

# Analytical Syntax for Teaching English (11)

## —a non-native approach—

Kan KATAYANAGI\*

September 1981

### 10.1 Sample Lexicon for Nouns

More than obviously the nouns, in any language apparently, are the most distinctive and paramount group in the vocabulary both internal and external. To define 'noun' as such can never be final and yet grouping words by that index in contrast to other types of words is not too confusing a task for any mentality. As a matter of fact when a child is asked what words he or she knows, the majority that the child cites are nouns even though the child cannot define or distinguish<sup>1)</sup>. To children especially the nouns represent, or even 'present' itemized reality in and around. Nouns to adult mentality represent the static phase of language as contrasted to its dynamic phase, the operation in the formalism of the language involved.

Proportion-wise, nouns outnumber all the rest. Among the first 1,000 most frequently used words of the Thorndike/Lorge inventory<sup>2)</sup>, 342 words are, to our calculation, nouns while the other 232 are commonly used as verbs too. On an extended level of vocabulary, say that of Gunji inventory<sup>3)</sup> containing 13,410 entries, more than 7,000 are nouns including a considerable number that are used commonly as verbs—far less of those as adjectives—, followed by some 2,500 verbs<sup>4)</sup> and some 2,000 adjectives—including antonyms formed by 'in-' or 'un-' prefixes<sup>5)</sup>. This does not, of course, imply that any unit corpus of speech finds more than 50% to be nouns, yet the fact remains that the

---

\* continuation from the preceding number of the present publication.

1) 59% at the age of 6, followed by 17.6% verbs and 8% adjectives at the vocabulary level of 5,448-5,661 words, as quote by S. Fukuyama in pp. 10-11. 『幼児の言語』, INFANT LIBRARY, from R. Kubo 1922.

2,3) *ibid.*

4) Table 1, section 9.7.

5) Table 4, 5, section 9.5.

ponderosity of the nouns in vocabulary is undeniable. Syntactically, the fact reflects that the alleged universal clause pattern is, in no matter what language, NP+VP+NP+prep.+NP, order *mutatis mutandis*, where NP fills three positions out of the five.

For our pedagogical purposes, however, we are here compelled to formulate the mass called 'nouns' into a clear-cut, teachable system geared to the calls from syntax (rather than to the structure of the items in the semantic realm.) The relative position of nouns among other classes of words is one thing while the classification of nouns into sub-sections is another and we shall first consider the latter.

Various schemes of sub-classification of nouns have been done and established for the sake of classification, e. g., into proper nouns, common nouns, material nouns, etc., all depending on features and meaning of words themselves. The countable/uncountable contrast is another bearing closer correspondence to grammar, but the distinction is still by the nature of the referents at each use. This is synonymous to say that if one knows what the 'thing' is then he knows automatically to what kind of noun its name belongs—a tautology neither defining nor determining the status of words in the linguistic system it belongs to. Thus organizing a lexicon of nouns towards syntax is not as imminent as is that of verbs and classes of function words. Educationally speaking, whether for a native language or a foreign language, the semantic association will prove the most efficient and spontaneous procedure for a better command of vocabulary items, nouns in particular. And since syntactic orientation is more or less subsidiary in the case of nouns, we are here to present an after-thought, a hint to the latent consistency, if any, between and among the members of each peer-group at given levels of sub-classification. Thus what is to follow is an arbitrary example of regimentation of the words themselves with a hope that it might reveal some syntactical consistency or tendency.

Instead of presenting the whole lexicon of nouns<sup>6)</sup> from 'a' to 'z' perhaps, let it suffice with those nouns ending in 't' sound at the level of vocabulary with 13,000 words, i. e., the Gunji Inventory again. Table 1 enlists the nouns ending in single consonant 't' while Table 2 contains those ending in multiple consonant cluster ending also in 't' sound. The first column of each table contains those mono-syllabic words; the second those bi-syllabic nouns that cannot be dissected while the third those that can be

---

6) to be published elsewhere.

segmented into etymological members. The fourth column enlists polysyllabic nouns of various make; the next to the last column is for those grammatical formations in noun and adjectival prefixation; and the last column contains both ready-made and ad hoc collocations of independent words forming unit nouns. The distribution is given in Fig. 1, below, where figures are our count, including overlappings between and among the members, the percentage is that of t-ending nouns against all the nouns belonging to the kind, the last entry is a tentative count of all the nouns of Gunji Inventory for a contrast.

Fig. 1

	mono-syllabic	bi-syllabic		poli-syllabic	phrasal (adj × n.)	compound	Total
		type <i>a</i>	type <i>b</i>				
Nouns of Table 1	141	107	21	67	21	68	425
Nouns of Table 2	151	116	53	214	13	34	581
Total	292 (16.3%)	297 (18.3%)		281 (9.6%)	136 (14.9%)		1,006 (14.2%)
All nouns of G-inventory	1,779	1,436	182	2,927	910		7,052

Note: type *a*: those whose first syllable is stressed, type *b*: those whose second syllable is stressed.

