(b)(3)-P.L. 86-36

Foreign Language Learning:

A Comparative Analysis of Relative Difficulty

Introduction

Students and teachers frequently speculate as to which foreign language is the most difficult for English-speaking students to learn and what makes some languages harder to learn then others. No qualitative or quantitative analysis of language learning difficulty has been applied thus far to answer these questions satisfactorily. In this article, we attempt to put forth a set of criteria by which foreign languages can be classified according to the degree of learning difficulty which they present to English-speaking students. These criteria are not intended to be a definitive basis for classifying learning difficulty. We believe, however, they can provide a useful framework for guiding operational decisions and testing policies at NSA.

Language teachers realize that many difficulties in learning a second language are a function of the extent to which the second language differs from the first. Differences in pronunciation, grammar, and levels of politeness and honorifics can cause learning difficulties. If we describe the fundamental characteristics of the two languages and identify the set of characteristics which is unique to the second language, we can arrive at an approximate aggregate measure of relative learning difficulty.

It is impossible to describe a specific number of characteristics that will do full justice to all the peculiarities of a given language. Language has so

many facets that it is extremely difficult to select one point of view from which to classify or describe it. Most linguists, however, have identified three fundamental dimensions of language as appropriate areas for research: phonology, morphology, and syntax.

Phonology is the study of the sounds of a language. Morphology is the study of the smallest meaningful units of language and of their formation into words. It includes inflection, derivation, and compounding. Syntax is the study of word order. Mackey has also identified lexicology as an important dimension of language,[1] which we include as a fourth criterion. The writing system and levels of politeness and honorifics become our fifth and sixth criteria.

To test the validity of these criteria, we compare our results with a history of actual learning experience compiled by the Foreign Service Institute of the U.S. Department of State. It maintains that it takes a student four to five times as long to attain proficiency in Japanese as in French or Spanish, and more than twice as long to learn Japanese as to learn Russian.[2] In this article, we examine whether or not our system for classifying learning difficulty points to the same conclusion. Furthermore, we try to use our criteria to explain why these languages are so ordered in terms of learning difficulty.

Phonology

Phonological differences between foreign languages and English include differences in articulation, caten-

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[1] William Francis Mackey, *Language Teaching Analysis* (Bloomington: Indiana University Press, 1971), pp. 79-97.

[2] American Council of Learned Societies and the Social Science Research Council, *Japanese Language Studies in the United States: A Report of the Subcommittee on Japanese Language Training Study of the Joint Committee on Japanese Studies*, December 1976, p. 1.

ation, rhythm, and intonation. With respect to articulation, we determine which vowels and consonants do not exist in the first language and which ones are simply pronounced differently. Examining the vowels of English and Standard French, we learn that English lacks the following French vowel phonemes (represented by International Phonetic Alphabet symbols): /o/ *tot,* /e/ *the,* /y/ *lune,* / ϕ / *feu,* / œ / *boeuf.* As most French teachers will verify, these are the vowels which, along with the nasals, give English speakers difficulty in learning French. When comparing the consonants of English and Standard Japanese, we see that English lacks the following: the glottal stop /Q/ *kitte, rippa,* and the nasal /N/ *ongaku.* These sounds generally present learning difficulties for English-speaking students. A sound may cause learning difficulty if it does not exist in the students' first language, is pronounced differently, or occurs in a different position in a word.

Languages differ in the way they divide the stream of speech into syllables and in the structure or make-up of their syllables. Even though English and Japanese have the sounds /b/, /y/, /o/, /i/, /n/, English students have difficulty in combining them in Japanese words such as *byooin* and *biyooin.* Not only the combinations themselves are different, but also the positions in which they occur. It is easy for English speakers to end a work in /-ts/, as in the word *cats,* but hard for them to begin a word with /ts-/, as in the Japanese *tsuki* or in the Russian *tsentr.*

Languages react in various ways when two or more of their speech sounds come together. Assimilation takes place if one of the sounds changes to become similar to its adjacent sound, as in / ᵻ izbuk/ for *this book,* and /teig ᵻ is/ for *take this.* Elision may occur when two or more sounds come together, as in /e-ᴠ/ for *ever* in which /v/ is dropped.

