SUB-REGIONAL SPEECH VARIATIONS IN VOCABULARY, GRAMMAR, AND PRONUNCIATION

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Gordon R. Wood

Southern Illinois University

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PREFACE

I am indebted to more persons than I can possibly name in this space. I have acknowledged on the cover sheet my obligation to the Office of Education, U.S. Department of Health, Education and Welfare. To that I should like to add my thanks to:

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1. Problem

The computer based problem studied here is an analysis of elements of English vocabulary, pronunciation, and sentence structure found in the speech of a sub-region. The region in this instance is Alabama, east Tennessee, north-west Georgia, and north-east Mississippi. The source of evidence is a body of American English speech contained in tape recorded responses of 33 native speakers from counties in that area. (Map 1) After these tapes had been transcribed and the text had been punched for computer processing, it was possible to examine the geographic occurrences of portions of the lexicon and to compare these occurrences with similar compilations of pronunciational and syntactical evidence. The computer has served in an impersonal way to assemble and compare quantities of detail within a reasonable time.

2. Hypotheses and Observations

Because of its operational convenience one untested hypothesis has been accepted: it is that language has system.[1]

These follow from it: (1) There are identifiable lexical, phonological, and syntactical subsystems. (2) The subsystems can be found in samples taken from a larger body of evidence. (3) The subsystems have similar and perhaps identical geographic distributions within this subregion.

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1. Of course, this hypothesis appeals to common sense and has wide acceptance in linguistic studies. Since this is a subregional study, we see no convenient way to test a hypothesis about the total system when only local evidence is available.

The first objective of the study is to use computers to produce localized listings. In other words, the computer reports the presence of particular items at specific places so that in turn we can answer these questions:

1. What elements in the lexical and phonological systems have counterparts in the subregional systems reported for the Atlantic States?

2. What distributional relation do other items of lexical and phonological evidence have to those identified above?

3. What elements of a grammatical-syntactical subsystem can be identified by computer techniques?

4. For the elements so identified, what is their relation to the occurrence of lexical and phonological items?

Note particularly the hypothesis that subregional American English has a common set of uniformities in the distribution of lexicon, phonology, and syntax. This may seem to be a pseudo-hypothesis, set up simply to be knocked down. Our knowledge of vocabulary in the counties of Alabama and Tennessee now under study provides examples that regional differences do appear in word choice. At the same time, the present inquiry may show that such differences are part of the larger linguistic systems and as such deserve less emphasis than has been given them.

3. Related Research

This report is indebted to investigations in the regional characteristics of American English, in grammatical-syntactical features, and in computer based linguistics.

The first, regional characteristics of lexicon, is illustrated in Kurath's study of data collected for the proposed Linguistic Atlas of the United States and Canada. His Word Geography (1949) maps the occurrence of many regional words in the Atlantic states and demonstrates from their distributions the concept that American English has three major dialect areas, Northern, Midland, and Southern. The westward advance of these three dialects has been studied; for the present inquiry Atwood (1962), Allen (1958), and Markwardt (1957) set limits beyond which certain distinctive words are not commonly reported; and Wood (1963), using a different method of gathering data, mapped the occurrence of Northern, Midland and Southern words in eight states of the interior South. (Map 2)

The second sort are investigations of the pronunciation of American English. The phonetic-phonemic statements of immediate importance are those in Kurath-McDavid (1961).[1] The choice of this analysis in preference to other studies of the pronunciations of American English is governed by a specific and systematic display of local vowel and diphthong sounds and by the identity of sources of data, the Linguistic Atlas worksheets from which the Word Geography derived. Thus particular words which Kurath and McDavid used to illustrate the pronunciation of vowels and diphthongs were chosen as a part of a search

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1. This choice involves rejection of part of the long dominant Trager-Smith concepts advanced in An Outline of English Structure (Washington, D.C.: American Council of Learned Societies, 1957). Since phonemic problems do not enter grammatical analysis in this study, we mention this simply as a matter of record. Philip Lieberman, Intonation, Perception, and Language (1967) appeared too late to be used in our study.

list for transcribed words in our investigation; the scheme of presentation is essentially the same; the details of analysis differ -- a point to be discussed later.