The hyphens attached to the head of words in the tables indicate that the noun is primarily used as verb and those attached to the tail indicate that the noun is secondarily—more or less—used as verb, while arrows indicate similar relationship of the noun to its adjectival uses. The dots segmenting words indicate affixation of either segment to the other. The collocated members of each compound noun are all hyphenated regardless of the orthographic conventions, thus not 'space suit' but 'space-suit', etc. Etymological affixes, if not evident or distinct, are not indicated, e. g., not 're-port' but 'report', not 'moth-er' but 'mother' etc. Some adjustment had to be made, e. g., entering 'debt', 'receipt' etc., parenthetically in Table 2 while they duly appear in Table 1 disregarding the orthographical 'b' and 'p', etc.

The sequence of the columns from left to right represents the adding degree of internal complexity of the words, from primary nouns to un-hyphenated phrases through amalgamated compounds. Noun-indicating morphemes such as '-ist', etc., appear only from the second column. Most conspicuous of those are patent noun-forming suffixes,

notably in Table 2 we have ‘-ist’, ‘-ant’ and ‘-ment’ totalling 255<sup>7)</sup>. These are close to grammatical derivations (e. g., verbs into gerunds) and transfers (e. g., noun used ad hoc as verbs) and open the ways to general free collocations. Most of the intellectual vocabulary items are generated through these synthetic procedures while the primary word, mostly mono-syllabic, are to be learned by rote or by situation bound imprinting, or by sheer virtue of memory in the case of foreign learners. The compound nouns are mostly self-explanatory as the members retain identity. Relative simplicity or parsimony of words for which English is known among other languages owes very much to the broad freedom with which derivation and transfer take place and to the serial clustering unlimited which often astounds foreign learners.

Grading of nouns according to the priority, beyond a certain number of very common items, will be more of the matter of practical utility expectancy rather than that of linguistic efficiency; in other words, it tends to be semantic rather than syntactic. Nouns tend to be items to learn rather than to be taught and the sample lexicons given in Table 1 and 2 might help the teaching as well as the learning party to gain a perspective over the vast population called nouns with at least some measure of linguistic coherency.

---

7) Gunji Inventory includes, beyond the above-said t-ending nouns, the nouns with noun-forming suffixes -hood 15, -ing and ings 171, -ship 29, -graph 6, -ance 71, -ence 78, -tude 18, -age 39, -phone 6, -scope 2, -cy 60, -ve 27, -al 61, -sm 63, -ness 197, v+er 244, n+er 75, n+or 66, v+or 25, -ty 162, -y 13, -sion 80, -tion 515, adj+man 7, n+man 66, -teen 7, totalling 2,100 varieties.

**Table 1** Inventory of nouns ending in **t** sound

vowel before <b>t</b>	mono-syllabic	bi-syllabic	bi-syllabic (segmentable)	poli-syllabic	adj. X noun	collocational	
æ	chat						
	<b>Cat</b>				wild-cat		
	<b>Hat</b>						
	+fat						
	vat						
	-pat						
	bat	combat					
	<b>bat-</b>				acrobat		
	<b>mat</b>	format			auto-mat diplo-mat		
	gnat						
	<b>rat</b>				aristo-cr demo-cr techno-cr beauro-cr proletari secretari appetite parasite		
	ai	sight-					
site							
height							
<b>kite</b>							
<b>fight-</b>							
spite							
-bite							
<b>might</b>							
<b>Night</b>							
			respite			in-sight over-sight	eye-sight
							frost-bite
					dynamite		
			fort-night				



strait						
-grate						
Rate-		first-rate		birth-rate		
freight				death-rate		
-Wait						
Weight						
eight->						
debt						
-set						
	asset		candidate			
	russet		out-set	sun-set		
	<b>closet</b>		thick-set			
	gazette		-up-set	water-closet		
	hatchet					
	gadget					
	budget					
	<b>Basket</b>					waste-basket
	musket					
	<b>market</b>					
	Blanket					
	banquet					
	<b>jacket</b>	pack-et				
	bracket	<b>rack-et</b>				
	<b>Ticket</b>	thick-et				
	cricket					
	wicket					
	socket					
	<b>Pocket</b>					
	<b>rocket</b>					
	Bucket	lock-et				pick-pocket
	(bouquet)					air-pocket
						sky-rocket

	(bufet)		deleg·ate
	target		agg·reg·ate
	prophet	Priv·ate	epithet
	velvet		
	trumpet		
	carpet		
	puppet		
	comet		
	helmet	clim·ate	
	<b>Planet</b>		<b>Alphabet</b>
	magnet		-anim·ate
	senate		-estim·ate
	sonnet		-design·ate
	bonnet		-subordin·ate
			-coordin·ate
			bayonet
			cabin·et
			marionette
	scarlet	brunnette	
	<b>violet</b>	pamph·let	
		brace·let	
		ham·let	
	toilet	tabl·et	rivul·et
	wallet	tripl·et	
		isl·et	
	bullet	(ball·et)	chocolate
	-regret		consul·ate
	portrait-		magistr·ate
	threat		-federate
			con-federate
			drag-net



sweat-	(beret) garret turret	(cabaret) Cigar·ette -associ·ate +inter·medi·ate gradu·ate silhouette etiquette	under-graduate
Poet duet	diet quiet	Soviet	
	credit-	transit	deficit
	exit -visit		-re-visit -deposit +opposite +requisite +composite
skit kit	circuit biscuit		
-hit -fit	profit- forfeit-		benefit-
-spit pit Bit	pulpit orbit habit rabbitt		out-fit
whit mitt	Limit-		