Languages vary in the way they link together or separate words and phrases. The rules of liaison in French, for example, as seen in /lez ᵋ tr/ for *les etres* and /le ᵋ tr/ for *les hetres,* are quite different from the English linking glides: two /ᴜ/ oranges, three /j / apples, and more /ᴦ/ apples.

The differences in juncture must also be considered in language comparison. This feature links and separates syllables and prevents the identical pronunciation of such similar sentences as *it's an aim* versus *it's a name,* and *send them aid* versus *send the maid.* Such combinations may vary from one language to the next.

Each language has its own rhythm. Japanese has a syllable-timed rhythm, English a stress-timed rhythm.

In Japanese, every syllable is given almost equal time: in the word *Okinawa,* each of the four syllables is pronounced with equal duration. In English, each unit of rhythm is made of a number of syllables, and the loudness of each syllable is affected by the number of syllables in the units of rhythm and by their relative importance. The vowel of *man,* for example, is longer than the same vowel in *manager,* and is even longer than the same sound in *serviceman.*

Some pairs of languages have much greater differences in intonation than others. A Japanese speaking English is easily recognized by his intonation—that is, when he unconsciously applies the intonation patterns of his own language to English sentences. Pitch and stress are elements whose variations are related to intonation. The musical pitch of the voice—a rising, falling, level, or falling-rising inflection—serves a phonemic purpose. Linguists such as Pike, Hill, and Trager note that these four tone phonemes occur in English. In Japanese, pitch and tone also act as distinguishing marks of morphemes, as in /hashi/ which means "edge," "chopsticks," "bridge," or "beak," depending upon pitch or tone.

No two languages share exactly the same sound system; therefore, the sound system of any language may, to a greater or lesser degree, be a learning problem to students.

Morphology

Not all languages have the same grammatical system. Some languages have no inflection, while others have inflection or derivation. Chinese, for instance, has no inflection. A Chinese sentence consists of a string of formally independent words with each word expressing a distinct idea, incapable of inflection or formal variation. The chief means of indicating grammatical relationships are by word order and auxiliary words. Chinese has no affixes—prefixes, suffixes, or infixes, although it does have compounding as other languages do. In the Chinese sentence "Man love woman," which may be looked upon as the practical equivalent of "The man loves the woman," the three concrete concepts—the subject, the object, and the action—are each directly expressed by a monosyllabic word. The state of definiteness or indefiniteness; number, gender, and person; tense, mood, and aspect—all these are given no morphological expression in the Chinese sentence.[3]

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[3] Edward Sapir, *Language* (New York: Harcourt, Brace and World, Inc., 1949), p. 92.

On the other hand, many languages, including Japanese, Arabic, and Russian, are highly inflectional and derivational. In Japanese a verb may consist of various linguistic elements, each having a distinct, fixed connotation and separate existence. For example, in the word *omeshiagarasekanemashitaraba, o* is an honorific prefix representing the speaker's respect to the listener; *meshiagar* is the stem form of a verb *meshiagaru* meaning "eat, drink, etc.;" *ase* is the infinitive form of the causative auxiliary verb *(r)aseru* meaning "have, let or make someone do something;" *kane* is the infinitive form of a dependent verb *kaneru,* meaning "hesitate or impossible to do something;" and *mashitaraba,* which means "if (someone does something)," is the conditional form of the polite auxiliary verb *masu* representing the speaker's respect to the listener. Therefore, this one Japanese word means "if (you, Sir) hesitate to have (someone) eat (something)."

In relevant languages, inflection and derivation take place in various parts of speech, such as particles, nouns, verbs, and adjectives, to reflect such grammatical distinctions as number, gender, person or case; tense, aspect, modality, voice; etc.[4]

Categories of inflection and derivation in a specific language may differ extensively from those in English, and so may the techniques of inflection and derivation, which may be agglutinative, fusional, or symbolic.[5] Since inflection for gender is limited in English, native English speakers may experience difficulty in learning languages like German, French, Arabic, and Russian, which denote gender by inflectional or derivational changes. English has only three cases—nominative genitive, and objective. The definite article *the* in English does not change its form even for number, case, or gender; hence, a definite article which changes its form may be another source of problems for English-speaking students.

