AN APPROACH TO THE GREEK READING PROBLEM BASED ON STRUCTURAL STATISTICS[1]

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In this society, among whose members the exegesis of the original languages of the biblical text is a primary concern, one supposes that there also exists a lively interest in fostering exegetical ability among our students. We will probably agree that it is required in exegetes, first and foremost, that they be able to *read* the texts which they seek to interpret. Therefore, this paper is addressed to the very fundamental problem of how to aid beginning students of New Testament Greek to gain ability, in the most expeditious manner, really to read the Greek text of the New Testament. It is slanted particularly to the needs of students who have had no previous instruction in any form of the Greek language, and problems which confront instructors whose students may have only a year (or two at the most) to spend in formal classroom study of koiné Greek.

The viewpoint taken here is that the first goal to set for students of New Testament Greek is that of learning what is necessary to become as competent as possible, as soon as possible, in *reading* Greek. The central thesis of this paper is that a careful study of the structural characteristics of the New Testament text yields facts which have important implications for the development of instructional methods which seek the achievement of such a goal.

The Nature of Reading. Questions as to the nature of reading and concerning the role played by the study of formal grammar in the development of reading ability are immediately raised. The process by which one takes the rules given in a descriptive grammar, along with a lexicon, and laboriously deciphers a text word by word and point by grammatical point is *not* reading. Yet it is the level of competence to which many students have been brought after a whole academic year of fairly intensive grammar study. It is also a way to cripple potential exegetes in process of birth.

Reading is a process involving a fairly rapid, practically automatic, recognition of the meanings *not* of words as *words,* but of words *in significant orders of arrangement and of constructional relationships.* In discourse, lexical units always occur in structural frames. These frames, or construction types, have specific significance of their own over and above the meanings of the individual lexical items which may occur in them. In reading, as in spoken communication, one's primary reaction is to the significance of these frames, without which the individual words would have little meaning for any kind of discourse.[2]

For example, one frame-pattern common to English structure includes as primary elements a transitive verb and two nouns.[3] In normal narrative style, the order is always (1) noun, (2) verb, and (3) noun, as, e.g.: "John hit Bill," or "the man saw a house." The meaning of this structure is: "an actor does-something-to someone/thing," and it is constant. The individual lexical items, which can be substituted for by any number of words of similar category in each position, specify who-in-particular-does-what-in-particular-to someone/thing-in-particular. Without being able to recognize this structure for what it means whenever it appears, we could read with intelligence very little of what is written in English. As it is, we are able to understand statements of this type whose number is limited only by the amount of the vocabulary available for them.

Formal Grammar and Pedagogical Order. In learning to read, as well as to speak, a new language with maximum speed, a command of the basic expression patterns or structural forms is of primary importance.[4] Formal grammar has value only as it helps the learner gain control of these meaningful expression patterns. Therefore, students should be introduced from the outset to the basic structural patterns of N. T. Greek. They should be given drill in recognizing the form, class constituency, and over-all significance of each pattern. Also, from the earliest possible moment, they must be given opportunity to read *bona fide* Greek, in normal (even if simplified) style, graded to the level of their abilities, so that at each stage they engage in successful experiences of using their newly acquired learning in a significant way.

Such an approach raises the question of the *order* in which the elements of the grammar of the new language are to be presented in the study materials. The authors of three elementary grammars which enjoy a fairly wide use today apparently phrased the question this way: "What would a student need to know *in general* about the language if, after from six to nine months of class instruction in grammar, he began to try to read the simplest sections of the New Testament text?"[5]

Grammars of the type alluded to are not properly designed to foster reading ability. They are just simplified descriptive grammars padded with a limited amount of exercise material. A skillful teacher can use them, but they are a strain on his ingenuity if his goal is to have students begin to read early in the course rather than merely to provide them with an elementary study of the formal grammatical features of Greek.