Scot	mascot boycott- fagot bigot despot	apricot	ear-shot
<b>Spot-</b>			
Pot	abbot robot (depot) pivot- harlot		tea-pot
knot			<b>forget-me-not</b> touch-me-not
slot-	zeal·ot		
plot-	ball·ot		
blot-	<b>pil·ot</b>		
<b>lot</b>			
trot-	carrot	idi·ot	
-rot	parrot	patri·ot chariot	
drought	riot		
<b>Coat-</b>		anecdote	waist-coat
Goat			rain-coat
<b>boat</b>	scape·goat		steam-boat gun-boat whale-boat ferry-boat
-vote			
moat		over-coat petty-coat	
mote			
<b>Thought</b>		fore-thought	
<b>Note</b>			foot-note bank-note
nought			

key-note  
cut-throat

upper-cut  
short-cut

chest-nut  
wal-nut  
pea-nut  
daugh-nut  
coco-nut

space-suit  
law-suit

air-route  
deaf-and-mute

bare-foot  
out-put  
in-put

-float  
throat  
**-Cut**  
jut  
hut  
**nut**

(debut)

butt  
-strut  
rut

statute

ut

-sub•stitute  
-in•stitute  
-pro•stitute

soot  
**suit-**  
suite  
-shoot  
Boot

persuit

para•chute

repute-  
dispute-

-at•tribute  
-dis•tribute

flute  
**Fruit**  
brute  
**Root**

tribute-  
recruit-

route  
mute→  
-hoot  
**Foot**

u

au	-doubt <b>-shout</b> scout- -spout snout <b>trout</b> -sprout -rout	girl-scout boy-scout  set-out shut-out wash-out black-out knock-out lock-out look-out walk-out lay-out	141	98+ (4)	25+ (1)	66+ (1)	21	68
----	--	---	-----	---------	---------	---------	----	----

**Table 2** Inventory of nouns ending in consonant cluster ending in t sound

ending	mono-syllabic	bi-syllabic	bi-syllabic (segmentable)	poli-syllabic	adj. x noun	collocational
dst	midst←					
kst	←next text	con•text pre•text				
rst	thirst ←worst				out-burst	
st	cast				out-cast	tele-cast
ast	<b>-Fast</b> ← <b>Past</b> mast blast	repast bombast contrast	<b>Break•fast</b>		broad-cast fore-cast fore-mast	
irst	feast-			enthusiast		



gist	technolog·ist
	geolog·ist
	biolog·ist
	sociolog·ist
	zoolog·ist
	an·arch·ist
	mon·arch·ist
	drugg·ist
	pacif·ist
	escap·ist
	typ·ist
	optim·ist
	pessim·ist
	anatom·ist
	econom·ist
	modern·ist
	botan·ist
	organ·ist
	accompan·ist
	human·ist
	violin·ist
	femin·ist
	antagon·ist
	colon·ist
	revolution·ist
	opportun·ist
	commun·ist
	cycl·ist
	capital·ist
	journal·ist
	anal·ist
	lingu·ist
	chem·ist
	pian·ist
fist	
mist	
list	

annal-ist  
 national-ist  
 rational-ist  
 moral-ist  
 special-ist  
 social-ist  
 material-ist  
 ideal-ist  
 novel-ist  
 militar•ist  
 satir-ist  
 motor-ist  
 humor-ist  
 terror-ist  
 caricatur-ist  
 tour-ist

styl-ist

real-ist

wrist

flor•ist  
 theor•ist

Twist-

Christ

taste-

haste-

-paste

-Waste

toast-

coast

ghost

-roast

Post-

cost-

host-

frost

dust-

aist

eist

oust

ost

ast

Tooth-paste

sea-coast

guide-post

saw-dust

-exhaust  
 locust



	gust	disgust	
	bust	August	
	lust		
	-trust		
	crust-		
	thrust-		
	rust-		
nkt		precinct	
		instinct	
kt	<b>Fact</b>		
akt	pact	im·pact	
		←com·pact	
	tract		cataract
	act-		archi·tect
ekt	sect	<b>Insect</b>	
		effect	
		defect	
		ob·ject	
		<b>sub·ject</b>	
		pro·ject	
		in·spect	
		a·spect	
		<b>re·spect</b>	self-respect
		pro·spect	retro·spect
		su·spect	
		intellect	
	-neglect		
	<b>dialect</b>		
	verdict		
	-convict		
	conflict-		
	district		
	conduct-		aque·duct
ekt			

aft	shaft draft (draught) craft	product	by-product	air-shaft  space-craft witch-craft air-craft anti-air-craft
eft	raft -waft theft left→ -sift -shift gift -lift drift thrift		handi-craft	
ift	loft tuft			snow-drift
mpt		con•tempt -At•tempt con•script		
pt	script			manu•script post•script
ept	(debt)	pre•cept con•cept (receipt) <b>Egypt</b> instant		
ipt				
ipt				
ant				
		bank•rupt		contest-ant Protest-ant assist-ant +expect-ant consult-ant

