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AMHARIC VERBAL TYPES FROM TEXT AND LEXICON *

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1. In 1965, toward the end of my first stay in Ethiopia, I started an ambitious project: compiling an Amharic-English dictionary which would fill the gap for the foreigner wanting to read the daily newspapers. One step in this task was to gather frequency data on current usage of vocabulary items in the newspapers. Like many similar undertakings, this one was cut short of its objectives by lack of time and money.

Nevertheless, I did collect about 6000 lexical items with glosses, illustrative sentences, and some grammatical information, and this will hopefully see the light of day sometime. With the help of my friend and colleague, Negga Shibeshi, I also managed to get a frequency count of the complete contents of six daily news-

* Acknowledgments: Ato Negga Shibeshi for painstaking and cheerful collecting and processing of data; Mary Hope Lee for further painstaking and cheerful processing of data; The Institute of International Studies of the Office of Education, HEW, for a grant to finance a research assistant to aid the analysis of the data under Contract No. OEC-0-71-1018 (823); Stanford University for providing fine facilities and climate for research during my year as a visiting assistant professor of linguistics, 1970-71.

papers. These consisted of three issues each of *Addis Zemen* (New Times) and *Ye-Ityoppiya Dimts* (Voice of Ethiopia). Unfortunately, I no longer have a record of the exact dates of these issues.

This material has been analyzed for loanwords and for distribution of verbs according to the major morphological and derivational classes of Amharic. In both cases, it is possible to make comparisons with very similar earlier studies (Abraham 1963 and Mantel-Niećko 1964 respectively).

The report of the loanword study may be seen in Bender 1972. In the present case, comparison with Mantel-Niećko 1964 (henceforth M-N) shows comparable results but also some intriguing differences. The sections to follow present tables of the verb forms found by number and classification. The classification scheme is one originated by Dawkins 1960 and modified for use in my PhD dissertation (Bender 1968 unpublished).

Explanation of classification:

- I trilaterals other than reduced quadrilaterals
- II bilaterals other than „hollow verbs”
- III „hollow verbs” (missing medial radical)
- IV quadrilaterals
- V trilaterals from reduced quadrilaterals
- 1 final vowel of verb -a
- 2 final vowel of verb -ε
- A gemination type A: penultimate radical geminate in simple perfect only
- B gemination type B: penultimate radical geminate in all forms
- C gemination type C: penultimate radical geminate in simple perfect and imperfect only
- * hypothetical (i.e. verb not occurring in base form but only in derived forms)
- a- first radical replaced by a-
- 0₁, 0₂, 0₃ vowel -o- in 1st, 2nd, or 3rd radical respectively
- 11, 112, 122, 1212, 1233 consonants of radical having the same indices are identical

Note 1. All verbs are of the gemination types explicitly indicated except that all class III verbs (having no penultimate

radicals) are of no type (ø) and that classes IV and V are all type C.

Note 2. Verbs indicated explicitly as type C are not only of gemination type C but also have unusual vocalizations suggesting possible reduction from longer forms or derivation from corresponding normally vocalized forms. Examples. *galleε* (IC), *rarra* (IIIC11).

Summary of 3995 forms counted:

Table 1: Numbers of forms by verb types

Type	No. of Verbs ¹	No of Forms ²	Type	No. of Verbs	No. Forms
IA	67	787	IIIC11	3	11
IAa-	19	144	*IIIC	1	1
IAO ₁	4	34	II2B	3	65
IA122	11	48	*II2B	5	99
IA122a-	1	7	*II2Ba-	1	10
*IA	14	159	II2C	2	4
*IAa-	2	4	III1	19	318
IB	43	354	*III1	7	70
IBa-	14	130	III2	5	19
IBO ₁	3	16	III3	9	197
IBO ₁ 122	1	2	IV	16	81
IBO ₂	1	1	IVa-	2	3
IB122	2	4	IVO ₃	1	2
*IB	9	97	IV1212	14	52
*IBa-	1	2	IV12120 ₁ 0 ₃	1	3
*IB112	1	1	IV1233	2	20
IC	9	34	IV	7	102
IC112	1	1	*IV1212	6	38
*IC	4	16	*IV1233	1	4
*IC112	1	1	VI	7	39
II1A	46	596	*VI	2	5
II1Aa-	2	8	V2	3	28
II1AO ₁	2	28	V20 ₁	1	5
*II1A	5	44	*V2	4	28

Type	No. of Verbs ¹	No. of forms ²	Type	No. of Verbs	No. of Forms
*II1AO ₁	1	1	copula	1	61
II1B11	2	2	unknown	1	2
II2A	6	175	quintiliteral	2	3
II2Aa-	2	29	Total:	400	3995

Note 1. The first figure tells how many different basic verbs (real or hypothetical) are represented in the data for each classification type regardless of its number of occurrences.

