The English Vocabulary of 21 Japanese Adults on a High Proficiency Level

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In a recent article entitled "How Large Can a Receptive Vocabulary Be?" (Goulden, Nation, & Read, 1990), the authors discuss the methods employed in designing tests for the measurement of English vocabulary of native speakers in New Zealand. Since the methods differ from the more common ones, such as multiple choice tests, it may be worthwhile to examine their procedures of test construction and to consider the possibility of adaptations for the measurement of the English vocabulary of Japanese speakers of English. After an explication of their methods of test design, a pilot project with 21 Japanese adults, with at least a moderately high levels of proficiency in English, was carried out in order to study the test results and reactions. The base vocabulary size scores made by the subjects ranged from 4,900 to 12,100 with a group average of 7,770, while for 20 native speakers in the New Zealand study "average scores on the five tests ranged from 13,200 to 20,700 with a group average of 17,200" (Goulden et al., 1990, p. 358). Lists included in this article show sample tests which enable readers to replicate the study.

21人の日本人英語堪能者の英語語彙調査

Applied Linguistics 1990. Vol. 11, No. 4に英語ネイティブ・スピーカーの受容語彙数算定を狙いとするテスト開発並びに20人の大学卒業被験者へのテスト結果を報告する論文が掲載された。本稿ではその内容を概括・吟味し、併せて、筆者を含む21人の英語教師を中心とする日本人英語堪能者への同一テスト実施結果を分析・検討するのが目的である。

"Base Word" 基準ではあるが、被験者21人の英語認識語彙数範囲は4,900～12,100、又、そのグループ平均は7,770と云う相対的に低い結果が得られた。

1. Introduction

An important aspect of language acquisition was recently addressed in an informative and interesting article entitled "How Large Can a Receptive Vocabulary Be?" (Goulden, Nation, & Read, 1990). The study is informative in that, with methodological precision and appropriate precautions, it explored and determined the vocabulary size of adult native speakers of English. The paper is of interest not only to vocabulary specialists but also to ordinary teachers of English as a second language, and to Japanese learners and teachers of English alike in that it contains vocabulary size tests which provide

an opportunity to estimate the potential size of an individual's English vocabulary. Such being the case, it is meaningful and worthwhile to report on the author's attempts to estimate the potential size of his English vocabulary resulting from his 31 years of English study and 15 years of English teaching. Accordingly, the substance of the Goulden et al. (1990) study is presented in Section 2, followed in Section 3 by Diack's (1975) testing and assessment procedure explained by Goulden et al., and then in Section 4, an investigation into the estimates of the author's vocabulary size. Finally, the results of the Goulden et al. tests taken by 20 Japanese who are all proficient in English are given in Section 5.

2. Substance of the Study

The aim of the Goulden et al. (1990) study was to develop a method for determining the potential size of an average native speaker's receptive vocabulary. In order to accomplish this, they attempted to overcome methodological problems involved in previous studies of vocabulary size which were based on dictionary sampling, and to find satisfactory solutions for the following three questions: (a) "How do we decide what to count as words?" (b) "How do we choose what words to test?" and (c) "How do we test the chosen words?" (p. 343).

In order to make more realistic estimates of vocabulary size on the basis of the number of words in a dictionary, they classified English words into the following categories (p. 345):

1. Base words: "A corresponding base word must occur as a main entry in the dictionary. . . . A word was classified as a base word if it was the least inflected form of a group of related words. . . . When there was a choice between items of roughly similar length or inflection then nouns or verbs were counted as the base rather than adjectives or adverbs. . . ."
2. Derived words: "Derived words are defined generally as words which require minimal extra learning. . . . The meaning of the derived word must be clear from the meaning of the parts that make up the word or involve the minimum of extra learning. . . . Irregular inflectional forms are included as derived words. . . . Words consisting of common prefixes . . . attached to base words are marked 'derived.'"
3. Proper words: "Proper words are those in which the dictionary indicates as being usually, often, or sometimes capitalized."