			+milit•ant disput•ant combat•ant command•ant attend•ant defend•ant
		pend•ant	
	phesant <b>peasant</b> <b>merchant</b> infant	elephant <b>Serv•ant</b> claim•ant	applic•ant particip•ant occup•ant lieu•tenant covenant
chant• -pant	tenant remnant	+ruminant conson•ant	
			stimul•ant assail•ant remonstr•ant e•migrant i•migrant aspir•ant itinerant+ vari•ant (restaurant)
<b>plant•</b> slant• grant•	+galant +vagrant +migrant warrant• tyrant <b>giant</b>		
<b>ant</b> <b>-want</b> tent•	+truant extent +patent intent•+		

self-content

dis-content  
respond-ent  
co-respond-ent  
preced-ent  
antedec-ent  
**accid-ent**  
incid-ent  
co-incid-ent  
super-intend-ent

content

dent-

**Student**  
accent-  
concent-  
ascent  
assent-  
descent  
-dissent  
crescent  
-**Present**→  
sergeant  
pageant  
agent  
convent  
event  
serpent

cent  
scent

re-solv-ent

solv-ent

vent-

←Bent-

en-list-ment  
in-vest-ment  
ad-just-ment  
en-chant-ment  
con-tent-ment  
dis-con-tent-ment  
ap-point-ment

oint-ment

dis·ap·point·ment  
 en·act·ment  
 A·part·ment  
 com·part·ment  
 de·part·ment  
 ex·cite·ment  
 a·bate·ment  
 al·lot·ment  
 command·ment  
 a·mend·ment  
 bomb·ard·ment  
 commencement  
**an·nounce·ment**  
 pro·nounce·ment  
 en·dorce·ment  
 en·force·ment  
 em·barrass·ment  
 en·tice·ment  
 in·duce·ment  
 advert·ize·ment  
 amaze·ment  
 amuze·ment  
 accompl·ish·ment  
 establ·ish·ment  
 em·bel·lish·ment  
 re·fresh·ment  
 ban·ish·ment  
 at·tach·ment  
 de·tach·ment  
 en·rich·ment  
 e·strange·ment  
 state·ment  
 treat·ment  
 parch·ment

	en • largement		
	en • couragement		
	dis • couragement		
	management		
	ac • know/edgement		
	engagement		
	a • bridgement		
	em • bank-ment		
		judgement	
frag • ment			
seg • ment			
aug • ment			
	pavement		
	<b>movement</b>		
	breavement		
		ship-ment	
	achievement		
	escapement		
	equip-ment		
	De • velop-ment		
	en • light • en-ment		
	dis • cern-ment		
	con • cern-ment		
	a • dorn-ment		
	ad • journ-ment		
	<b>Govern-ment</b>		self-govern-ment
	con • sign-ment		
	as • sign-ment		
	con • finement		
	re • finement		
	at • tain-ment		
	entertain-ment		
	abandon-ment		self-abandon-ment
	im • prison-ment		
	environ-ment		

imple·ment  
comple·ment  
supple·ment

curtail·ment  
de·rail·ment  
ful·fill·ment  
con·ceal·ment  
in·stall·ment  
en·roll·ment

gar·ment  
fer·ment·  
tor·ment·

better·ment  
wonder·ment  
con·fer·ment  
de·fer·ment  
pre·fer·ment  
re·tirement  
re·quirement  
a·quirement  
pro·curement  
al·lurement  
measurement  
testa·ment  
dis·arma·ment  
arma·ment  
firma·ment  
taurna·ment  
orna·ment  
sarcra·ment  
fila·ment  
**parlia·ment**

la·ment·

	ce-ment	pay-ment	ele-ment re-pay-ment <b>agree-ment</b> pre-senti-ment senti-ment im-pedi-ment rudi-ment regi-ment ac-compani-ment compli-ment nutri-ment merry-ment
	co-ment- <b>mo-ment</b>		docu-ment arguement Instru-ment un-em-ploy-ment em-ploy-ment en-joy-ment en-dow-ment <b>Conti-ment</b> +compo-ment oppo-ment equi-val-ent repell-ent ad her-ent
	talent		
rent	<b>Parent</b> ←current client patient Orient	grand-parent under-current	air-current
taint-		out-patient	
<b>sint</b>		constitu-ent	







ort						
	expert					
	-retort					
	-resort					
sort-						
Quart						
court-	-escort					
	<b>comfort-</b>					dis-comfort
fort	effort					
	purport					
<b>sport</b>						
				-ex·port		
				Trans·port		
				im·port		
port	<b>-report</b>					pass-port
snort	-Support					sea-port
						self-support
	149+(2)	115+(1)	53	213+(1)	13	34
<b>TOTAL for Tables 1 and 2</b>						
	290+(2)	213+(5)	78+(1)	279+(2)	34	102

996+(10)-3(debt, receipt, draught), or 1,006-3  
 Notes: Bi-syllabic words are here arranged not for types *a* and *b* but by segmentable or otherwise.  
 Words in bold face are those found among 2,600 of Kakita/Miura Inventory (ibid).

## 10. 2 Total lexicon

We have too long been away from the main theme of syntax and come thus far into particulars of lexicon, or 'purposeful re-organization of vocabulary items coordinated to the syntax—a syntax more or less arbitrarily tailored to stand to the reason of any non-native adult learners of a natural language called English'. What has been proposed was not always practical and more often, in spite of the intention, it was even paradoxical not only in tone but also in actual applications. Before we go back to the main discussion of 'analytical syntax' towards its conclusion, we must bring together those severally presented sample lexicons and venture to come to some conclusive observations and suggestions.