Note 2. The second figure tells the total number of occurrences of forms (basic verbs or derived forms) found in the data for each classification type.

Table 2: Numbers and percentages of forms by combined verb types

Combined Types	No. of Forms	Further Combined Types	Percents of Total
IA	1183	A: 2064	51
II1A	677		
II2A	204		
IB	607		
II1B	2	B: 783	19
II2B	174		
IC	52		
II1C	12		
II2C	4	C: 544	13½
IV	305		
V1	44		
V2	61		
III	604	ø: 604	15
Others	66	—	1½
	3995	3995	100

Note: ø stands for gemination type „zero”, i.e. inapplicable.

Table 3: Numbers and percentages of forms by radical structure

	No.	%
Biliterals	1677	42
Triliterals except for reduced quadriliterals	1842	47
Triliterals from reduced quadriliterals	105	3
Quadriliterals	305	7
Others	66	1
Total	3995	100

Table 4: Numbers and percents of forms cataloged according to derivations involved

Verb Form		No. of Forms		Percents		
M-N	MLB	M-N	MLB	M-N	MLB ¹	
O	= Basic	2579	1526	54	38,	66
T	T	1213	244	25	6,	11
A	A	361	319	8	8,	14
AS	As	177	48	4		
AST	AsT	23	17	1		
TST ²	?	2	0?	0		
T ₃	CR	101	0	2		
AT ₃	ACR	89	0	2	2,	4
O _f	R	18	1	0		
T _f	TR	144	37	3		
A _f	AR	6	0	}	1	
AS _f	AsR	1	0			
AST _f	AsTR	11	0			
TST _f ²	?	10	0?			
AT _f	ATR	36	21			
—	AC	—	5	}		3,
—	AT	—	7			
—	ATC	—	19			
—	An	—	6			
—	TC	—	47			
—	N	—	1143	0	29,	—
—	Others	—	555	0	14,	—
Total ³		4771	3995	100	100,	100

Notes. The M-N figures are from Mantel-Niećko 1964: 39, Table 4 (2). The MLB figures were computed from the corpus of 3995 forms covered in this study.

1. The two percents under the MLB column are (respectively) with and without taking into account the two categories N (nouns) and Others (includes adjectives, adverbs, postpositions, conjunctions, etc.). Since M-N did not include these categories, the second percent under MLB will be found to be more strictly comparable to the M-N figures.

2. The meanings of these abbreviations for derivations are not known to me.

3. In Mantel-Niećko 1964, the total of table 4 (2) mentioned in the heading above the table.

Abbreviations: T: *te-* prefix (intransitivizer or passivizer), A: *a-* prefix (transitivizer or causative), As: *as-* prefix (factitive or indirect causative), R: reduplicative (reflexive-reciprocal derivation), C: *-a-* in first radical („conative”), An: *an-* prefix (usually an intensifier), N: noun derived from verb.

Combinations of derivations are to be treated as operators applying to the left of a verb-form, e.g. in AsTR, R applies first, then T, finally As.

Comments: It will be seen from the above (Table 2) that type A verbs (gemination in simple perfect only) account for about half of all verb occurrences in text, type B verbs (gemination in all principal parts) for about one-fifth, type C (gemination in simple perfect and imperfect only) and ø („hollow” verbs, therefore no penultimate radical and no gemination) about 1/7 each, and all others a residual 1 or 2 percent.

From Table 1 we see that by far the most frequent verbs are basic types IA, II1A, and IB. Although III1 verbs are not so many in number as a class (19), they occur very frequently (318). In terms of radical structure (Table 3), basic trilaterals account for nearly half of all occurrences, and basic bilaterals account for most of the rest. Looking at Table 4, and using the second Bender (MLB henceforth) figures of the percent column (see Note 1 to Table 4), we see that Basic (non-derived), T (*te-* prefix), and A (*a-* prefix) account for nearly all verb occurrences: 87 % for

M-N, 91 % for MLB. However, where M-N has 54 % of her sample Basic, I had 66 % or about 2/3. I found less than half as many T forms but nearly twice as many A forms as Mantel-Niećko.

3. In this section I consider several interesting ratios. These are: proportions of verbs of a given type appearing in the base form as against all forms including derived forms (Table 5), proportion of verbs formed on hypothetical bases to those built on all bases (Table 6), proportion of verbs having first radical *a-* (not a derivational marker) to all verbs (Table 7), verbs having an *-o-* in a radical to all verbs (Table 8), and verbs with repeated radicals to all verbs (Table 9). Bear in mind that all these tables are for verb occurrences in text, not different verbs from lexicon, which will be taken up later.

