judged to be *co-ordinate* in a given concatenation when (1) there is no perceptible difference in the meaning (as determined by a consensus of native speakers—but see below 6.142.) regardless of which of the versatile verbs is deemed to modify the other two verbs in the string, or (2) when it does not even make sense to pose this question, since the pair as a whole functions as a single verb.

We symbolize transcapital co-ordinateness by a double-headed arrow, thus: $_{v}V \leftrightarrow V_v$, or in particular, e.g., ca ↔ qai.

Let us consider the two types of transcapital co-ordination in turn:

6.141. *Co-ordination I: transcapital 'long components'.*

We have already observed in passing (4.11. e) that certain $_{v}V$'s have selectional affinities for certain V_v's. These affinities are the consequence of a large number of shared semantic features. For example:

a) The specific $_{v}V$ of motion, ca 'go and V_h' is found very often as the transcapital partner of juxtacapital V_v's of motion like qai 'go' and là 'come', or of a few medial V_v's that refer to motion or the results of motion, like tô 'go around for pleasure' and gî 'quasi idem':

ca hɔ̂ qai 'go (off) and sell'
ca câ tô 'go around munching'

b) The specific $_{v}V$ cí 'Vh incessantly' is a frequent partner of the variable V_v chɛ̂ 'continuative':

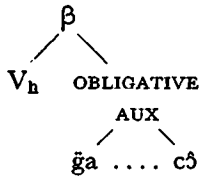
cí hɔ̀ chɛ̂ 'is keeping on crying'

48 If Rule 5 and this last diagram were more accurate, they would of course indicate that the two versatile verbs, though co-ordinate with *each other*, are both *subordinate* to the V_h.

c) The aspectual $_{V}$V ğa 'must' frequently occurs in the same concatenation with the caudal V_{V} cɔ̂ 'ought, should':

ğa vì cɔ̂ 'ought to buy'

In cases like these there is really no question of relative ranking, since there are grounds for maintaining that there is only *one* underlying versatile verb anyway:



6.142. *Co-ordination II: equivalent interpretations of* $_{V}C_{V}$'s.

The more interesting and crucial type of co-ordination involves transcapital pairs that do not necessarily share any semantic features in common, but whose meanings are such that no matter which hierarchical structure is assigned to their $_{V}C_{V}$, there is no appreciable difference as far as the native Lahu speaker is concerned.

This sort of relationship obtains with particular frequency between aspectual $_{V}$V's and caudal or variable V_{V}'s. As a classic example we may take the concatenation qɔ̀ʔ te ci 'make (someone) do (it) again', containing the $_{V}$V qɔ̀ʔ 'V_h again', the V_h te 'do', and the causative V_{V} ci. From the English point of view it makes a difference whether one says 'make him — do it again' as opposed to 'again — make him do it'. In the first case only a single act of coercion is involved: on the previous occasions he may have done it of his own free will. In the second case, the act of coercion is repeated.[49] A Lahu, however, finds such a distinction quite far-fetched. He uses the same transcapital pair qɔ̀ʔ .... ci whether he is speaking of (a) a boy repeatedly hitting a buffalo with a stick to make him pull a plow, or of (b) a boy administering a single stroke of the stick in order to make the buffalo pull the same plow he has already pulled before. This is not to say that qɔ̀ʔ ... ci concatenations are *ambiguous* to the Lahu (in the sense of 6.15.). Rather they are *indeterminate* or *unspecified* with respect to any hierarchical ordering of the components 'repetition' and 'causation'. Needless to say, if it is absolutely desired to convey such an

49 'Again make him do it' has this unambiguous meaning in English. The Lahu construction is somewhat more similar to English 'make him do it again', where the 'again' may be taken, I would say, as modifying either 'make' or 'do'.

ordering of these concepts, this may be achieved by recasting the sentence so that the concepts are no longer embodied in a single verb-concatenation.

Other (aspectual) $_{v}V \leftrightarrow$ (caudal/variable) V_{v} pairs include: qɔ̀ʔ ↔ ni; qɔ̀ʔ ↔ chɛ̂; qɔ̀ʔ ↔ mɔ; qɔ̀ʔ ↔ cɔ̌; qɔ̀ʔ ↔ phɛ̀ʔ; qɔ̀ʔ ↔ pí; qɔ̀ʔ ↔ ğa; ğa ↔ jâ; ğa ↔ phɛ̀ʔ; ğa ↔ pí, etc.

As a final example, consider the pair qɔ̀ʔ 'again' . . . ni 'tentative; V_{h} and see, try V_{h}'ing'. A concatenation like qɔ̀ʔ hɔ̌ ni translates both the English 'again — try selling' (where the seller may never yet have succeeded in selling anything), or 'try selling — again' (where perhaps the seller, flushed by his former success, is about to have another try at it).