Syntax

Although adverbs perform a similar function in French and English, they do not always occupy the same relative position in the sentence, e.g., *He rarely speaks* and *Il parle rarement.*

Linguists generally agree that all languages use a subject (S), object (O), and verb (V) in their sentences. The relative position of these word-classes differs. Logically, there are six possible orders: SVO, SOV, VSO, VOS, OSV, and OVS. Of these six, however, only three—SVO, SOV, and VSO—normally

occur.[6] The following are languages whose dominant word orders in declarative sentences are VSO, SVO, and SOV:[7]

Group I (VSO):	Arabic, Hebrew, Ancient Egyptian, Celtic, Polynesian languages
Group II (SVO):	Romance languages, English, Russian, Chinese, German, Albanian, Greek, Khmer, Vietnamese, all Thai languages except Khamti, Malay, Dutch, Icelandic, Slavonic, Norwegian, Swedish, Danish, Finnish, Estonian, Serbian
Group III (SOV):	Japanese, Korean, Turkish, Burmese, Hindi, Navaho, Tibetan, most Australian languages

This classification is based on the word order of declarative sentences which are unmarked or unaffected by any shifts in emphasis. For example, all of the possible combinations—SVO, SOV, VSO, VOS, OSV, and OVS—occur in Russian, yet only SVO is stylistically neutral. All other combinations cause shifts in emphasis or meaning.

The languages of each group share certain characteristics in terms of the existence of prepositions as against postpositions, the positions of qualifying adjectives in relation to the noun, the position of demonstratives, articles, numerals and quantifiers, etc. All languages of Group I are prepositional, a majority of languages of Group II are prepositional, while most of those in Group III are postpositional. As for the position of qualifying adjectives, the majority of languages of Group I have a general tendency to put nouns before adjectives, while those of Group II and III have either the noun-adjective order, the adjective-noun order, or both. In Group I, an inflected auxiliary always precedes the main verb. In Group III, an inflected auxiliary always follows the main verb. In Group II, the auxiliary precedes verbs in some languages, follows in other languages, and may both precede or follow in still other languages. When the adjective precedes the noun, generally the demonstrative and the numeral do the same.[8] In comparisons of superiority, if the only order, or one of the alternative orders, is standard-marker-adjective (e.g., Japanese *kore yori ookii...* literally "this-than-be big"), then the language is postpositional. With overwhelmingly

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[4] Ibid., pp. 108–109.
[5] Ibid., pp. 142–143.

[6] See Joseph H. Greenberg, "Some Universals of Grammar with Particular Reference to the Order of Meaningful Elements," in *Universals of Language,* ed. Joseph H. Greenberg (Cambridge: M.I.T. Press, 1966).
[7] Ibid., pp. 108–109.
[8] Ibid., p. 86.

more than chance frequency, if the only order is adjective-marker-standard (*bigger than this*), the language is prepositional.[9]

If factors other than word order could be ignored, English-speaking students would have less difficulty learning such languages as French, Italian, Russian, or Chinese, which are members of Group II, than those of Group I or Group III. English shares the fewest common features with the languages in Group III, it has more common features with the languages of Group I, and it shares the greatest number of common features with the languages of Groups II. Thus, English-speaking students may find Spanish easier to learn than Hebrew, and Hebrew easier than Turkish, as far as word order is concerned.

Lexicology

English-speaking students may find vocabularies of some languages easier to learn than those of other languages. This may be due to genetic relationship, borrowing of words, and/or loan translation.

Languages derived from the same original source have a genetic relationship: two or more languages existing today, or known to us from an earlier period through written records, can be demonstrated to be derived from earlier language.[10] This genetic relationship can be demonstrated by a method which involves the establishment of sets of regular correspondences between the languages compared. These sets of corresponding words, called cognates, refer to the same thing or almost the same thing, and in many cases look and/or sound alike, as English *man* and German *Mann*.