The vocabulary of a language, as that of an individual, apparently has at its core a primordial group of words enough in number and kind with which to manage the situation. The 250 function words of Table 2 of the foregoing section 9.4 are such ones English inherited diachronically from its ancestral stem, so frequently used and so elemental that they survived the wears and oblivion in the flux of language and are still at the hub of the language, and to them there seem to be no substitutes to come as yet. These fit into the upper, that is, the closed set section of the second degree lexicon of Table 1 of the section 9.3. The lower section is divided among the four major classes, i. e., Nouns, Verbs, Adjectives and Adverbs, in that order side by side, each containing indefinite number of members. Now, instead of plotting the whole affair into a square, we could fit it into a concentric or spiral field and supply the real distribution of relevant words into the respective areas and see how it looks. Suppose we put the first 1,000 most frequently used words of the Thorndike/Lorge Inventory into a disc. The result will be what we see as the inner disc of the Fig. 2 below, where we find to its center the 121 (or more) of the function words, 342 Nouns, 232 noun/verbs, Verbs 114, 14 verb/adjectives, 113 Adjective, 47 adj./advs., 39 Adverbs in counter-clockwise order—for convenience's sake the figures are re-divided as 458 for Nouns, 237 for Verbs, 144 for Adjectives and 62 for Adverbs halving the straddling portions between the adjacent major classes evenly. Then, for comparison, we overlap another vocabulary of an expanded scale, i. e., that of 13,000 words of Gunji Inventory as expressed by the outer disc with corresponding sectorial divisions. We see it obvious that the expansion in size of the vocabulary takes place without much shift in mutual proportion between

and among the classes with perhaps the nouns gaining slightly over the others being excepted.

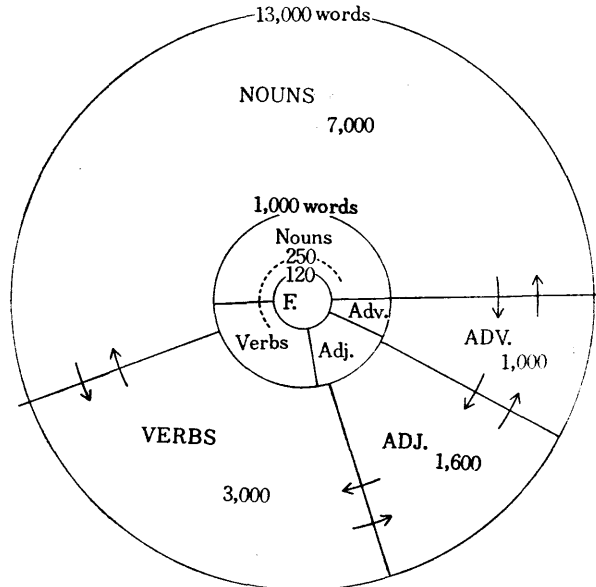


Fig. 2

The appendix provides the actual distribution of the nouns for the smaller disk of Fig. 2. containing the above-said Thorndike/Lorge's first 1,000 most frequently used words with some 120 function words and some 80 conjugational variants of verbs and adjectives being eliminated while some 20 words are repeated when their uses overlap beyond the next column, as indicated by arrows ( $\rightarrow$  or  $\leftarrow$ ). The words beginning with capital letter stand for those words included in Gibson/Richards' *English Through Picture Bk. 1* and 2<sup>8)</sup> which also limits its vocabulary to 1,200 words. Homonyms are indicated by suffixed numerals wherever possible. Obviously the inventory reflects the nature of the source material, American and juvenile, hence the inclusion of 'Washington', 'New York', etc. Vertical sequence is again ours, by the ending sound of each word with priority on consonants. Irregular conjugations are indicated where necessary in italics. The words in bold faces are again those of Kakita's 2,600 words.

At this point we might experimentarily incorporate another dimension into the site. If we call what is observed above as the entry-frequency phase of vocabulary, the third

8) *ibid.*

dimension might be called the text-frequency phase, the occurrence of each word added as weight or height.

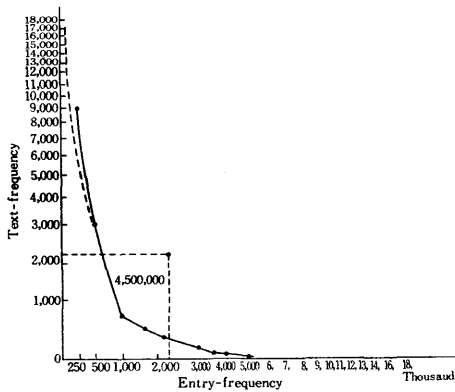
It is a common knowledge and experience that the words that are most frequently used are the least among others in number while those that appear the least are most numerous within a certain expanse of the vocabulary. The situation can be schematically expressed thus: to fill a corpus of text, spoken or written, of one million words with words that appear only once each will mean that there will be one million different words involved whereas if the same volume is accomplished by words of one million text-frequency it involves only one word appearing one million times. The reality, therefore, lies somewhere between these two extremities.