6.15. *Ambi-primacy: alternative interpretations of* $_{v}C_{v}$'s.

So far we have been discussing $_{v}C_{v}$'s with but a single structural description — and these are in the vast majority. Occasionally, however, a Lahu will admit that one and the same $_{v}V_{v}$ is susceptible of two different meaningful interpretations. A transcapital pair of verbs that give rise to a situation of this kind are said to stand in a relationship of *ambi-primacy* to one another. When two verbs stand in ambi-primacy, (1) it makes sense to set either one of them off against the rest of the concatenation as modifier to head; and (2) each of the alternative structures is associated with a distinct and unforced semantic interpretation.

Ambi-prime pairs determine either of the structures diagrammed in 6.12 and 6.13, and may be symbolized by a double two-headed arrow between the elements, thus:

$$_{v}V \Leftrightarrow V_{v}$$

As a typical $_{v}V \Leftrightarrow V_{v}$ pair we may take the aspectual $_{v}V$ ta̲ 'begin' and the variable V_{v} ci 'causative'. The concatenation ta̲ yɔ ci may mean, according to context, *either* 'begin to — make (him) talk' *or* 'make (him) — begin to talk'. When confronted with the fact of this ambiguity, a Lahu will be surprised at first, but will soon agree "it means sometimes this, and sometimes that".

Ambi-primacy is the rarest type of transcapital relationship, and there are many cases where the dividing line between ambi-primacy and coordination is very hard to draw.

6.151. *Compounding of ambiguity due to polysemy of one member of a transcapital pair.*

Transcapital relationships are sensitive to the particular shade of meaning of polysemous versatiles. For example, the aspectual $_{v}V$ ğa means either

'must V_h' or 'get to V_h, manage to V_h'. When the transcapital partner of ğa is, e.g., the causative V_v ci, the structure of the $_vC_v$ is a function of the particular meaning of ğa in a given instance. Thus (a) when ğa means 'must V_h', ğa ⇔ ci: ğa pû ci may mean either 'must — make (him) carry' (pre-primacy), or 'make (him) — have to carry' (post-primacy). The transcapital relationship is one of ambiprimacy. (b) If, on the other hand, ğa means 'manage to V_h', ğa > ci: the concatenation can only mean 'manage to — make (him) carry', not *'make (him) — manage to carry'. The transcapital relationship is one of simple pre-primacy.

6.16. *Mutual exclusion.*

An extreme sort of transcapital relationship is mutual exclusion, symbolized by a thrice-crossed line: $_vV \frac{///}{///} V_v$. This phenomenon is more appropriately discussed in connection with the whole network of selectional constraints on concatenations. For now we simply remark that categorical exclusions between particular $_vV$'s and V_v's are relatively rare when there is only one versatile verb on each side of the V_h. But such constraints do exist: $_vV$ ğa 'get to V_h; must V_h' $\frac{///}{///} V_v$ ğa 'able to V_h'; $_vV$ cí 'V_h incessantly' $\frac{///}{///} V_v$ tân 'have time to V_h', etc.

6.2. *Recapitulation: syntactic subclass and transcapital behavior.*

We have seen that there is no simple correlation between a verb's membership in a given syntactic subclass of versatiles and the relationship it has with a particular transcapital verb. Especially in the case of $_vC_v$'s with both aspectual $_vV$'s and caudal/variable V_v's, a given member of a syntactic subclass may turn out to stand in any of five relationships with one or another of the various members of a particular transcapital subclass.

Members of the less abstract subclasses (the specific $_vV$'s and the juxtacapital and medial V_v's) have more predictable transcapital relationships. Yet even here it is sometimes not possible to assign hierarchical structure in a way that is not sensitive to the semantic features of individual versatile verbs. The following is a striking example:

In general, the specific $_vV$'s outrank (have primacy over) the medial V_v's. This is the case with the $_vV$ lò 'ask to V_h' and the medial V_v bû? 'to V_h to satiety'. Thus lò câ bû? means 'ask to — get enough to eat': lò > bû? in accordance with this general tendency to pre-primacy. On the other hand, when one selects another medial V_v khò? 'be wearisome to V_h', as the transcapital partner of lò, the relationship is completely opposite.

lò câ khàʔ can only mean 'be wearisome to — ask to eat', not *'ask to — be wearisome to eat'. lò < khàʔ, and the relationship is one of post-primacy. It is hard to see how this can be explained without recognizing that it is the relationships among the semantic features of individual transcapital pairs which actually determine the syntactic properties of $_{v}C_{v}$'s.