Table 5: Ratio of basic to all forms occurring in a given type

Type	No. of Basic	No. of All Forms	Ratio
IA	387	1183	.33
IB	261	607	.43
IC	23	52	.44
II1A	189	677	.28
II1B	2	2	1.00
II1C	10	12	.83
II2A	170	204	.83
II2B	10	174	.06
II2C	3	4	.75
III1	177	388	.46
III2	9	19	.47
III3	147	197	.75
IV	64	305	.21
V1	6	44	.14
V2	6	61	.10
Other	62	66	.94
Total	1526	3995	.38

Table 6: Ratio of verbs on hypothetical bases to verbs on all bases

Hypothetical Bases		All Bases		Ratio
*IA	163	IA	1183	.14
*IB	100	IB	607	.16
*IC	17	IC	52	.33
*II1A	45	II1A	677	.07
*II1C	1	II1C	12	.08
*II2B	109	II2B	174	.63
(*III1	70	III1	318	.22) ¹
*III	70	III	604	.12
*IV	144	IV	305	.47
*V1	5	V1	44	.11
*V2	28	V2	61	.46
Total:	682		3719	.18

Note 1: This figure included in the next one following and not counted in the total.

Table 7: Verbs having *a-* to all verbs of corresponding types

<i>a-</i> type		<i>a-</i> and non <i>a-</i>		Ratio
IAa-	155	IA	1183	.12
IBa-	132	IB	607	.22
II1Aa-	8	II1A	677	.01
II2Aa-	29	II2A	204	.14
II2Ba-	10	II2B	174	.06
IVa-	3	IV	305	.01
Total	337		3150	.17

Comments: Regarding Table 5, it might be noted that some classes are so small that the significance of the results is very limited. The range in the really large classes (IA, IB, II1A, III1, IV) is .21 to .46, agreeing well with the overall average of .38. It is interesting that the type IV quadrilateral verbs are less likely to appear in derived forms than the others. The extreme variation in the II2 class from nearly all occurrences basic (.83) for II2A to

nearly all derived (.06) for II2B is curious. The „Other” category is seen to consist of mainly derived verbs, many on hypothetical bases.

Going on to Table 6, we see that the large classes (IA, IB, II1A, III, IV) have a moderate range of .07 to .12, all below the average of .18, except for IV, which has .47. (Note that here III1 is combined with all of type III in one class and that all occurrences of hypothetical „hollow” bases is in type III1 — a fact which may be of some significance). Thus quadrilateral verbs fall below other frequent types in taking derivations, but run way ahead in having derived forms from hypothetical bases. Verbs of less frequent classes generally have higher proportions of hypothetical bases.

The „causative” prefix *a-* is found most frequently with IB verbs (Table 7), quite frequently with IA and II2A, but rare with II1A and IV. It is not found with „hollow” verbs or type V. The higher frequency with IB than with IA is remarkable, but I reserve further comment for Sections 4 and 7.

Table 8 shows occurrences of *-o-* in verb forms to be rather rare. The high percentage for V2 may not be significant, since the number of occurrences is relatively small.

Table 8: Verbs having *-o-* to all verbs of corresponding types

<i>-o-</i> type		<i>-o-</i> and non <i>-o-</i>		Ratio
IAO ₁	34	IA	1183	.03
IBO ₁ O ₂	19	IB	607	.03
II1AO ₁	28	II1A	677	.04
IVO	5	IV	305	.02
V2O ₁	5	V2	61	.08
Total:	91		2833	.03

Repeated radicals are five times as frequent in type IA as in IB. This seems to be highly significant and may be related to the question of the origin of the A-B distinction. Type IV verbs show a high tendency to repeated radicals. This is obviously correlated to the possible origin of quadrilaterals through repetition of radicals.

Table 9: Verbs with repeated radicals ¹ to all verbs of corresponding types

Type 122, etc.		All Verbs		Ratio
IA122	55	IA	1183	.05
IB122	6	IB	607	.01
IV1212	93	IV	305	.30
IV1233	20	IV	305	.07
Total:	174		2400	.07

Note: Very small classes such as III1B11, *IC112, etc. not included.

4. Mantel-Niećko 1964: 40—41 states that from a text of 80 octavo pages, 5000 verbs were selected for investigation (as compared to my sample of 3995). The basis of the selection is not given. The sample included 430 verb roots (as compared to my 400) of which 60 occurred more than 20 times, 10 „about and over” 100 times. The latter 10 are listed, but unfortunately not the former 60.