Part III of the Thorndike/Lorge Inventory gives a table (p. 249) carrying frequency distribution of 40,000 words appearing more than once in 4.5 million occurrences though it does not there give how many occurrences are attained by the first 500 most frequently used words. We can supply the relative figures from the table given in the Introduction of the same source and protract accordingly. The figures in Table 4 below are 'montaged' products where the thick figures are the ones directly obtained from the source while the thin ones are hypothetical values. Fig. 3 is a graphic expression of what is given in the table. The values are plotted over a logarithmic field. The height expresses at each entry count, i. e., the number of words so far learned, the efficiency or the merit of learning the words there; in other words, the acquisition of the 501st word is almost 4 times more effective than the 1,001st word learned, in proportion to the expected total appearance of these two words. There is obviously a region where the text-frequency count and entry-frequency count balance and where the learning of words is proportionately rewarding to the learner in view of expected appearance of any particular word in prospect, and beyond where it is the learner who has to choose which word or words to learn. We might set that point somewhere between 8,000 and 13,000 where the coverage reaches 97-98% or 2 to 3 unknown words to every 100 words.

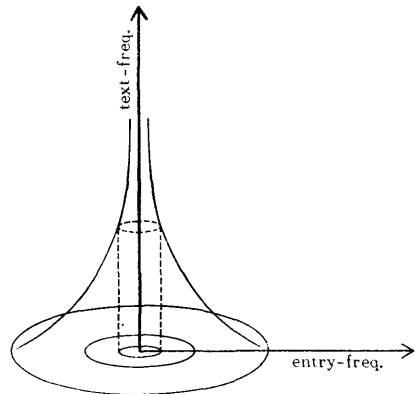
The curve of Fig. 3 near the focus is amazingly close to the theoretical hyperbole enabling us to protract the farther ends. If we add this profile onto the discs in the diagram of Fig. 2 above as its third dimension, we will get a funnel-like conoid somewhat like the one in Fig. 4 below, while we could express the same state of affairs on a two-dimensional plane by expressing the text-frequency as magnitude for each word.

**Table 3**

Cumulative entry-frequency	Average text-frequency	Total occurrence at levels	Cumulative text-frequency	Coverage (%)
40,000	1	2,000	4,500,000	100.0%
38,000	1	2,000	4,498,000	
36,000	1	2,000	4,496,000	
34,000	1	2,000	4,494,000	
32,000	1	2,000	4,492,000	
30,000	1	2,000	4,490,000	
28,000	1	2,000	4,488,000	
26,000	1	2,000	4,486,000	
24,000	1	2,000	4,484,000	
22,000	1	2,000	4,482,000	
20,000	4	4,000	4,480,000	
19,000	5	5,000	4,476,000	
18,000	6	6,000	4,371,000	
17,000	7	7,000	4,465,000	
16,000	8	8,000	4,458,000	
15,000	10	10,000	4,450,000	98.6
14,000	11	11,000	4,440,000	
13,000	12	12,000	4,429,000	
12,000	14	14,000	4,417,000	
11,000	16	16,000	4,403,000	97.8
10,000	18	18,000	4,387,000	97.4
9,000	28	28,000	4,369,000	
8,000	50	50,000	4,341,000	
7,000	57	17,000	4,291,000	95.3
6,000	57	57,000	4,234,000	
5,000	90	90,000	4,177,000	
4,000	115	57,500	4,087,000	90.8
3,500	130	65,000	4,029,500	
3,000	160	80,000	3,964,500	
2,500	200	100,000	3,884,500	86.3
2,000	350	175,000	3,784,500	
1,500	450	225,000	3,609,500	
1,000	700	350,000	3,384,500	75.2
500	3,034	758,500	3,034,500	67.4
250	9,103	2,276,000	2,275,750	50.5



**Fig. 3**



**Fig. 4**

We do not know clearly what we are to get from these symbolic expressions of the vocabulary and how are we to form a lexicon by which to teach or to learn **English** as a foreign language or perhaps as second language.



**APPENDIX** First 1,000 most frequently used words of Thorndike/Lorge Inventory (120 function words and 60 conjugated forms excluded) rearranged

ending	NOUNS	n/v	VERBS	v/adj	ADJs	adj/adv	ADVs
-kst						<b>Next</b>	
-rst						<b>First</b>	
-st		fast <sub>-2</sub>				<b>Fast<sub>-1</sub></b>	
	forest	<b>Past</b> →			<b>+Past</b>		
	<b>West</b> →	Interest	<b>Last<sub>-1</sub></b>			<b>Last<sub>-2</sub></b>	
		Rest				<b>+West</b>	<b>almost</b>
		cost					
		Post					
		Taste					
	<b>East</b> →	trust				<b>+East</b>	
	Fact	Act				<b>Just</b>	
-kt	object <sub>-1</sub>		object <sub>-2</sub>				
	subject		subject <sub>-2</sub>				
			expect				
	<b>Left</b> →	lift	Direct <sub>-1</sub>		Direct <sub>-2</sub>	<b>+Left</b>	
-ft		Attempt	except→		Soft		
-mpt		Plant			Important		
-nt		grant			pleasant		
		<b>Want</b>					
	cent	<b>Present</b> →				<b>+Present</b>	
	moment	movement				Different	
	Government						
	saint	<b>Paint</b>					
	(St.)						