4. Compound words: "Compound words consist of two or more words separated by a space or a hyphen."
5. Others: "'Others' include symbols, prefixes and suffixes, letters, abbreviations, alternative spellings, archaic words, and dialect words."

Thus, for example, "write" would be classified as a base word, "rewrite" as a derived word, "Bible" as a proper word, "writing desk" as a compound word, and "w" under "others."

The following results were obtained from three spaced samples of *Webster's Third International Dictionary* (1961), chosen by the authors "because it is the largest non-historical dictionary of English" (p. 344).

Table 1.
Results of Three Spaced Samples of *Webster's Third*

Classification	Sample 1	Sample 2	Sample 3	Total
Base	164 (22.7%)	181 (22.8%)	147 (26.1%)	492 (23.9%)
Derived	201 (27.9%)	227 (28.6%)	156 (27.8%)	584 (28.1%)
Proper	61 (8.5%)	50 (6.3%)	60 (10.7%)	171 (8.5%)
Compound	223 (30.9%)	252 (31.8%)	147 (26.1%)	622 (29.6%)
Others	72 (10.0%)	83 (10.5%)	52 (9.3%)	207 (9.9%)
Total	721	793	562	2,076

(Goulden et al., 1990, p. 347)

In order to translate the percentages from the samples in Table 1 into general estimates of the number of Webster's Third entries in each category, they utilized two outside estimates. First, although "the preface to the dictionary says that it has a vocabulary of over 450,000 words" (p. 344), "if same line entries are excluded, the dictionary [according to the Dupuy (1974) study] contains around 267,000 entries" (p. 345). Second, since "Thorndike (1924) and Williams (1932) found that the failure of vocabulary researchers to take account of homographs was a major sampling error in vocabulary size estimates" (p. 344), they had to determine what proportion of the total entries in *Webster's Third* would be subsequent homographs. The figure of 15 per cent, the estimate found in the Goulden (1984) study, was used for this calculation. By the use of the two confirmed estimates, namely, 267,000 entries and 40,050 subsequent homographs (i.e., 15 per cent of 267,000), Goulden et al. (1990) transformed the figures in Table 1 into the proportions and totals of the classified word types in *Webster's Third* given in Table 2 below.

Table 2.
Proportions and Totals of Types of Entries in *Webster's Third*

Word Type	Estimated Number of Entries	Percentage of Entries
Base	54,241	20.3
Derived	63,773	23.9
Proper	19,291	7.2
Compound	67,177	25.2
Others	22,468	8.4
Subsequent Homographs	40,050	15.0
Total	267,000	100.0

(Goulden et al., 1990, p. 348)

For the preparation of vocabulary test samples, Goulden et al. (1990) decided to exclude derived words, proper words, compound words, and a variety of items classified under "others" from their test list.[1] An estimate of 54,241 base words in the whole dictionary is given in Table 2. A one-percent sample of the base words should contain 542 words; however, Table 1 shows that there is a total of 492 base words obtained from the three samples. Therefore, Goulden et al. (1990) selected 50 more base words by means of spaced sampling and added them to the list for the development of a one-percent sample of the base words in *Webster's Third.*

In order for the list to contain a suitable number of high frequency words, they examined the number of words in the list which appeared in Thorndike and Lorge's (1944) word frequency list. Based on their analysis of a one-percent sample of the Thorndike and Lorge 30,000-word list, they expected a total of 139 base words in that list to occur in their Webster's list; however, only 123 Thorndike and Lorge words occurred. They thought it important that the high-frequency words, the words most likely to be known, should not be over-represented nor under-represented. Therefore, they randomly selected 16 base words at suitable levels from the Thorndike and Lorge list and added them to their list; at the same time, they dropped 16 base words from among the lowest-frequency words in their list for the purpose of maintaining a one-percent sample of the base words in *Webster's Third.*

Because their 542-word sample was drawn from *Webster's Third* published in 1961, they attempted to allow for some recent additions to the language. This was done by classifying 90 words (i.e., a one-percent sample) selected by means of spaced sampling from *9,000 Words* published in 1983, the most recent addition to *Webster's Third*, into the categories of word types which they had previously specified. Twenty-nine of the 90 words were found to be base words not included in *Webster's Third* and were added to their 542-word

list, making a total of 571 words as a Webster's representative sample of the base words.