Table 10: Mantel-Niećko's most frequent verbs

MLB Rank	Verb	Gloss	No. Occurrences	
			Basic	Total
2	<i>hone</i>	„be, become”	92	103
3	<i>ale</i>	„say”	55	97
4	* <i>geññe</i>	„get”	0	89
5	<i>gebba</i>	„enter”	24	86
6	<i>alle</i>	„be, have”	66	85
tie 13	<i>cale</i>	„can, be able”	45	55
tie 14	* <i>derrege</i>	„do” (f)	0	54
tie 17	<i>nore</i>	„be, dwell”	43	45
tie 27	<i>nebbere</i>	„was”	25	29
tie 35	<i>Kerre</i>	„remain”	20	20

All of M-N's 10 most frequent verbs are found in my data. However, although the 10 include my second to sixth most frequent verbs, my single most frequent verb is missing. This is *serra*, „do, make, work”. Whether this verb is missing in one case,

found in the other, because of the nature of the two texts involved or for other reasons is not certain. However, it might be significant that *serra* appeared 87 out of 108 times in my text in derived forms, especially in noun forms having to do with governmental and business activities. The high incidence of *serra* may thus be a function of „journalese”. It would be interesting to know whether *serra* appears among M-N's 60 items of frequency 20 or greater.

Table 11: Frequencies of derivations A, T, as compared by verb type

Verb Type	Forms Occurring	Freq.	Freq.	Freq.	Ratio A/T
		Der. A.	Der. T.	Der. As	
A	2064	194	90	30	2:1
B	783	34	76	8	1:2
C	544	78	38	1	2:1
ø	604	13	41	8	1:3

Comment: It has been claimed that type A verbs are generally intransitive and type B verbs generally transitive and that therefore A verbs generally take derivation A (*a-* prefix, transitivizer) but not T (*te-* prefix, intransitivizer) whereas B verbs generally take T but not A (e.g. see Abraham 1964). As we saw in section 3, IB verbs showed more A derivations than IA. However, when we combine all gemination types as above, we see a different picture. It can be seen from Table 11 that the correlations Type A: takes A but not T; Type B: takes T but not A are about equally strong. Compared to the low or even negative correlations of section 7 this may imply that when frequency of actual occurrence is taken into account, semantic considerations exert an influence and some of the theoretical A stems with T derivation and B stems with A derivation may be very rare in use. See section 7 for further discussion.

Since I know of no theoretical reasons for types C and ø to correlate with A and T derivations, I shall refrain from discussing them here. The sample size is sufficiently small to raise serious reservations about statistical significance in any case. It might

just be worthwhile noting that Dawkins 1969: 29, fn. 6 remarks that most or all type III verbs are contracted type A verbs: if this is so, one would expect them to show the same pattern as type A verbs, but they instead are like type B verbs, only more so. Finally, since the *as-* (indirect causative or factitive prefix) is productive in all classes, its distribution shows little.

6. In the sample of 3995 forms found in the six newspapers, 400 different basic verbs were identified. These are distributed by types as given in detail in Table 1. A summary will be given here along with a summary of the 787 verbs used in the Lexicon of Bender 1968: 25—26.

Table 12: Numbers of verbs from lexicon by verb type

Type	400-lex.	787-lex.	Type	400-lex.	787-lex.
IA	78	184	II2B	9	7
IAa-	36	37	II2BO ₁	0	3
IAO ₁	4	12	II2C ¹	2	—
IB	55	120	III1	26	64
IBa-	15	22	III2	5	13
IBO ₁	4	13	III3	9	25
IBO ₂	1	7	IV	46	98
IBa-O ₂	—	1	IVa-	2	8
IC ¹	15	—	IVO ₁	0	6
III1A	51	83	IVO ₃	1	5
III1Aa-	2	4	IVO ₁ O ₃	1	7
IIAO ₁	3	5	V1	9	12
II1B	2	11	V2	7	15
II1BO ₁	0	1	V2O ₁	1	4
II1C ¹	4	—	Copula	1	—
II2A	6	16	Unknown	1	—
II2Aa-	2	4	Quintiliteral	2	—
			Total	400	787

Note: In Bender 1968 all verbs of types IC, II1C, II2C were considered as derived forms from verbs of other basic types.