6.3. *Selectional constraints and overall concatenation-length.*

Semantics rears its head even before the generative semantic component is called upon to assign hierarchical structure to concatenations. An elaborate system of selectional constraints must be built into the grammar in order to avoid the generation of concatenations that are uninterpretable. These selectional rules may be conceived of as operating both within the inventory of versatile verbs and, perhaps more importantly, between particular V_h's and particular versatile verbs or particular combinations of versatile verbs.

It turns out empirically that the only concatenations to survive the filtering or winnowing effect of these rules are those within a certain quite narrow range. The maximum of versatile verbs in a given concatenation is about four: either four $_{v}V$'s, or four V_v's, or two of each, or one of one type and three of the other. With more than this number the piling-up of semantic marks is so overwhelming that there are no V_h's whose own semantic features are compatible with the aggregate.

The output of selectionally permissible concatenations is then consigned to the appropriate syntactic and semantic components for their linear ordering and the assignment of their hierarchical structure.[50]

6.4. *Conclusion: the syntax and semantics of 'simple' juxtaposition.*

The interpretation of concatenations, and especially of $_{v}C_{v}$'s, is a very subtle matter, at which the non-native speaker finds himself at a distinct disadvantage, to say the least. The Lahu are not yet used to metalinguistic discussion, and the elucidation of marginal, aberrant, or ambiguous concatenations is a slow and painful process. Nevertheless, whatever room there may be for disagreement in the interpretation of particular strings (e.g., 'is such-and-such a $_{v}C_{v}$ co-ordinate or truly ambiguous?'), our main point still stands: it is the ensemble of the inherent semantic features of individual

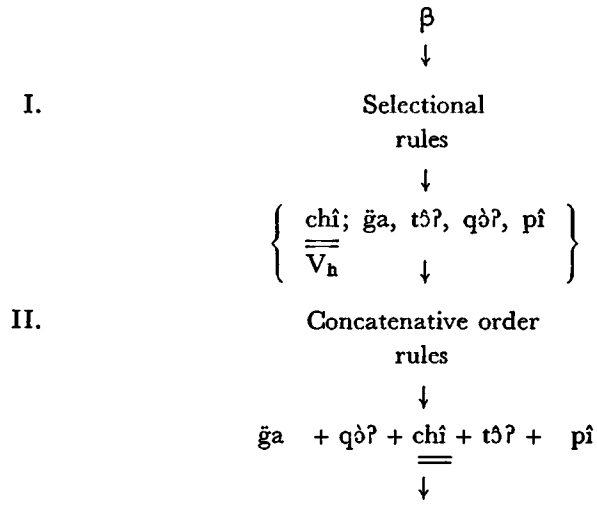
50 The crudity and vagueness of the present conception of the interrelationship among the selectional, generative semantic, and syntactic components needs no emphasis, and perhaps no apology either, considering the enormous difficulty of the question. See the charts in the next section.

versatile verbs that ultimately determines the structural descriptions of concatenations.

The notion of relative abstractness is useful and important to our argument, but it alone is insufficient to account for all the facts in anything but a rough, suggestive way. In the absence of a language-independent abstractness metric, and in view of the fact that versatile verbs of (as far as we can see) equal degrees of abstractness may differ in their concatenative properties, we must take refuge in the more inclusive notion of 'the ensemble of inherent semantic features'.

The point of view adopted in this paper requires a reinterpretation of the P-markers used to symbolize the structure of concatenations. Our versatile verbs are not some sort of secondary appendages that are merely plugged into appropriate slots in ready-made deep syntactic P-markers. Rather, it is the (selectionally permissible) combination of verbs which the speaker chooses from the lexicon in a given instance which actually generates the appropriate P-marker for the concatenation. We conclude with two examples of a new type of structural diagram that better reflects the relationship between the semantics and the syntax of Lahu verb concatenations.

A. ğa qɔ̀ʔ chî tɔ̂ʔ pî
$_{v}V$ $_{v}V$ V_h V_v V_v
must again lift out (benef.)
'must lift it out again for (someone)'



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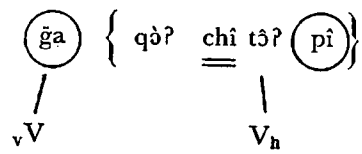
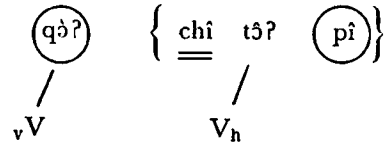
III. Structure assignment rules