To prepare their test list composed of 571 base words, the authors put the words in order of frequency. In the beginning of the list were words found in Thorndike and Lorge (1944); next came words not listed in Thorndike and Lorge (1944), but ones listed in *Webster's Collegiate Dictionary* (1979); and those not found in either of these were placed toward the end. In addition, since the testing was done in New Zealand, some words likely to be known to native-speaking adults in that country because of their frequency in contemporary usage were moved upward on the list. On the basis of the results of a pilot test with a small group of native speakers, they divided the complete list into two sections: one composed of 250 words more or less likely to be known by native speakers, and the other of 321 words not likely to be known. They then subdivided the first section into 5 separate, but equivalent tests, each containing 50 words.

The tests were given to 20 native speakers who were university graduates over the age of 22. The estimates of vocabulary size ranged from 13,200 to 20,700 with a group average of 17,200 base words.

3. Diack's Testing and Assessment Procedure

The Goulden et al. (1990) study includes not only the tests which they developed but also a test taken from a set of 50 tests prepared by Diack (1975). The reason for their inclusion of Diack's test is that they considered it necessary to examine his approach to vocabulary testing because their testing procedure was fairly closely modeled on that of Diack, who obtained relatively lower estimates of vocabulary size than those of other investigators. Diack's testing procedure is described as "an example of the most straightforward method of measuring knowledge of words: a "yes/no" or checklist approach, in which the respondents are simply asked to indicate whether they know each word or not" (p. 354). A decision as to whether one knows a word or not is left to the respondents and is made subjectively on the basis of their being fairly sure that they know at least one meaning of the word (p. 354). For the actual use of his tests, Diack required his respondents to express some kind of knowledge of the last five words that they thought they knew (i.e., the five checked furthest down the list). For each of the five words, he gave the following directions:

> You can show your knowledge of the word by giving a synonymous word or phrase, by using it in a sentence that demonstrates your knowledge, or you can do it by diagram or sketch. (Diack, 1975, p. 6, cited in Goulden et al., 1990, p. 354)

Supplying appropriate explanations of all or most of the five words, having been checked with a dictionary, is taken to mean that "all of the previous words that were thought to be known were in fact known and so the score is simply the total number of words known" (p. 354).

Diack's assessment procedure is briefly explained in the following account by Goulden et al.:

1. "The tests are divided into six frequency levels; each level represents 6,000 words and so each test item represents 600 words" (p. 352).
2. "In order to improve the reliability of the procedure, Diack recommends that people should take at least three of the tests and use the average score as the basis for estimating the size of their vocabulary, which is calculated by multiplying the average score by 600" (p. 354).

It is necessary to touch upon Goulden et al.'s indication of a scoring adjustment for a more appropriate interpretation of the scores made on Diack's tests. On the basis of their comparison of five of Diack's tests with Thorndike and Lorge's (1944) word frequency list, they found that Diack's division of the 60 words in each test into six frequency levels relied on the Thorndike and Lorge study (p. 353). As seen in the table below, however, Goulden et al.'s analysis of Thorndike and Lorge indicated that there would be only 13,900 base words in the list of 30,000 words.

Table 3.
Types of words in Thorndike and Lorge's (1944) list of 30,000 words

Type	Items in Sample	Percentage of Total	Estimated Totals in Thorndike and Lorge
Base	139	46.3	13,900
Derived	118	39.3	11,800
Proper Words	39	13.0	3,900
Abbreviations, etc.	4	1.3	400
Total	300	100.0	30,000

(Goulden et al., 1990, p. 349)

This means that "he [Diack] did not take account of the large number of derived words in Thorndike and Lorge which are already represented by base words in the list" (p. 353). Accordingly, Goulden et al. (1990) suggest that "it is therefore necessary to multiply a learner's score on Levels 1 to 4 by 0.46 [i.e. 13,900/30,000] or 9/20, or roughly, to reduce it by half" (p. 353).