Table 13: Numbers and percentages of verbs by combined verb types

Combined Types	No. of Verbs	Further Combined Types	Percent of Total
400-lex	787-lex		
IA	118	A: 182, 345	45½, 44
III1A	56		
II2A	5		
IB	75	B: 86, 185	21½, 23
II1B	2		
II2B	9		
IC	15	C: 88, 155	22, 20
II1C	4		
II2C	2		
IV	50	ø: 40, 102	10, 13
V1	9		
V2	8		
III	40	ø: 4, —	1, —
Others	4		
	400	787	100 100

Comment: From Tables 12 and 13, we see that in the lexicon, basic types IA, IB, III1A, III, and IV predominate, accounting for about 85% to 90% of all verbs. Also, as with verbs from text, type A accounts for nearly half of all verbs, and type B for about one-fifth, but here type C also accounts for one-fifth, whereas type ø loses a bit to about one-eighth. The results are really quite similar.

Table 14: Numbers of verbs by radical structures

				%	%
		<u>M-N</u>	<u>MLB</u>	<u>M-N</u>	<u>MLB</u>
(i) Triliterals	Normal Vocali-				
	zation	775	304	39	38½
	with -a-	59	0 ¹	3	0 ¹
	with -o-	44	32	2	4
	with a-	104	60	5	7½
		<u>982</u>	<u>396</u>	<u>49</u>	<u>50</u>

				%	%
		M-N	MLB	M-N	MLB
Reduced quadrilaterals	Pattern <i>beretta</i>	75	12	4	2
	<i>zegeyye</i>	18	15	1	2
	<i>gedajje</i>	5	0 ²	0	0 ³
	<i>qorennna</i>	3	4	0	0
		101	31	5	4
(ii) Quadrilaterals	Normal Vocali-				
	zation	572	98	28½	12½
	with -o-	27	18	1½	2
	with a-	21	8	1	1
		620	124	31	15½
(iii) Biliterals	Pattern <i>merra</i>	118	100	6	12½
	with a-	4	4	0	½
	Pattern <i>qerre</i>	33	26	1½	3½
	with a-	5	4	0½	½
	Pattern <i>Tafe</i>	87	64	4½	8
	Pattern <i>Tese</i>	10	13	½	2
	Pattern <i>qome</i>	17	25	1	3½
Reduced quadrilaterals (?)					
	Pattern <i>rarra</i>	17	0 ³	1	0 ³
	<i>wašše</i>	14	0 ⁴	½	0 ⁴
		305	236	15	30½
Total		2008	787	100	100

Notes: The M-N figures are from Mantel-Niećko, 1964 25—26, 32—33; Table 1.

The MLB figures are from Bender, 1968, Table 3.

1. In Bender, 1968, these are not considered as basic forms but are treated as derived forms of normally-vocalized trilaterals.
2. Treated as derived forms from normally-vocalized V2 verbs in Bender 1968.
3. Treated as derived forms from Class III verbs in Bender 1968.
4. Treated as derived forms from Class II verbs in Bender 1968.

Comment: In the lexicon, both M-N and I found almost exactly half of all verbs are basic (non-contracted) trilaterals (this compares closely to the 47% found for verb occurrences in text). However, whereas M-N found only 15% bilaterals, I found twice as many: over 30% (as compared to 42% from text). On the other hand, M-N found about twice as many quadrilaterals as I did: 31% to my 16% (as compared to 7% from text). I cannot explain these discrepancies. It is apparent, however, that bilaterals are more frequent in *occurrence*, i.e. that they tend to be freely used as compared to quadrilaterals, whereas trilaterals hold their own in textual use.

M-N gives a further breakdown into radicals of pattern 112, 1233, etc. From Appendix C, Table C-3 of Bender 1968: 161—164, I am able to extract information yielding the following further details:

Table 15:

	M-N	MLB
Pattern 112	19	14
Pattern 121	2	1
Pattern 112	153	43
Pattern 1212	179	56
Pattern 1213	15	1
Pattern 1231	10	1
Pattern 1233	108	16
Pattern 1232	4	0
Pattern 1234	256	50

Comment: Allowing for the fact that the M-N sample is nearly three times as large as my sample (2008 vs. 787), our findings are comparable except for discrepancies in pattern 112 where I found nearly as many as M-N, and patterns 1213, 1231, 1233, and 1232 where I found disproportionately fewer, as well as in pattern 1234 where the discrepancy is not so great (1:5 as against the expected 1:3).

Table 16: Numbers and percents of forms cataloged according to derivations involved

Verb Form		No. of Forms		Percents	
M-N	MLB	M-N	MLB	M-N	MLB
O = Basic		1788	831	25	22
T	T	1224	647	16	18
A	A	808	283	11	8
AS	As	1039	690	14	9
Others	Approx.	2273	—	34	33 ¹
Approx. Total:		7132	2451	100	100

¹ Postulated to make other figures same scale as M-N.