-lt	Point Account Count Amount mount result salt felt-2 (debt) Art Heart effort	Point Account Count Amount mount result salt (doubt) <b>Start</b> Part report court Sort hurt	<b>Short</b>
-rt			
-t	<b>hat</b> <b>Right-1</b> → right-3 height <b>Night</b> knight <b>White</b> → state-1 <b>gate</b> <b>eight</b> → Weight Bit fit-1 <b>Minute-1</b> spirit <b>Meat</b>	<b>Right-2</b> write <i>bite</i> <i>fight</i> sight <b>Light-1</b> Date State-2 visit wait <b>Sit</b> fit-2 Seat	<b>←Right-1,2</b> <b>quite</b> Bright Straight <b>Light-2</b> <b>←White</b> <b>great</b> <b>←eight</b> <i>late</i>

-t	sweet+ <b>Street</b> shot lot debt  <b>Foot</b> <b>Fruit</b> boat	Heat <i>beat</i> Spot cut set market  suit Note <b>Coat</b> shout doubt Land <b>Hand</b>	Complete  Eat  forget Get Let Put	+sweet hot  minute-2  out  ←thousand	not yet
-nd	England thousand→ Island husband  Kind-1 <b>Friend</b> <b>Wind</b> pound-1 ground second-1 <b>World</b> <b>Child</b> gold <b>Field</b> bird third→	demand command <b>Stand</b> Mind End Sound-1  Cold→ <b>Hold</b>	Undertand Find Send spend pound-2	←thousand  Kind-2  sound-2 <b>Round</b> Second-2  wild +Cold Old  ←third	
-rd					
-ld					
-rd					

Word	Hard	Forward
Yard		
board		
lord		
outside		
Record		
side		
guide		
<i>ride</i>	<i>Bad</i>	
shade	<i>glad</i>	
Trade	<i>wide</i>	
<i>sprad</i>		
hundred+		
<b>Red+</b>		
<b>Bed</b>		
<b>Head</b>		
Lead-2		
god		
method		
period		
<b>Food</b>		
<b>wood</b>		
Blood		
<b>Road</b>		
Cloud		
Crowd		
chance		
<b>Dance</b>		
advance		
Experience		
add		
decide		
provide		
afraid		
<b>Red</b>	<b>← hundred</b>	instead
<i>Read</i>		indeed
include		
	<i>Good</i>	
	<b>← six</b>	<b>perhaps</b>
<b>six+</b>		
<b>Box</b>		
Distance		
France		
difference		

-ls	prince	Sense	once	
-rs	course	force	else	
-s	<b>Horse</b>			
	<b>Glass</b>	pass		
	<b>Grass</b>	<b>class</b>		
	ice	Price	nice	
	case	<b>Face</b>		
	Space	Place		
	race-1	race-2		
	Business	Dress		
	express-1	press		express-2
		guess		
	success			yes
	peace	Increase		
	Piece			
	Service	notice		
		practice		
		Office		
		kiss		
	<b>Miss-1</b>	promise		miss-2
	loss	<b>cross</b>		
	Purpose	<b>House</b>		close-2
	voice			
	<b>use</b>	produce		loose
				famous
	goods	Surprise		various
	Size			thus
-mz				<b>sometimes</b>
/dz				Wise
-z	<b>Mrs.</b>			realise
	clothes			

-sh	<b>Nose</b> <b>rose</b>	close-1 suppose raise <b>please</b> -1 use wish <b>finish</b> <b>Fish</b> rush	<b>lose</b>	<b>always</b> <b>please</b> -2
-nch	news British- <b>English</b> -  Inch French- <b>March</b> -1 Church	<b>fish</b> <b>Fish</b> rush Branch march-2 Touch <b>Watch</b> charge, Change	<b>rich</b>	←British ←English Fresh ←French
-sk	George <b>Bridge</b>	<b>Teach</b> <b>reach</b> <b>catch</b>	<b>rich</b>	<b>rich</b>
-nk	college Edge <b>village</b> Age <b>Page</b> Bank	Judge <b>Thank</b> <b>Drink</b> Milk Mark <b>Work</b>	<b>Large</b> Strange	<b>Large</b> Strange
-lk		Ask <b>Think</b>	<b>Dark</b>	<b>Dark</b>
-rk	New-York			

-k	Black← Back lake	Break	Like <sub>-1</sub> <i>Make</i> <i>Take</i>	←Black Like <sub>-2</sub> →
	Stick <sub>-1</sub> Public→ Neck Week		Stick- pick	Sick ←Public
	rock <sub>-1</sub> Book	stock Look Cook Walk Talk Smoke	<i>seek</i> <i>Speak</i> rock <sub>-2</sub>	
	spoke Bag leg Egg Dog Half <i>Life</i> <i>Wife</i> Safe <sub>-1</sub> Chief→ twelve→			big
-g				
-f		Laugh		
				Safe <sub>-2</sub> ←Chief ←twelve
-lv				Enough
-IV			Serve	
-v	five→	<i>drive</i> Wave <i>leave</i>	<i>Have</i> arrive save believe receive	←five