Two languages may have certain resemblances because of the borrowing of words. Chinese, for example, has flooded the vocabularies of Korean, Japanese, and Annamite for centures. English borrowed an immense number of words from Norman French and Latin. Arabic has permeated Persian and Turkish; and Siamese, Burmese, and Cambodian bear the unmistakable imprint of Sanskrit and Pali.[11]

The phrase "loan translation" refers to a word that is formed in one language by translation of the constituent parts of the word—prefix, root, and possibly suffix—from some other language, usually Latin or Greek. Consequently, this phenomenon is most commonly found in languages not derived from Latin, such as German and the Slavic languages and even a

non-Indo-European language like Hungarian. Yet Russian, which is otherwise somewhat more difficult because of its non-Latin writing system, may be easier for English-speaking students to learn because both Russian and English produce compound words in the same way. For example, once the student has learned the Russian word *pisat'*, meaning "to write," and the Russian prepositions *v, pod, pri,* and *pro,* which respectively mean "in," "under," "to," and "before," he immediately has passive or cognitive control of words he as never seen; *vpisat'* means "to (write in) inscribe," *podpisat'*, "to (write under) subscribe," *pripisat'*, "to (write to) ascribe," and *propisat'*, "to (write before) prescribe."

Students of German will find German words easy to learn for the same reason. The words, *einschreiben, unterschreiben, zuschreiben,* and *vorschreiben,* are the equivalents of the English words, "inscribe," "subscribe," "ascribe," and "prescribe." Once the root has been learned, other combinations can be recognized at sight. For example, *pisatel'*, like *Schriftsteller,* means a "writer," *pis'mo,* like *Schreiben,* means a "letter," and *pis'mennyj stol,* like *Schreibtisch,* means a "writing desk."

It is true that students may experience confusion because two words sound and look alike. When they see a familiar-looking word in a foreign language, they may expect the foreign word to mean exactly the same thing and to occur in exactly the same environment as in their native language. But this is not always so. Generally speaking, however, students of foreign languages find cognate words or words related to their native language easier to remember than words that are totally unfamiliar to them.

On the basis of the examination of genetic relationships as well as the evidence of loan translation and borrowings, it can be concluded that languages such as Japanese, Korean, Arabic, Hebrew, Chinese, Vietnamese, and Turkish, which possess no cognates or words related to English, consequently would, in this respect, be harder to learn than those languages having a great number of words which resemble English words.

Writing System

Some languages use the same alphabet as English—the Latin alphabet, others do not. Such languages as Turkish, French, Italian, and Spanish use the Latin alphabet with minor variations. There is little need to include handwriting drills as part of a foreign-language course if the students' native language uses the same alphabet. However, languages with different scripts,

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[9] Ibid., p. 89.

[10] Roy Andrew Miller, *The Japanese Language* (Chicago: University of Chicago Press, 1967), p. 60.

[11] Sapir, pp. 192–193.

such as Cyrillic in Russian, Alifba in Arabic, Alepbet in Hebrew, Hiragana and Katakana and Chinese characters in Japanese, Hangul and Chinese characters in Korean or in Chinese, may present problems.

The Russian alphabet has 33 symbols and no variations. The Arabic alphabet consists of 28 consonantal symbols and a number of vocalic symbols. Each of the 28 symbols can change its form depending upon its location—whether independent or in the initial, medial, or terminal position of a word. Twenty-two of the Arabic letters have four variations, the remaining six have two variations each. This makes 100 variations to memorize. Hebrew has 22 original symbols and a new additional one. Five symbols each have two variations and the remaining 18 have one fixed form. This makes a total of 28 written symbols.

Probably the most difficult aspect of the Arabic and Hebrew writing systems is that vowels are never represented in written material except in poetry and children's books. In order to read written material, students must correctly guess missing vowels and reconstruct words which match the context. We can illustrate this difficulty by asking a speaker of English to guess the missing vowels in the combination of three consonants *FRM*. Depending upon the context, *FRM* could be any one of many words, e.g., *form, frame, firm, from, forum, farm.*

The Japanese Katakana and Hiragana consist of 46 symbols each and 2 auxiliary symbols. The Katagana traditionally is used to represent proper nouns of foreign origin, foreign loan words, some onomatopoetic words, and some technical terms. The Hiragana is used to write postpositions, inflectional endings of verbs, adjectives and the copula, and all auxiliary verbs. In addition to the 94 symbols and signs, Chinese characters are used to represent nouns, stems of verbs, adjectives and other parts of speech.