As one glaring example of the type of difficulty one experiences in trying to use them to foster early reading, the position of the vowel-stem, or "contract", verbs in the progression of lessons may be cited. In one grammar, they are discussed in the forty-ninth of fifty-nine lessons; in another, in the twenty-eighth of thirty-three; and in a third, in the twenty-third of thirty-three lessons.[6] Why so late, when one can hardly step into the thickets of the N.T. text anywhere without flushing a veritable covey of these "birds"?[7]

If the primary role of grammatical facts is to make possible the intelligent reading of the text, then the grammatical characteristics of the text — or at least those portions of it which are to be read first — ought to be consulted as a guide in determining the proper order in which to present the grammatical facts. The question put by the reading approach is this: "(1) What formal elements and what structural patterns must the learner master *first* in order to begin significant elementary reading in this language; and (2) what *succession* of grammatical features must he learn if he is to gain ability to read progressively more difficult materials?" In other words, what does he need to know *in particular* to make each stage of advance in reading ability possible? When the N.T. text is asked this question by way of statistical studies of its major structural elements, the answer it gives is significantly different from that given in the standard grammars.

Preliminary Statistical Survey. The remainder of this paper reports some results of a preliminary survey recently made relative to the frequency characteristics of various grammatical elements in selected portions of the N.T. text. Two main categories of features were taken into consideration: (I) inflectional items whose inflections are significant features of syntactic structures; and (2) function words which characteristically introduce structures of specific types (i.e., prepositions, relative pronouns and adverbs, and the various conjunctions). Counts of each of these features were made in each section of text selected. They were tabulated, totalled, and then reduced, for most categories, to a simple statistic of item-to-line ratio. The profiles gained for each set of features in one section were compared with similar sets in the other sections.

The sections first selected for study included I John in entirety and five chapters each in John, Mark and Luke. Since the five chapters in I John total only 263 lines,[8] a further selection was made among the gospel segments so as to get sections somewhat parallel to I John in total line counts. I John, John 1, 2 and 5 (267 lines), Mark 1, 3 and 4 (264 lines), and Luke 2 and 9 (267 lines) thus became the material for special study. It will be recognized that the choice of N.T. materials for study was from books showing a progression in grammatical difficulty.

Specifically, the following items are of particular interest:

1. Of the inflectional items, nouns and personal pronouns were counted in relation to the incidence of their case forms, under four case rubrics: nominative, accusative, genitive, and dative. Those occurring with prepositions were dealt with separately.

a. Of the nouns, nominatives and accusatives occur most frequently, with genitives ranking third, and datives last in all sections. Nominatives are most frequent in I John and John, accusatives leading in Mark and Luke.

b. Of personal pronouns, genitives are in the lead, with datives, accusatives, and nominatives coming in that order in the total counts. John and Luke showed the highest concentration of personal pronouns, with frequencies of one in every 1.6+ lines in each. The ratio of pronouns to nouns ranges from 1:2.2 in I John to about 1:1.39+ in Luke.

c. Adjectives were counted in terms of usage as direct attributives, predicatives, and nominals. Because of their inflectional and syntactic characteristics, demonstrative pronouns were included with the adjectives, altho made a separate category. The attributive use of adjectives appears most frequently in all sections. The highest word-to-line ratio of this usage appears in Mark (1:5.68), with the next highest in I John (1:6.25).

Adjectives of all types occur in the highest frequency in I John (1:2.7+ lines). Of these, one-fourth were demonstratives. Of the forty-two occurring in attributive use, many were forms of *pas* in construction with nominal participles, a characteristic feature of I John. As already noted, Mark has the highest concentration of attributives, apart from demonstratives, while the Lukan section has as many demonstratives as I John.

In terms of frequency rank order in the total counts, nouns are first, with pronouns second and adjectives third. The ratio of adjectives to nouns is about 1:2.79+.

d. Verbs were counted only as to tense and mood forms, but observations as to occurrences of the voice forms and usages were not omitted. Finite forms of *einai*, and the infinitives and participles were each counted as separate categories.

(1) Of the finite verbs, the present and aorist indicatives predominate, with aorist forms in the lead, except in I John. Forms of *einai* are most numerous in I John and in John.[9]

(2) Of the other tenses of the indicative mood, the following rank order pattern appears: (a) in I John and in John, perfects rank third; (b) futures rank fourth in I John, with imperfects fifth, an order which is reversed in John; (c) in Mark and Luke, the order is: 3rd, imperfects; 4th, futures; and 5th, perfects.