4. Estimates of Vocabulary Size: A Self Assessment

In order to get an estimate of my vocabulary size, I completed one of Diack's tests. The whole list entitled Test Number 24, extracted from Goulden et al. (1990, pp. 352-353), is provided below, and ticks were put beside the numbers of the words that I thought I knew, that is, those whose meanings, at least one meaning of each, I was absolutely sure of.

List 1.
Diack Test Number 24

Level 1	Level 2	Level 3
✓ 1 asphalt	✓11 asterisk	21 absorbent
✓ 2 carol	✓12 centigrade	22 carnage
✓ 3 desert	✓13 density	23 deluge
✓ 4 encyclopaedia	14 estuary	✓24 eliminate
5 oblong	✓15 negative	✓25 negotiate
✓ 6 paragraph	16 perforated	✓26 parole
7 rafter	✓17 radius	27 recalcitrant
✓ 8 scale	✓18 section	✓28 rudimentary
✓ 9 scarcity	✓19 solitary	✓29 stringent
10 trapeze	✓20 superfluous	30 translucent
Level 4	**Level 5**	**Level 6**
31 acrimony	41 Anabaptist	51 alburnum
32 bauxite	42 chiaroscuro	52 cacique
33 cachet	43 dragoman	53 dunnage
34 denouement	44 eidolon	54 enclitic
35 egregious	45 nenuphar	55 niello
36 obeisance	46 parallax	56 paraheliotropism
✓37 paradox	47 parang	57 radula
✓38 rationale	48 recalescence	58 rocambole
39 sacrosanct	49 rococo	59 surrebutter
40 zany	50 subpoena	60 talus

(Cited in Goulden et al., 1990, pp. 352-353)

The last five words that I ticked were "parole," "rudimentary," "stringent," "paradox," and "rationale." For each of these five words, native-speaking respondents were required to express some kind of knowledge by writing in accordance with Diack's instructions, yet I found it much easier and quicker to check my knowledge of these words by consulting an English-Japanese dictionary, and in fact, the meanings that I thought they had were given in the dictionary. As was noted previously, "Diack recommends that people should take at least three of the tests and use the average score as the basis for estimating the size of their vocabulary" (p. 354), yet two other tests were not available to me for that purpose. The result of the only one Diack test indicates

that my vocabulary size is around 13,000 by the Diack standards, calculated by multiplying 22 by 600. According to the adjustment of scores on Diack's tests suggested by Goulden et al. (1990), however, my vocabulary size is estimated to be 6,000, calculated by multiplying 13,000 by 0.46.

Before moving on to the presentation of my results on the Goulden et al. tests, I should report on the gist of their testing and assessment procedure. As was mentioned previously, the testing procedure is substantially similar to that of Diack, that is, the "yes/no-tick" method together with the requirements for respondents to express some kind of knowledge of the last five words that they ticked and to check the explanations of those words in a dictionary by themselves. One difference is the use of question marks in order for respondents to mark words whose meanings they are not sure of exactly so they can easily check the doubtful words a second time and change the marks to ticks if definitions are correct. Words with question marks are not counted in scoring (p. 358). with regard to the assessment procedure, Goulden et al. (1990) give the following directions on the grounds that the 571 words contained in their list are a one-percent representative sample of the base words in *Webster's Third* and *9,000 Words*:

> If each of the fifty-item tests are [sic] used separately each item represents 500 words, so the number of items known in a test should be multiplied by 500 to get a total base vocabulary size score. If all five tests are sat, then the scores for all the tests should be added together and multiplied by 100. People gaining a score above 15,000 words on these tests should also check the list of words not likely to be known. Each item represents 100 words. (pp. 355-356)