The Ministry of Education in Japan has selected 1,850 Chinese characters for daily use, and recommends the use of Chinese characters be limited to this range, if possible. This does not mean, however, that any written Japanese material can be read with the knowledge of only 1,850 characters. Nelson's Japanese-English Character Dictionary contains 5,000 characters, with more than 10,000 current readings and almost 70,000 compounds in current use. Korea, which uses 24 Hangul alphabets and Chinese characters in its language, has tried to limit the use of Chinese characters to about 1,300 for normal use. Students of Chinese generally feel comfortable reading articles in Taiwan newspapers if they can recognize about 1,500

characters. This indicates that in Korean, Japanese, and Chinese, students would feel reasonably comfortable if they learned about 2,000 characters.

Even if the use of Chinese characters were limited to 2,000, students of Japanese would have great difficulty mastering them. In Japanese, a Chinese character has more than one reading, in both Korean and Chinese only one. Multiple readings developed when Japan imported Chinese characters and superimposed them on its existing sound system, while importing also the Chinese sound system. And as the sound of certain characters in Chinese changed, Japan imported these sounds as well. For example, the Chinese character 行 has six readings, *yu(ku),* *i(ku), oko(nau)* in indigenous Japanese readings, and *koo, gyoo, an* in Chinese readings. *Koo* is called the Han sound, *gyoo,* the Wu sound, and *an,* the Tang sound. Every one of the six readings is equally important and must be memorized. The Han sounds were imported from the Changan region during the Tang dynasty and modified into Japanese pronunciation style, the Wu sounds imported from the downstream area of the Yangtzechiang during the Sui-Tang dynasty, and the Tang sounds imported after the Sung dynasty. Nelson's dictionary indicates there is an average of two readings per Chinese character. This means that students of Japanese must learn about 2,000 characters along with more than 4,000 readings, while students of Korean and Chinese must learn only 2,000 characters with about 2,000 readings.

Looking up Chinese characters in a dictionary presents special problems for the student. The procedure for finding a character in a dictionary involves the following steps:[12] (1) determine the radical[13] of the character, count the strokes of the radical, and find the radical number on a chart; (2) search the dictionary for that radical number; (3) count the number of strokes in the non-radical part of the character and then, slowly search each page until the tiny numeral opposite the radical equals the stroke-count; and (4) study the main-character entries nearby to find the one desired.

This complex procedure implies that students of Japanese, Korean, or Chinese would probably require

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[12] Andrew N. Nelson, *The Modern Reader's Japanese-English Character Dictionary* (Rutland: Charles E. Tuttle Company, 1975), p. 1001.
[13] There are 214 basic elements or radicals or elementary ideographs forming categories of sense and combined with phonetics to form phonograms whose meaning they suggest. See Mario Pei, *Glossary of Linguistic Terminology* (New York: Doubleday and Company), p. 227.

more time to finish a PQE than would students of alphabetical languages, assuming that all language PQEs have approximately the same level of difficulty, length of text, grading system, and number of unfamiliar words. This can easily be proven. Give a set of totally unfamiliar words in various languages to students who know little of a language except how to look up words in a dictionary. Students of Spanish, French, German, or any other alphabetical language, will finish their task much more quickly than students of Chinese, Japanese, or Korean.

We can conclude that Japanese has the most difficult writing system among those languages which use non-Latin alphabets. In addition to 94 Hiragana, Katakana, and auxiliary symbols, Japanese has Chinese characters each of which has more than one reading. Next is Korean, which has Hangul in addition to Chinese characters. The Chinese writing system is third, followed by the Arabic system, which has 100 symbols, and Hebrew with 28 symbols. Students of Hebrew are also required to redeem missing vowels while reading Hebrew texts. The Russian writing system, with 33 symbols and no variations, may be the easiest to learn among those of languages which use non-Latin alphabets.

Stylistics

We have examined differences in sound, grammar, vocabulary, and writing systems of a number of languages. In order to complete our differential analysis, we must also study the stylistic differences, that is, the ways in which languages differ in the production of complete utterances in any given situation. In order to function in a foreign language, it is not sufficient to know only words and phrases. One language may require a simple utterance in a given situation, while another language may require several different utterances.