(3) Of the subjunctive mood occurrences, aorist forms predominate, except in I John. I John also contains a concentration of subjunctives which is higher than in any one of the other sections.

(4) Two inescapable observations were made as to the voice forms: (a) active forms predominate; (b) of verbs in middle and/or passive *forms*, the majority are occurrences of the common deponents. Actual middle or passive voice usages are relatively infrequent.

(5) Infinitives show a steady increase in frequency from I John through John, Mark and Luke. Present tense forms lead, except in Luke, in which aorists predominate.

(6) Participles show the same pattern of steady increase, as follows: I John, 54; John, 81; Mark 90; and Luke, 105. Present nominal (mostly articular) participles predominate in I John. In John, present tense *non*-nominal (and non-articular) uses are most frequent. In Mark and Luke, *aorist* tense non-nominal uses occur most often.

2. Among the structures introduced by function words, the following salient features appear:

a. Prepositions with the accusative and genitive case forms share honors for first place in the total counts. However, in I John, those with the dative lead, those with the genitive ranking second. Prepositions with the genitive occur in frequency rank one in John, those with the accusative leading in Mark and Luke.

b. Of the coordinators apart from *kai, de, alla,* and *gar* are the most frequent. *de* is in first rank in Luke and John, *alla* ranking first in I John. Mark and John display the greatest variety of different coordinators in the segments studied.

c. Of subordinators introducing clauses with the indicative mood, relative pronouns and *hoti* occur in first places in all the sections, with John showing the greatest variety of subordinators. In clauses with the subjunctive, *hina* and *ean* rank first and second respectively in the total counts, with *ean* leading *hina* in I John by a slight margin. Also, in I John, *hoti* outranks all other subordinators.

3. Other items than those mentioned above all occur in low concentrations, hence will not be reported in detail.

Comparison of Check Sections. Inasmuch as five chapters each from John, Mark and Luke were initially selected from which to draw segments for comparison with I John, and only two or three chapters from each group were actually used in the special study, the remaining chapters formed a rough check group for the study. The statistical trends reported above were found to appear, in general, in these check segments also.[10]

The major variants appeared in the check material from John and Luke. In John 3 and 6 (239½ lines), the nominal participles predominate over other uses. These chapters include much discourse material in a style similar to I John. Verbs in the present indicative are also more numerous in John 3. In Luke 1 and 4 (250 lines), future tense verbs and personal pronouns appear in higher concentrations than in other sections, with most of these in chapter 1.

Summary and Conclusions. An approach to the study of N.T. Greek grammar which has reading ability as its primary goal for the beginner asks the question: "(1) What formal elements and what structural patterns must the learner master *first* in order to begin significant reading in this language; and (2) what succession of grammatical features must he learn in order to acquire ability to read progressively more and more difficult text?"

The answer given by a statistical survey of the grammatical characteristics of the text such as has just been presented is not the same as that given by the standard grammars for beginners. The answer of the text challenges such grammars as to the manner and order of presentation of almost every major item, from the traditional lineup of the noun forms to the order of presenting the tense and mood forms of the verbs. Moreover, when so studied, the text itself suggests definite primary and secondary targets for early attempts to read uncontrolled materials, such targets being indicated by the structural characteristics inherent in the text, especially when taken in conjunction with well-defined principles of language pedagogy.

Two major principles guided in the interpretation of the findings, as they did, in part, in the selection of the text segments to be studied: (1) the most frequently occurring structural patterns are those most fundamental to the expression system of the language, hence are of the greatest usefulness to the learner;[11] (2) in presenting the new language to the learner, priority should be given to those structures which are most similar in form and meaning to those in his own, wherever other principles of good language pedagogy will allow.[12] Largely on the basis of these principles, the following suggestings are made relative to a pedagogical order which will do justice to the implications of the statistical characteristics of the text as presented.