All five of the fifty-item tests are provided below, with my ticks and question marks added on the basis of my knowledge of the words. The ticked words were those whose meanings, at least one meaning of each, I was fairly sure of, as had been done with the Diack test. The words with a question mark were those whose meanings I was not sure of exactly, that is, those whose meanings needed to be checked in a dictionary for confirmation. The marks "O" and "X" put in parentheses next to the question marks indicate that the meanings of the doubtful words on a one-meaning-to-one-word basis were remembered either correctly (O) or incorrectly (X), as determined by my consulting an English-Japanese dictionary. It has to be mentioned, additionally, that since I was absolutely sure of at least one meaning of each of the ticked words, I decided not to follow the directions to express some kind of knowledge of the last five ticked words by writing.

Test 1.
Goulden, Nation, and Read

✓	1 as	✓	11 abstract		21 aviary
✓	2 dog	✓	12 eccentric		22 chasuble
✓	3 editor	?(O)	13 receptacle		23 ferrule
✓	4 shake		14 armadillo	✓	24 liven
✓	5 pony	✓	15 boost		25 parallelogram
✓	6 immense		16 commissary		26 punkah
✓	7 butler		17 gentian		27 amice
?(X)	8 mare	✓	18 lotus		28 chiton
?(X)	9 denounce		19 squeamish		29 roughy
	10 borough	?(O)	20 waffle		30 barf
	31 comeuppance	?(X)	38 abruption		45 atropia
	32 downer		39 kohl		46 sporophore
✓	33 geisha		40 acephalia		47 hypomagnesia
✓	34 logistics		41 cupreous		48 cowsucker
	35 panache		42 cutability		49 oleaginous
?(O)	36 setout		43 regurge		50 migrationist
	37 cervicovaginal		44 lifemanship		

Test 2.
Goulden, Nation, and Read

✓	1 bag	✓	11 avalanche		21 bastinado
✓	2 face		12 firmament		22 countermarch
✓	3 entire	✓	13 shrew		23 furbish
✓	4 approve	✓	14 atrophy		24 meerschaum
✓	5 tap	?(X)	15 broach		25 patroon
?(O)	6 jersey	✓	16 con	?(O)	26 regatta
	7 cavalry		17 halloo		27 asphyxiate
✓	8 mortgage		18 marquise		28 curricle
	9 homage	✓	19 stationery		29 weta
✓	10 colleague	?(O)	20 woodsman	?(O)	30 bioenvironmental
✓	31 detente		38 brazenfaced		45 resorb
	32 draconic		39 loquat		46 goldenhair
?(X)	33 glaucoma		40 anthelmintic		47 axbreaker
	34 morph		41 gamp		48 masonite
?(O)	35 permutate		42 paraprotein		49 hematoid
	36 thingamabob		43 heterophyllous		50 polybrid
?(O)	37 piss		44 squirearch		

Test 3.
Goulden, Nation, and Read

✓	1 bird	✓	11 conversion	?(O)	21 blowout
✓	2 fell	?(X)	12 fixture		22 crupper
✓	3 improve		13 accede		23 gloaming
✓	4 barn		14 avocation		24 minnesinger
✓	5 fatigue		15 calyx	?(O)	25 perpetuity
✓	6 kettle		16 conclave		26 riffle
✓	7 combat	✓	17 hierarchy		27 behindhand
	8 resent	✓	18 monologue		28 embolism
?(X)	9 redeem		19 tamper		29 angst
✓	10 hurrah		20 acanthus		30 blowhard
	31 devolute		38 carboxyl		45 benchboard
✓	32 envoi		39 eyestalk		46 stirabout
	33 golliwog		40 curragh		47 hypothallus
	34 neonate		41 gunlock		48 doombook
	35 plainchant		42 dipole		49 paradiplomatic
?(O)	36 astrochemistry		43 rigorism		50 poroplastic
?(O)	37 nondurables	?(O)	44 localist		