Comment: The findings of M-N and I for distributions of basic and derived verbs in lexicon are very similar: the biggest discrepancy is M-N's 14% *as-* forms as against my 9%. There is a striking difference as against textual use. Basic verbs are all of 3 times as frequent in text as in the lexicon (according to my figures), but T derived forms are less frequent and A derived forms more frequent in text. However, the large „Others” category is hard to gauge and might have a large influence if it could be broken down.

7. The suggestion made by Abraham Demoz in his dissertation mentioned above may be rephrased and generalized as follows: (1) since intransitive verbs generally take the A derivation (prefix *a-*, transitive or causative) but not the T derivation (prefix *te-*, intransitive or passive), whereas transitive verbs generally take T but not A, and since (2) intransitive verbs are generally of gemination type A whereas transitive verbs are generally of type B, it follows that (3) type A verbs generally take A but not T, whereas type B verbs generally take T but not A. This is my generalization, not explicitly stated by Abraham, and I am not sure he would support it. Obviously its truth depends on how strong the „generally's” are in the above. For example, if „generally” means 60%, then 60% of 60% is 36%, a minority, but if „generally” means 80%, then 80% of 80% is 64%, a majority.

The correlations in question are summarized according to their applications to the lexicon of 787 verbs in Bender 1968 and tested as follows:

Table 17:

(a) (Bender 1968: 98)

345 Type A verbs		185 Type B verbs	
transitive	161	transitive	127
intransitive	160	intransitive	50
undetermined	24	undetermined	8

(b) (Bender 1968: 99)

	take <i>-a</i>	take <i>te-</i>
of 292 transitive verbs	23	292
of 210 intransitive verbs	138	14

(c) (a new calculation done independently of the above)

Verb Type	take <i>-a</i>	take <i>te-</i>
A 339 (39*)	150	284
B 181 (24*)	31	156

From Table 17b we see that indeed there are high correlations between transitivity and taking T but not A and between intransitivity and taking A but not T. However, Table 17a shows that whereas the correlation between type B and transitive is high, that between type A and intransitive is about zero (i.e. type A verbs are almost evenly divided between transitive and intransitive).

The result is that the correlations of type A with taking derivation A and of type B with taking derivation T are mixed. Type A verbs take derivation A five times as often as type B verbs, but type A verbs also take T about 1—2/3 times as often as type B verbs. Since there are more type A verbs than type B, this is a bit misleading. However, a simple calculation shows that $284/339 = 84\%$ of type A verbs take T whereas $158/181 = 87\%$ of type B verbs take T. The difference is probably too small to

be significant. Looking at it the other way, type B verbs take T about five times as often as they take A, but type A verbs take T about 1—2/3 times as often as they do A.

Summary: type B verbs are generally transitive and take T but not A. Type A verbs are about equally divided between transitive and intransitive and take T a bit less freely than B verbs do, as well as taking A much more freely.

(Note that neither A nor B verbs take A derivation very freely: A verbs slightly less than half; B verbs only about one-sixth. Also note that sums in the tables are not always the total number of verbs because some verbs take both A and T or neither A nor T; also for some verbs it was not possible to get the information).

Appendix

(Note: capital letters represent glottalized ejectives)

Appendix: Most Frequent Items in the study

TRANSCRIPTION	GLOSS	FREQUENCY
<i>le</i>	to, for, etc.	> 100
<i>be</i>	in, at, by means of, etc.	> 100
<i>-na</i>	and	> 100
<i>ke</i>	at, from, to, with	> 100
<i>ye</i>	of	> 100
<i>hone</i> (III1)	be, become	92
<i>alle</i> (II2Aa- def.)	there is	66
<i>seTTe</i> (II2A)	give	63
<i>awweKe</i> (IAa-)	know	62
<i>ale</i> (III1 irr.)	say	55
<i>gizze</i>	time, occasion, etc.	51
<i>bizu</i>	much, many	49
<i>te-geññe</i> (t-*II2B)	be found	48
<i>a-derrage</i> (a-*IA)	do	47
<i>cale</i> (III1)	be able, can	45
<i>new</i>	be, is	44
<i>nore</i> (III3)	live, dwell	43