In view of the fact that, generally speaking, I John exhibits a simpler grammatical structure and more parallelisms with basic features of English structure than other segments of the New Testament, it could continue to be used for the beginner's first try at reading the uncontrolled N.T. text on a more or less independent basis.[13] In preparation for this, he could be given about a semester of preliminary work in which the following elements of formal grammar would be introduced and reinforced by exercises and controlled reading selections:

(1) the present tense verb, including "contract" types; (2) nouns as subjects with intransitive verbs; (3) nouns as objects with transitive verbs; (4) prepositional phrases with accusative nouns; (5) present deponent verbs and the present tense of *einai*; (6) an introduction to complementary infinitives and to adjectives; (7) the aorist indicative verbs; (8) genitive and dative nouns and their common uses, including prepositional phrases.

Along the way up to this point, the three most common coordinators (viz., *kai, de,* and *alla*), clauses with the relative pronouns and with *hoti* could be introduced in a semi-inductive manner. So could personal pronouns and the demonstratives, as well as *hos* and *kathos* clauses. These last stand high among subordinating conjunctions with the indicative in the sections studied.

After this point could be introduced: (1) a full-scale treatment of the uses of adjectives; (2) present and aorist active and deponent participles and their uses;[14] (3) the common —MI verbs (presents and aorists); and (4) clauses introduced by *hina* and *ean* with subjunctive verbs.[15]

A well-planned course including grammar (kept to a necessary minimum),[16] exercise, and controlled reading in quantity such as would give abundant practice with these features of Greek structure would prepare the student to handle the grammar and reading of I John with very little help other than with vocabulary.[17] His reading of uncontrolled text could be started here, and he could continue with readings in selected sections of John, Mark and Luke.

Further grammar study could be controlled to prepare the student for the new grammatical features which he would meet in increasing concentration as his reading progressed. These would include verbs in the perfect, imperfect, and future tense forms, middle and passive voice forms and uses, the remainder of the pronouns, the other more common subordinating and coordinating particles, and fea-

tures of Greek structure which differ markedly or subtly from English patterns, such as the articular infinitive phrase, article uses, and others of like nature.

The result of this type of approach would be that students would be more adequately prepared to read uncontrolled text much earlier than usual, and with greater competence (i.e., with greater understanding and with less dependence upon the instructor's guidance or other helps). As a matter of fact, in such a course they would be reading normal Greek structural forms almost from the beginning of the course; and they would have read, by the end of the course, a greater quantity of text, much of it at a higher level of difficulty, than students usually get to do in a course based either on one of the standard grammars or on an uncontrolled, heavily inductive presentation (which sets up psychological barriers by making the learner attend to too many details, some of them insignificant, at once).

The study of the structural characteristics of the N.T. Greek text also helps to indicate how to combine to best advantage the values of a "deductive" or descriptive presentation of formal grammar and of the inductive reinforcements to be gained through controlled reading, without subjecting the student to the annoyances and shortcomings of either the deductive or inductive extremes. Formal grammar would not have been slighted, but it would have served its proper function in the fostering of reading.

The net result should be students better equipped to begin the reading of Acts and the Epistles, to make more intelligent use of the advanced grammars, and to enter into significant exegetical work, either in private study or in a second year of formal class work if that is open to them.

Postscript. The writer is aware that he is not alone in this desire to work out better approaches to pedagogical problems in teaching the biblical languages. Some of you are also working on various projects related to this subject. It would be advantageous for us to share viewpoints and insights which would help each of us in our common task, and to enable us to make more significant contributions to the training of competent exegetes of the biblical texts. It is the writer's hope that a fellowship of instructors in the biblical languages might be developed for such a purpose of mutual encouragement. Communications from any and all of you who are interested will be welcomed. The address is as follows:

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NOTES

1. A paper, revised and slightly expanded, read at the Eleventh Annual Meetings of the Evangelical Theological Society on Dec. 29, 1959, at Wheaton College, Wheaton, Ill.

2. Charles C. Fries declares: "In learning a new language, then, the chief problem is . . . second, the mastery of the features of arrangement that constitute the structure of the language." (*Teaching and earning English as a Foreign Language* (Ann Arbor: University of Michigan Press, 1945), p. 3. Cf. also McCullough, Strang, and Traxler, *Problems in the Improvement of Reading* (New York: McGraw-Hill Book Co., Inc., 1946), ch. 2; Hartmann, George W., *Educational Psychology* (New York: American Book Co., 1941), p. 454; and numerous other studies.