In languages like Japanese, Korean, and Turkish, factors such as sex, age, degree of intimacy, and social position play a great part in the choice of a level of speech in a particular situation. The levels of politeness of speech and its formations in Japanese, for instance, are quite complex, involving morphological and syntactical changes. The following is Prideaux's illustration of the various formations which a verb may have in order to show different levels of politeness.[14]

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14 Gary D. Prideaux, *The Syntax of Japanese Honorifics* (The Hague: Mouton, 1970), p. 17.

Non-Formal	Formal
Plain	
yomu	yomimasu
Polite (Honorific)	
oyomi ni naru	oyomi ni narimasu
oyomi asobasu	oyomi asobashimasu
yomareru	yomaremasu
oyomi ni narareru	oyomi ni nararemasu
oyomi asobasareru	oyomi asobasaremasu
oyomi da	oyomi desu
Polite (Humble)	
yomasete itadaku	yomasete itadakimasu
oyomi suru	oyomi shimasu
oyomi itasu	oyomi itashimasu

The Japanese verb *yomu* means "to read." All the above expressions, except the seventh, eighth, and ninth, are synonymous, meaning "(someone except I) read(s)," but they differ in stylistic and social connotations. The above-mentioned exceptions mean "I read."

The stylistics of courtesy vary considerably from language to language; equivalent expression may be a matter of vocabulary in one language and of grammar in another. For example, the difference between plain and polite style may be expressed by Chinese *ni* and *nin*, French *tu* and *vous*, and German *du* and *Sie*—a matter of vocabulary.

Levels of speech in Japanese, however, have not been fully researched because a great many levels of politeness are available to the speaker of colloquial Japanese, and the differences between certain of the levels are often very delicate and difficult to define. Yet this is an integral and productive part of the language which often seems quite elusive to English-speaking students. Languages that possess such levels of speech are usually harder for English-speaking students to learn than those that do not.

Conclusion

One measure of difficulty in learning a foreign language is the degree to which the language differs from the students' native tongue. Although this analysis may not permit us to rank languages precisely according to learning difficulty, it will at least help us identify which languages have the greatest number of linguistic features different from those of English and are, therefore, relatively more difficult to learn. The chart below illustrates the differences between some of the languages taught at the National Cryptologic School and English.

Basic Characteristics of Selected Languages Which Differ From English								
	Phonology	*Morphology*	*Syntax*	*Lexicology*	*Writing System* 1	2	3	*Stylistics*
Arabic	x	x	x	x	x			
Chinese	x			x	x	x		
French	x	x						
German	x	x						
Hebrew	x	x	x	x	x			
Italian	x	x						.
Japanese	x	x	x	x	x	x	x	x
Korean	x	x	x	x	x	x		x
Russian	x	x			x			
Spanish	x	x						
Turkish	x	x	x	x				x
Vietnamese	x	x		x				

Phonology: No two languages share exactly the same set of sounds, catenation, rhythm, stress, tone, pitch, etc., and therefore the sound system of any language may to a greater or lesser degree cause a learning problem for students.

Morphology: Languages with no inflection are easier to learn than those with inflection or derivation. Those languages which have inflectional or derivational differences are noted here. Only Chinese lacks these differences.

Syntax: English-speaking students will probably find the word order of Group II languages the easiest to learn. Noted here are only those languages classified in Groups I and II.

Lexicology: Some languages resemble each other in their vocabularies because of cognates, borrowed words and loan translations. Those languages which do not have words which resemble, or are related to, English words are noted here.

Writing System: Some languages use written symbols which are totally different from the Latin alpha-

betical system. Column 1 under this category indicates those languages which do not use the Latin alphabet, column 2 those languages which have more than 1,000 written symbols, and column 3 those languages that have more than one reading for each written symbol.

Stylistics: Those languages which employ various levels of speech that involve not only lexical but also morphological and syntactical changes are indicated here.

Japanese is the only language that has a mark in every column: it has a very difficult inflectional and derivational system; a word order quite different from English; no words related to or derived from English other than a small number of loan words; a writing system which has an enormous number of symbols, all totally different from the Latin alphabet and each having more than one reading; and various levels of politeness in speech. This analysis suggests that Japanese is probably the most difficult language for English-speaking students.

Except for its writing system, Korean seems to be as difficult as Japanese. It has linguistic features similar to Japanese. The only advantage which students of Korean can enjoy over students of Japanese is that, with few exceptions, a Chinese character has only one reading in Korean.