TRANSCRIPTION	GLOSS	FREQUENCY
<i>gelleTe</i> (= <i>gelleSe</i>) (IA)	explain, uncover	43
<i>yih</i>	this (m. sg.)	41
<i>sira</i>	work, business	40
<i>liyyu</i>	different	39
<i>sew</i>	person	39
<i>se7at</i>	hour, time	37
<i>Kerrebe</i> (IA)	approach, get near	37
<i>kibur</i>	honorable	35
<i>a-geññe</i> (a-*II2B)	find, get	33
<i>wisT</i>	in, inside	33
<i>inde-</i>	such as, like, that	32
<i>gudday</i>	affair, matter; less (time)	32
<i>sile</i>	about, concerning	31
<i>Ken</i>	date, day	31
<i>lay</i>	over, on	29
<i>a-Kebbele</i> (a-*IB)	hand in	29
<i>derrese</i> (IA)	reach, arrive; write a book	28
<i>niguse negest</i>	emperor	27
<i>amet</i>	year	27
<i>a-Kerrebe</i> (a-IA)	approach (tr. v.)	27
<i>and</i>	a, one	27
<i>girmawi</i>	majesty	27
<i>TeyyeKe</i> (IB)	ask	26
<i>nebbere</i> (IA def.)	was	25
<i>isport</i>	sport	25 (English loan)
<i>fellege</i> (IB)	want, search, for, seek	25
<i>kifil</i>	room, section, etc.	24
<i>gebbu</i> (II1A)	enter; (used impersonally: understand)	24
<i>hizb</i>	people	23
<i>-m</i>	and, also	23
<i>kezzih</i>	from here	23
<i>yuniversiti</i>	university	23 (English loan)

TRANSCRIPTION	GLOSS	FREQUENCY
<i>federešin</i>	federation	23 (English loan)
<i>feSSeme</i>	finish, come to an end	23
<i>miknyat</i>	reason, cause	22
<i>bahil</i>	custom, culture	22
<i>a-zegajje</i> (ac-*V2)	prepare	22
<i>higg</i>	law	21
<i>serra</i> (III1A)	do, make, work	21
<i>te-melekkete</i> (t-IV)	look at	21
<i>assebe</i> (IBa-)	think	21
<i>a-kebbere</i> (a-IA)	respect, honor, celebrate	21
<i>keffiteñña</i>	high	21
<i>Kerre</i>	remain	20
<i>ahun</i>	now	20
<i>wede</i>	to, toward	20
<i>yiggebbal</i>	should be, ought to be	20
<i>dañña</i>	a judge	20
<i>hulett</i>	two	19
<i>messele</i> (IA)	seem, resemble	19
<i>timhirt</i>	lesson, education	19
<i>fabrika</i>	factory	19 (Italian)
<i>prezidant</i>	president	19 (French)
<i>menged</i>	street, way, method	18
<i>bezzih</i> (= <i>bezzihu</i>)	in this, at this place, because of	18
<i>te-Cawwete</i> (tc-*IB)	play	18
<i>as-redda</i> (as-III1A)	explain	18
<i>hassab</i> (= <i>assab</i>)	idea, opinion	17
<i>merreTe</i> (IA)	choose	17
<i>meseret</i>	foundation, base	17
<i>ministir</i>	minister	17 (French)
<i>set</i>	woman	17
<i>assir</i>	ten	17
<i>TebbeKe</i>	keep, watch (IB)	17
	become tight (IA)	
<i>be-hwala</i>	after	16

TRANSCRIPTION	GLOSS	FREQUENCY
<i>bet</i>	house	16
<i>neggade</i>	trader, merchant	16
<i>nigid</i>	commerce, business	16
<i>jemmaere</i> (IB)	start, begin	16
<i>mekina</i>	car, vehicle	15 (Italian)
<i>sibseba</i>	meeting, assembly	15
<i>be-lay</i>	on, upon	15
<i>te-bale</i> (t-III1 irr.)	be said, named	15
<i>ayye</i> (II2Aa-)	see	15
<i>aynet</i>	kind, type	15
<i>weyim, weyis</i>	or (-s with question)	15
<i>wale</i> (III1)	spend the day	15
<i>wanna</i>	main, principal	15
<i>yaze</i> (III1)	catch, seize, hold	15
<i>feKad</i> (= <i>fiKad</i>)	permission	15
<i>fird</i>	justice	15
<i>meTen</i>	capacity	14
<i>meTTa</i> (III1A)	come	14
<i>te-kettele</i>	follow	14
<i>neger</i>	thing, matter, speech	14
<i>ammist</i>	five	14
<i>andand</i>	one, a certain, some	14
<i>addere</i> (IAa-)	stay overnite	14
<i>waga</i>	price, credit	14
<i>wiCCi</i>	outside, foreign	14
<i>zena</i>	news	14
<i>dirijjit</i>	organization	14
<i>TiyyaKe</i>	a question	14
<i>meri</i>	leader, guide	13
<i>mister</i>	Mr.	13 (English)
<i>minister</i>	ministry	13 (French)
<i>semma</i> (III1A)	hear	13
<i>serrateñña</i>	worker	13
<i>budin</i>	team	13
<i>birr</i>	dollar, silver	13
<i>bicca</i>	only	13