Test 4.
Goulden, Nation, and Read

✓	1 cool		11 coronet		21 carpel
✓	2 kitchen		12 jut		22 doss
✓	3 lead		13 amorphous		23 havelock
✓	4 cow	✓	14 bagpipe	✓	24 nominative
✓	5 frog		15 choleric		25 pilotage
✓	6 scent		16 crock		26 serried
✓	7 harsh	?(X)	17 incumbent		27 blurb
✓	8 ascertain		18 offal		28 scriber
	9 sprig		19 untoward	✓	29 appositive
	10 matron		20 amphitrite		30 capybara
	31 directrix		38 cogito		45 scandium
	32 footage		39 corvette		46 gusli
?(O)	33 horseshit		40 chanterelle		47 chuckie
	34 nighthawk		41 hyperthyroid		48 mendeleyevite
	35 ravioli	✓	42 pica		49 matelasse
?(O)	36 aeroplankton		43 immunoassay	✓	50 slipper
	37 tandoor		44 apertometer		

Test 5.
Goulden, Nation, and Read

✓	1 cotton		11 deign	✓	21 centripetal
✓	2 block		12 marrow		22 dromedary
✓	3 precious		13 armada	✓	23 ideograph
✓	4 dig	✓	14 boomerang		24 nuzzle
✓	5 hostile		15 chowder		25 planking
✓	6 accurate	✓	16 earring		26 welladay
✓	7 inhabit	✓	17 linguistics		27 brassie
✓	8 crook		18 radium		28 huia
✓	9 blockade	✓	19 ventilate		29 baobab
✓	10 microscope		20 asperity		30 chomp
✓	31 doubleheader		38 hairspring		45 capsulectomy
	32 fusilier		39 audivision		46 volvulus
?(O)	33 interplay		40 dactylology		47 mancipation
	34 nubile		41 isomorphy		48 exceptionalism
	35 repartition		42 gaper		49 parasternum
	36 cockup		43 sextodecimo	?(X)	50 sparrowbill
	37 saddleback		44 redact		

(Goulden et al., 1990, pp. 359-361)

The following table shows the results of the five tests that I took:

Table 4.
Self Assessment Results of the Goulden, Nation, and Read Tests

	Ticked Words	Words with a Question Mark	Confirmed Words among ? Words	Ticked and Confirmed Words
Test 1	14	6	3	17**
Test 2	13	8	6	19
Test 3	12*	7	5	17**
Test 4	13	3	2	15
Test 5	17**	2	1	18
Total	69***	26	17	86
Average	13.8	5.2	3.4	17.2**

* The Lowest Estimate — 12 x 500 = 6,000
** The Highest Estimate — 17 x 500 = 8,500
***Total Base Vocabulary Size Score — 69 x 100 = 6,900

The total base scores of the ticked words on the first four tests (i.e., Tests 1, 2, 3, and 4) converge at 13, ranging from 12 to 14, and also those of the ticked words plus the doubtful (?) yet confirmed (O) words converge at 17, ranging from 15 to 19. The variation, ranging from 13 to 17, nearly coincides with the range of the scores of the ticked words on all the five tests, the base score range

being from 12 to 17. Although the scores are based solely on the results of only five tests taken by one respondent, with no statistical analysis for equivalence having been done, the score range shown above suggests: (a) that the five tests seem to be of equivalent quality, the test items having been selected randomly with precision and appropriate precautions, as was stated by Goulden et al.; and (b) that the potential size of my English vocabulary in terms of base words is likely to be located somewhere between the lowest estimate of 6,000 (i.e., 12 x 500) and the highest estimate of 8,500 (i.e., 17 x 500). A total of 69 ticked words in the whole list can be converted to an estimate of 6,900 (i.e., 69 x 100), which is located, in fact, in that range. It is noteworthy, furthermore, that the estimate of 6,000 words, gained previously in accordance with Goulden et al.'s scoring adjustment made for my Diack test score, is equal to the lowest estimate in the range mentioned above.