-th	Health Length strength <b>Month</b> <b>Earth</b> worth <b>north→</b> <b>mouth</b> <b>south→</b> Death Truth	Move <b>Love</b>	<b>Give</b> <b>Live</b> <i>prove</i>	forth  +north +south <b>Both→</b>	lip
-p	Help escape Shape Step trip ship <b>Sleep</b> Drop <b>Shop</b> <b>Stop</b> <b>Hope</b> Group	<b>Keep</b>	Deep	Up→	Farm
-b	Cup job <b>club</b>				
-rim					



-m	game	Arm	Warm	
	System	form		
	problem	storm		
	room	<b>Time</b>	<b>Same</b>	
	Home	<b>Name</b>		
		Stream		
		<i>dream</i>	Seem	
			<i>Become</i>	<b>Some</b>
			<i>Come</i>	
		return		modern
-rn		<b>Turn</b>		
		<i>Burn</i>	Learn	+American
-n	American+			
	can-1			
	<i>man</i>			
	<i>gentleman</i>			+human
	Human+	plan		+German
	German+			
	<i>Woman</i>			+Indian
	Indian+			fine-2
	Line			+nine
	nine+	fine-1		
		mine-1		
	Pain	gain		
		Chain	contain	
		remain	obtain	
		<b>Rain</b>	explain	plain
	Train-1		train-2	
	Skin		join	Thin
	scene			

mean					
<b>Green</b> →		<b>Clean</b>		<b>←Green</b>	
queen		<i>mean-2</i>			
<b>ten</b> →		<b>begin</b>		<b>+ten</b>	<b>again</b>
captain				Certain	<b>then</b>
<b>Mountain</b>				golden	
London				sudden	
<b>Garden</b>				Common	
Person		<b>Listen</b>			
Washington	<b>season</b>				
	reason			<b>seven</b>	<b>often</b>
<b>seven</b> →			<b>Open</b>		
heaven		happen		<b>Even</b>	
action	<b>Question</b>				
Direction					
Nation	<b>Station</b>				
position	condition				
ocean					
John	<b>Stone</b>				Alone
<b>Son</b>					
<b>Sun</b>	<b>Run</b>				
<b>one</b> →				<b>←one</b>	
opinion					
million→	Iron			<b>+million</b>	
<b>Kitchen</b>				Foreign	
<b>Town</b>					<b>Down</b>
<b>brown</b> →				<b>+brown</b>	
<b>Afternoon</b>					<b>soon</b>
<b>Thing</b>		<i>hang</i>			

Ring-1	ring-1	<b>Bring</b>	Long-2
Spring-1		<i>spring-2</i>	
Wing		<i>sing</i>	
King			
<b>Building</b>			
<b>Morning</b>			
<b>Evening</b>			
<b>Song</b>			
Middle	belong		
article	Long-1		
<b>Uncle</b>	battle		<b>Strong</b>
<b>People</b>	Circle		<b>Young</b>
<b>Table</b>	trouble		<b>Long-2</b>
			<b>Little</b>
			Single
			simple
			double
			Able
			Possible
			rea
			several
			General-2
			←material-2
			Natural
			←national
			special
			<b>Small</b>
			<b>Tall</b>
			<b>All</b>
<b>Girl</b>			
<b>Animal</b>			
General-1			
Material→			
national→			
<b>Ball</b>	<b>Fall</b>		
hall	call		
<b>Wall</b>			
<b>Mile</b>	<b>Smile</b>		
	Sail		
bill		fail	

-tl

-rl

-l



---

<b>ear</b>			
<b>Door</b>			
Floor			
<b>four</b> →			← <b>four</b>
shore			<b>poor</b>
war			
<b>Hour</b>			
<b>Flower</b>		lower	
<b>Sister</b>	master		
<i>mister</i>			
(Mr.)			
<b>Doctor</b>			
character		enter	
<b>center</b>			
<b>Winter</b>			
Quarter			
<b>Daughter</b>	matter		
<b>Letter</b>	<b>water</b>		
	wonder		
	shoulder		
	Order	consider	
	<b>Answer</b>		
officer			
sir			
Pleasure	Measure		
soldier	offer	suffer	
silver			
<b>River</b>	Cover	discover	
	favor		
Arthur			
<b>Father</b>		over	ever
		further	never
			rather

together

gather

Weather

**Mother**

**Brother**

**Paper**

member

neighbor

Farmer

**Summer**

corner

manner

**dinner**

Finger

dollar

Future

Nature

**America**

Idea

**Sky**

Fly<sup>-1</sup>

**Eye**

**Day**

**Today**

bay

May

valley

Gray<sup>→</sup>

Number

labor

honor

**Color**

**picture**

figure

**Try**

**Cry**

Supply

reply

Tie

**Lie**

stay

Pay

**Play**

remember

sure

Dry

**Fly<sup>-2</sup>**

Die

**Buy**

**Say**

lay

**High**

←Gray

**away**



i:	Story Mary Century	Carry marry	necessary	very
ɔ:	Tree Degree Sea knee saw-1 Law	Be agree See  Draw	Free	
u	Boy joy blue→  two→ due-1 Shoe	destroy enjoy  Do  continue	+blue True +two due-2 Few  New	too
ou	Chicago Window fellow yellow→ Tomorrow	Go Know follow Grow allow	ago no low  +yellow	also so
	342	114	113	47
	232	14	113	39
458	237	144	62	62
NOUNS	VERBS	ADJs	ADVs	ADVs
TOTAL 901 (88 repeated)				