TRANSCRIPTION	GLOSS	FREQUENCY
<i>tesfa</i>	hope	13
<i>te-gebbā</i> (t-III1A)	get married	13
<i>allebbet</i>	ought to, must, should	13
<i>wədəfit</i>	forward	13
<i>-gar</i>	with	13
<i>meremmers</i> (IV)	examine, investigate	12
<i>mesriya bet</i>	bureau, office	12
<i>mekakkəl</i>	middle, center, be- tween	12
<i>be-te-leyy</i>	especially, particu- larly	12
<i>be-nafKot</i>	eagerly, longingly	12
<i>ballefiw</i>	on, in the past	12
<i>tallaK</i>	great	12
<i>naccew</i>	they are	12
<i>a-Kome</i> (a-III3)	post, stop	12
<i>indihum</i>	also	12
<i>ikkul</i>	equal, half	12
<i>wəTTa</i> (III1A)	go out, up	12
<i>dəggefe</i> (IB)	support (tr. v.)	12
<i>gin</i>	but	12
<i>program</i>	program	12 (loan)
<i>lela</i>	other	11
<i>mejemmeriya</i>	beginning, first	11
<i>min</i> (= <i>mindin</i>)	what?	11
<i>mikittiil</i>	sub-, vice-, assistant	11
<i>ras</i>	head; oneself; a high title	11
<i>sammint</i>	week	11
<i>keTTele</i> (IB)	continue (tr. v.)	11
<i>KuTir</i>	number	11
<i>KoTTere</i> (IAO ¹)	count	11
<i>te-naggers</i> (tC-IA)	speak	11
<i>tinant</i>	yesterday	11
<i>a-geleggele</i> (a-*IV)	serve (tr. v.)	11
<i>iKa</i>	goods, material, furniture	11

TRANSCRIPTION	GLOSS	FREQUENCY
<i>ketema</i>	city, town	11
<i>wend</i>	male	11
<i>wididdir</i>	competition	11
<i>huneta</i>	state, condition	10
<i>meto</i>	hundred	10
<i>mikir bet</i>	Parliament	10
<i>Kedamawi</i>	the first, one who pre- cedes	10
<i>be-fit</i>	before	10
<i>te-Kebbəl</i> (t-*IB)	receive	10
<i>te-KoTaTTere</i> (t-IV)	control, conduct	10
<i>te-nessa</i>	stand, rise	10
<i>te-dessete</i> (t-*IA)	be happy, enjoy	10
<i>cilota</i>	ability	10
<i>a-meseggene</i> (a-*IV)	thank	10
<i>ammene</i> (IAa)	believe, trust	10
<i>ato</i>	Mr.	10
<i>agelgilot</i>	service	10
<i>iCCu</i>	candidate	10
<i>yahil</i>	approximately	10
<i>yihin</i>	this one	10
<i>geTTeme</i> (IA)	compose poetry; match, bring to- gether, challenge	10
<i>gazeTeñña</i>	journalist	10

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December, 1972

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REGULAR METATHESIS IN GIDOLE

Metathesis is a permutation of the sequential ordering of sounds. Very often this occurs as a sporadic phenomenon in language, as in the case of the development of Spanish *palabra* 'word' from Latin *parabola* or the often cited pronunciation of English *irrelevant* as *irrevelant*. In the histories of some languages, however, metathesis has occurred as a regular sound change, extensive in application and subject to precise formulation. Cases of regular metathesis include the metathesis of liquid and vowel in most Slavic languages (e.g., producing Old Church Slavic *gradŭ* 'city' from an earlier **gordŭ*), the distant metathesis of *t...s* to *s...t* in the Philippine language Ilocano (e.g., compare Tagalog *tavis* with Ilocano *sa'vit* 'weep'), and the morphophonemically operative metathesis of consonant and vowel in Rotuman, another Austronesian language (e.g., *hula* 'moon' becomes *hual* in the 'incomplete phrase'). These examples are from Antilla (1972: 62—3, 75).

Various and scattered examples of metathesis are often found in the Cushitic languages of northeastern Africa. Indeed, in the Highland (or Burji-Sidamo) branch of Eastern Cushitic, an example of quite regular and morphophonemically operative metathesis is found. In these languages, as in the bulk of the Cushitic languages, first person plural verbal suffixes characteristically begin with *n*: e.g., Sidamo *u-* 'to give', *u-nómmo* 'we gave'; *hun-* 'to exterminate', *hun-nemmo* 'we exterminate'. Whenever the verb stem ends in a consonant which is neither a liquid (to which the *n* assimilates) or a nasal, however, metathesis, sometimes accompanied by other morphophonemic change, occurs: e.g., Si-