3. Native speakers of English recognize verbs as distinct from nouns since they know by experience that they belong to different inflectional and positional series. In numerous instances, as a matter of fact, position and not inflection is the important factor in recognition.

4. Cf. Tiffin, Knight, and Asher, *The Psychology of Normal People* (Boston: D. C. Heath and Co., 1946), pp. 530-31; M.V. O'Shea, "The Reading of Modern Foreign Languages" in Edward H. Cameron, *Viewpoints in Educational Psychology* (New York: The Century Co., 1930), p. 422; Eugene A. Nida, *Learning a Foreign Language* (New York: Friendship Press, 1957), p. 23.

5. Those referred to are the well-known grammars for beginners by W. H. Davis, J. Gresham Machen, and Ray Summers, respectively. A survey by a colleague indicated that these are currently the most widely-used elementary grammars in a large number of schools.

6. In Davis, Summers, and Machen, respectively. It is also interesting to note that H. P. V. Nunn treats those in —*eo* in his 4th lesson, but leaves —*a* and —*o* stem verbs to the 28th of thirty-nine lessons. Huddilston has no lesson as such on vowel-stem verbs; while C. B. Hale (*Let's Study Greek*) leaves them to the 45th—47th of fifty-four lessons, just before the reading of I John is to begin.

7. The density of contract verbs in I John is 1 in every 2.28+ lines, and in John it is 1:2.8+ lines, as counted in I John in entirety, and in chapters 1, 2 and 5 of John (263 lines and 267 lines respectively). The greatest number of different verbs occurred in John.

8. Counted in the recently-published second edition of the text edited by Erwin Nestle, of the British and foreign Bible Society. Words-per-line average 7.45+.

9. In I John, 80 *einai* presents occur to 106 of other present indicatives. In John, the ratio is 30 to 92. John also has 25 imperfects of *einai* to 17 of other verbs.

10. These trends also remained fairly constant when the counts for the entire twenty chapters (i.e., five each from the four books cited), totalling 1791 lines, were totalled.

11. This point was also recently made by Dr. Werner Winter of the University of Texas in his paper, "Syntactic Frequency, Syntactic Norm, Style," read at the annual meeting of the Linguistic Society of America, Chicago, December 28, 1959.

12. In the presentation of the various structural patterns, such principles as (1) simplicity, (2) similarity to patterns, in the learner's own language, and (3) natural association of related items (e.g., accusative nouns with verbs and with prepositions) which make for economy of learning, must sometimes take precedence over frequency.

13. The very considerable similarity between structural forms in I John and in English was demonstrated in a B.D. dissertation produced in Central Baptist Seminary under the writer's direction, titled: "The Major Syntactical Patterns of the First Epistle of John."

14. Following the treatment of adjectives with that of participles is an instance in which the principles of simplicity and of association of related items conjointly take precedence over frequency. Adjectives are less frequent than participles, but they make the introduction to participles simpler if presented first.

15. Statistical studies of the relative frequencies of the major noun declension types, and of preferred orders in those constructions which allow optional orders of internal constituents have not been undertaken yet. Neither has a point-by-point comparison of the Greek and English expression systems ever been carefully undertaken (cf. Robert Lado, *Linguistics Across Cultures: Linguistics for Language Teachers*. Ann Arbor: Univ. of Michigan Press, 1957). The writing of first-class pedagogical grammars for N.T. Greek will be seriously hampered until such things are done.

16. M. V. O'Shea in Cameron, op. cit., p. 421; Hartmann, op. cit., pp. 309, 454; Nelson L. Bossing, *Progressive Methods of Teaching in Secondary Schools* (New York: Houghton Mifflin Co., 1942), p. 636.

17. The writer and colleagues have produced aids of a type which are designed to reduce the vocabulary difficulty of the beginning reader to a minimum. Aids of a similar type are available also for the book of Genesis in Hebrew. These aids are based upon the frequency characteristics of specific sections of the New Testament as compared with the frequency characteristics of the New Testament as a whole.