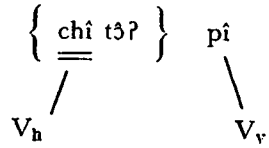
a. ğa > pî



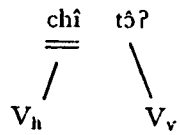
b. qɔ̀ʔ > pî



c. tɔ̂ʔ < pî



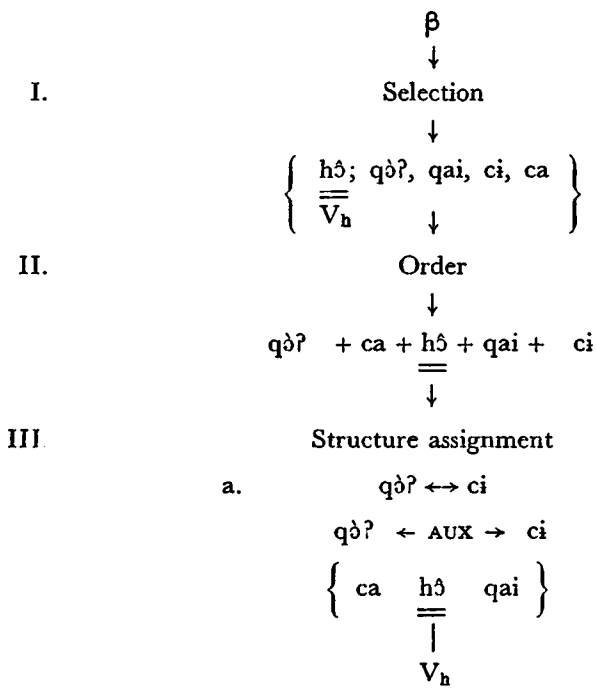
d.



For the verbal nucleus, the speaker chooses in this instance a V_h chî 'lift' plus an unordered set of versatile verbs whose semantic features are such that they are congruent both with each other and, individually and collectively, with the verb-head (I). This set of verbs then passes through the component that assigns linear order to verb strings (II). This order-assignment is also in part a function of the inherent semantic features of the individual verbs (roughly, the more abstract the versatile verb, the further away from the V_h it occurs), but also involves constraints which are brute syntactic givens of the language. For example, some of the abstractest versatiles occur before the head, others, equally abstract, occur

after the head. At this point it is time to assign hierarchical structure to the linear string (III). In the case of pure $_{v}$C's or pure C$_{v}$'s, this structure is an automatic consequence of the linear ordering. But in the case of $_{v}$C$_{v}$'s, as in this example, the grammar must proceed to compare the outermost $_{v}$V with the outermost V$_{v}$ in 'rank' (these are circled in the diagram), assigning structure on the basis of the particular transcapital relationship which obtains between them. In this case, the $_{v}$V ğa is found to outrank the V$_{v}$ pî (III a); ğa is therefore set off against the rest of the concatenation as a whole. This remainder is then examined for relative rank (III b), and the $_{v}$V qɔ̀ʔ is also found to outrank the V$_{v}$ pî; qɔ̀ʔ is then set off against chî tɔ̂ʔ pî as a whole. But this remainder is now a simple post-head concatenation: all the versatiles are to the right of the head. The outermost V$_{v}$ pî is therefore automatically set off against chî tɔ̂ʔ (III c). This residue consists simply of the V$_{h}$ and a single versatile verb, and the latter is assigned modifier status by definition (III d).

B. qɔ̀ʔ ca hɔ̂ qai ci 'make (him) go and sell again'
$_{v}$V $_{v}$V V$_{h}$ V$_{v}$ V$_{v}$
again go and sell go and (causat.)



b. ca ↔ qai

ca ← AUX → qai

$$\left\{ \begin{array}{c} \text{hɔ̂} \\ = \\ \end{array} \right\}$$
$$|$$
$$V_h$$

Once the verbs are assigned a linear order (II), qɔ̀ʔ and ci are compared in rank, and found to be co-ordinate. They are thus simultaneously set off from the residue ca hɔ̂ qai, which is their head (III a). At this point, ca and qai are also found to be co-ordinate, and are set off simultaneously from the naked V_h hɔ̂ (III b).

Lahu verb concatenations, in which morphology plays no part and where the surface syntax is of the simplest, constitutes an ideal terrain for the investigation of the generative role of raw semantics. Our analysis has no doubt raised as many questions as it has answered.[51] But perhaps it has demonstrated that this role is indeed a crucial one.[52]

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51 Foremost among these is: to what extent and in what detail does it make sense to expect the semantic systems of widely different languages to conform to a universal semantic theory?

52 Lorenz Löffler of Heidelberg Univ. informs me that in the Mru language of East Bengal (showing close affinities with the Kukish sub-group of TB), where the same sort of concatenatory phenomena obtain, the semantic equivalents of Lahu $_V$V's usually occur *after* the verb-head, while the equivalents of Lahu V_V's generally occur *before* the V_h. This seems to gibe with the suggestion of my colleagues Diver and García that perhaps there is an 'overall meaning' to pre-headedness in general as opposed to post-headedness in general. At the moment, however, it is hard for me to see just what these 'positional meanings' might be.