5. Twenty Japanese Subjects' Ticked word Scores

In order to gain a general picture of the range of the total base vocabulary size scores to be made by Japanese people proficient in English, the five fifty-word tests were given to 20 subjects, all of whom came under any one, two, or three of the following identification categories: teacher of English, teacher of Japanese, M.A. holder, resident in the United States, and person married to a native speaker of English. The data on the number of the words ticked by each subject as the indication of the "certainly known" words, the author's score included, are presented in list 2 below, and list 3 gives a frequency distribution of the ticked word scores.

List 2.
"Certainly Known" Word Scores by Japanese Subjects on the Goulden, Nation, and Read Tests

Subject	Ticked Words	Subject	Ticked Words
A	121	Author	69
B	117	L	62
C	117	M	60
D	110	N	58
E	100	O	54
F	99	P	54
G	88	Q	53
H	83	R	53
I	81	S	51
J	78	T	49
K	75		

List 3.
Frequency Distribution of the 21 Japanese Subjects' "Certainly Known" Word Scores

X	X_0	f	F	f%	F%
40–50	45	1	1	4.8	4.8
51–61	56	7	8	33.3	38.1
62–72	67	2	10	9.5	47.6
73–83	78	4	14	19.0	66.6
84–94	89	1	15	4.8	71.4
95–105	100	2	17	9.5	80.9
106–116	111	1	18	4.8	85.7
117–127	122	3	21	14.3	100.0
	Totals:	21		100.0	

When interpreted in terms of the knowledge of the base words, the data show that 66.6% of the scores of the 21 test subjects fell between 4,900 and 8,300 base vocabulary size in the group range extending from 4,900 to 12,100, with a group average of 7,770.

It is worthwhile to note that Subject J in the table presented above, who scored 78 (the closest to the group average score of 77.7), is a competent speaker and experienced teacher of English with a 35-year-long career in teaching.

The value of this study can be questioned for lack of due inquiry into the following problems which are inherently involved in vocabulary research:

1. The definition of what it is to know a word;
2. The validity of a "yes/no-tick" method in view of its respondents' personality involvement and error treatment;
3. "Differences in test performance across different cultural, linguistic or ethnic groups" (Bachman, 1991, p. 675);
4. The problem of a small and skewed sample.

These subjects are beyond the scope of this paper and well merit separate treatment in another study. Yet it has to be mentioned that the principal aims of the present study were (a) to find the potential size of my English vocabulary and (b) to gain a general picture of the range of the base vocabulary size scores to be made by Japanese people proficient in English. Therefore, in view of the acquisition of vocabulary by Japanese learners of English, it still seems noteworthy and interesting that the base vocabulary size scores made by the 21 Japanese subjects with a good command of English ranged from 4,900 to 12,100 with a group average of 7,770 while "their [the 20 native speakers']

average scores on the five tests ranged from 13,200 to 20,700 with a group average of 17,200" (Goulden et al. 1990, p. 356).

6. Concluding Remarks

In comparing the vocabulary size of second language learners with that of native speakers, two facts are obvious: (a) native speakers recognize a far wider variety of different meanings and delicate connotations pertaining to each word than second language learners; and (b) native speakers are acquainted naturally and appropriately with word collocations far more extensively than second language learners (see Hiki, 1991; Richards, 1976). That is to say, the measurement of vocabulary size on a one-word-to-one-meaning basis is defective intrinsically in the identification of a wider scope of vocabulary knowledge, and this can be true especially in an attempt to compare the vocabulary size of second language learners with that of native speakers.