Chinese seems to be much easier than either Japanese or Korean: it has no morphological system, since it has absolutely no morphological changes, and its syntax closely resembles that of English. Chinese, however, has an enormous number of written symbols, all completely different from the Latin alphabet. Even though students may find Chinese grammar the easiest among modern languages, the Chinese characters are extremely difficult.

If we compare Arabic and Hebrew with Japanese and Korean, we find that the latter are more difficult. Japanese and Korean have the SOV word order while Arabic and Hebrew have the VSO word order. As we stated above, the VSO word order is closer to the SVO word order than the SOV order. Japanese and Korean are postpositional while Arabic and Hebrew are prepositional, as is English. Japanese and Korean have the relative expression/noun order while Arabic and Hebrew have the noun/relative expression order which appears in English. Japanese and Korean have the main verb/auxiliary verb order while Arabic and Hebrew share with English the auxiliary verb/main verb order. Moreover, Japanese and Korean have more difficult writing systems than Arabic and Hebrew.

Finally, Japanese and Korean have various levels of speech, while Arabic and Hebrew do not.

If we compare Turkish with Japanese and Korean, Turkish appears to be easier. All three belong to the SOV language group, naturally sharing most of the syntactical features. All are highly inflectional and derivational. None shares any cognates with English or has any words related to English. All three have various speech levels which involve morphological and syntactical changes. Turkish, however, has a very easy writing system while Japanese and Korean have extremely difficult ones.

Although the chart does not clearly show a difference among Arabic, Hebrew, and Turkish, Arabic appears to be the most difficult, Hebrew the easiest. Arabic has a more difficult sound system, morphological system, and writing system than Turkish, while Turkish has a more difficult syntactical system and various levels of speech that do not exist in Arabic. Turkish is more difficult than Hebrew because Turkish has a more difficult syntax and various levels of speech that do not exist in Hebrew, but Hebrew has a more difficult writing system than Turkish.

Hebrew, however, is more difficult than Russian or Vietnamese. Hebrew has a more difficult syntax, vocabulary, and writing system than Russian and has a more difficult syntax and writing system than Vietnamese. Between Russian and Vietnamese, Russian appears to be more difficult. Russian has a more difficult morphological system and a somewhat more difficult writing system than Vietnamese.

Among Vietnamese, German, French, Italian, and Spanish, Vietnamese may be the most difficult. Vietnamese shares no cognates with English while the others do. Next to Vietnamese, German may be the most difficult for English-speaking students to learn for German has a difficult syntactical feature, the discontinuity of the predicate, which the others lack. Among French, Italian, and Spanish, there also seems to be only a slight difference in difficulty. It appears that these three are the easiest languages for English-speaking students to learn.

We may summarize what we have discussed by using the mathematical symbol ($>$), where "$A>B$" means "A is more difficult than B." Our summary can be formulated as follows:

A. Japanese$>$Korean$>$Chinese
B. Japanese$>$Korean$>$Arabic$>$Turkish
   Hebrew$>$Russian$>$Vietnamese$>$German$>$
   French/Italian/Spanish

This indicates some hierarchy of languages according to relative difficulty for English-speaking students. Our comparison, however, is not comprehensive: it does not indicate the extent of these differences. For example, Chinese has a very difficult writing system, Arabic a very difficult morphological system, and Turkish a very difficult syntactical system. We cannot judge the relative importance of these difficulties or how they should be weighed in our overall scheme for classifying learning difficulties.

As we mentioned above, language is too varied to be easily described or classified. The analysis offered here is not presented as absolute or definitive, but it can perhaps serve as a framework for further analysis and investigation.

(b)(3)-P.L. 86-36 has been a Japanese language instructor in the National Cryptologic School since April 1975. Before coming to NSA, she served as a television news assistant correspondent for the Washington Bureau of Fuji Telecasting Company and as a consultant for Herner Information Services, Inc. She also taught Japanese language at the University of Hawaii and at Washington University, St. Louis. (b)(3)-P.L. 86-36 who holds a BA in philosophy from Tokyo Kyoiku University and an MA in linguistics from the University of Hawaii, has had several articles on linguistics and language teaching published in Agency periodicals and elsewhere.