However, being a learner and teacher of English myself, for my own future reference and to consider possible future vocabulary acquisition, I naturally find it interesting to compare my vocabulary test results with the vocabulary size of native speakers found in the Goulden et al. (1990) study. My vocabulary size can be estimated to be at least 1/3 (i.e., 6,000/17,000) and at most 1/2 (i.e., 8,500/17,000) of the average vocabulary size of adult native speakers. This simple calculation indicates that since I have been in close and constant contact with English for the last 15 years in my teaching career, including two years of M.A. studies in the United States, I may possibly need at least 15 more years to reach the native speaker's vocabulary level, not, of course, taking account of various and complicated factors inherent in foreign language learning, such as whether and how long one has lived in an English-speaking country and what one does during those years. A little arithmetic also shows that the yearly acquisition of English base words in my whole learning span can be assumed to be in a range varying from 194 to 274, with a daily average of less than one word. These figures are only the arithmetical products drawn from my vocabulary test results, and so they may be interesting and meaningful only to me. Yet they may show an example of vocabulary knowledge and its acquisition rate in a person with a 31-year-long career in English learning and a 15-year-long career in English teaching. Therefore, this study, based entirely on Goulden et al. (1990) and being, admittedly, limited in that sense, may possibly provide a basis for further investigations on English vocabulary size of Japanese learners.

Checking every word in a dictionary with the strict use of a word classification system established precisely and appropriately on the basis of the one employed in the Goulden et al. (1990) study only makes it possible to confirm the potential size of my English vocabulary estimated to be in the range varying from 6,000 to 8,500 in terms of base words, and to identify what kinds of words comprise my English vocabulary. Such a task is hard to accomplish, requiring a great deal of time, energy, patience, and effort. Before setting to work on such a study, however, one needs to address the questions of (a) its precise and well-defined academic objective, and (b) its value and practicality for TEFL in Japan. What are they? These questions will be answered some day, I hope, in another study.

Note

[1] Goulden et al. (1990) provide the following reasons for this exclusion:

1. "Dictionaries differ considerably in the way they deal with compound words and proper words, both in their policies of inclusion and place of inclusion" (p. 350);
2. "Clearly, proper words are not seen as being ordinary words" (p. 351);
3. "Derivatives, abbreviations, alternative spellings, inflected words, some proper words, and a large proportion of compound words do not represent a significant extra learning burden" (p. 351);
4. "The addition of other word types would increase the number of items in the test list to an unmanageable level" (p. 352);
5. "Because the frequencies of the various word types in Webster's Third are provided here, it is possible to make rough estimates of other groupings of word types by adding appropriate proportions of the desired word types to the base scores" (p. 352).

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Research Forum

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A Study of *Will* and *Going to* in Plans and Predictions

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1. Introduction

Martin (1978, p. 186) states that the *going to* form is used when the speaker has objective evidence. In the sentence, "Look at those clouds, it's going to rain," the evidence is the clouds. Aitken (1990, p. 70), however, says the structure depends on the kind of evidence. If the evidence is concrete, *going to* is used, but if the evidence is rational or mental, then *will* is used. Her example of the second kind of evidence is the sentence, "I will be sick (if I eat any more)" (p. 70). Lewis (1986, p. 81) says in cases where the speaker is looking forward to something, the *going to* form is used and both external and internal evidence are admissible. Sheen (1991, p. 5) says that time is crucial. If the decision is made at the moment of speaking, *will* is used. If the intention is decided beforehand, *going to* is used. Aitken (1990, p. 5) agrees with Sheen that the time one makes the plan is crucial, but goes on to add that the degree of certainty is also important. Thomson and Martinet (1986, p. 187) seem to agree that *will* is used to indicate the intention at the moment of decision, adding that *will* expresses stronger determination whereas *going to* is used for intention and prediction; however very often either form can be used. Celce-Murcia and Larson-Freeman (1983, p. 67) continue this line of thought and suggest that will is the true form of the future, but give examples that suggest that *will* or *going to* can be used interchangeably. Haegeman (1989, p. 309) clearly states that no hard and fast rule is possible or even desirable because at the sentence level there is no clear distinction between the meaning of *will* and *going to*. Clearly there is no consensus on these issues.

Three research questions are addressed. The first question is, which form, *will* or *going to*, is used by NS and NNS for discussing immediate plans and which form is used for making predictions? It is strongly suggested (Aitken, 1990, p.70; Lewis, 1986, p 81; Martin, 1978, p. 186; Thomson & Martinet, 1986, p. 186) that if there is evidence to support the prediction, the *going to* form is used. Therefore, the second question is, does the presence of evidence