Procedures for eliciting words or sentences vary. Kurath and others using the Linguistic Atlas techniques depend on trained interviewers who select persons within a county, use a restricted questionnaire to obtain spoken responses, and transcribe those responses in a finely graded phonetic alphabet. Wood in his first study of regional vocabulary in Alabama, Tennessee, and adjacent states used a printed questionnaire. These persons, selected county by county, were asked to encircle words they commonly used in a list based on the regional vocabularies being sought for the Linguistic Atlas.

Each procedure can bring an element of bias to the information obtained. To overcome various sorts of bias and to produce records that could be truly compared both within the same language and across languages, Sapon prepared a pictorial interview manual; Wood augmented this manual by introducing numbered pictures which he believed would increase responses that showed regional linguistic features.[2] This revised manual stimulated the responses for our study reported here.

The third is in the development and application of grammatical theory. English grammar and syntax have remained essentially unchanged

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2. Stanley M. Sapon, A Pictorial Linguistic Interview Manual (1957), augmented by Gordon R. Wood, 1959. Sapon provided 155 numbered pictures. The person interviewed was told to give the number and to name the objects in the first 135 pictures, to give two or three sentence descriptions of the animal life depicted in the next 12, and to describe in detail the activities shown in the last 8, hazarding a guess about their causes, effects, and the like. Wood added 39 new pictures.

over the past hundred years; statements of that grammar, however, have undergone revision at least twice during the twentieth century. At the beginning of the century, classroom grammars of English reflected prescriptive concepts derived from instruction in Latin grammar. Traditional scholarly grammars, historical in their orientation, used the same technical vocabulary to describe parts of speech and sentence elements and to develop refinements in the analysis of printed English.[3] A significant break with these traditional procedures, called "descriptive linguistics," shifted its emphasis from written to spoken language, leading to the notion that each language is unique, a system to be examined by and for itself. The rules of word and sentence formation, of grammar and syntax are to be derived from a direct observation of the way sounds are thought to contrast and unite so that words are built from a limited number of spoken parts, and sentences are identified by rising and falling patterns of intonation.[4] A more recent approach to grammatical problems is called "generative-transformational linguistics." It has sought to devise theories by which all and only grammatical sentences of a given language can be generated. Its procedures have been extended to phonology, but the main emphasis is

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3. An American contribution to the development of scholarly traditional grammars is George O. Curme, A Grammar of the English Language (1935), 2 vols. Prescriptive statements about English grammar and the traditional school method of grammatical analysis are illustrated in Edwin C. Woolley, Handbook of Composition (1908).

4. It is customary to trace "descriptive linguistics" to the influence of Leonard Bloomfield. His Language (1933) will serve as a convenient point of origin for statements of that procedure. After 1950 school grammars began to show influences of structuralist thinking. Among these one would include Charles C. Fries, The Structure of English: An Introduction to the Construction of English Sentences (1952).

still on sentence organization. In the process of developing this linguistic theory, some of its formulators have dismissed the work of structuralist grammarians as "trivial."[5]

The preceding paragraph is simply a note on selected grammatical concepts which have been presented during the past three quarters of a century. Each concept has undergone modifications; furthermore each has been both indebted to and countered by other descriptive and analytical methods. Even so firmly stated a set of procedures as those in Syntactic Structures is being modified as is shown in the same author's Aspects of the Theory of Syntax (1965).[6] These theories have had an impact upon two studies which are basic here: In actual analysis, we used concepts of syntactic relationships in Stolz (1964) and the grammatical categories assigned to selected groups of words listed in Jones and Wepman (1966).[7] The analytical tools we selected, then, are ones which derive from interpretations of structural and transformational linguistics.

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5. The book commonly cited as the starting point for discussions of "generative-transformational linguistics" is Noam A. Chomsky, Syntactic Structures, Janua Linguarum, Series Minor No. 4 ('s-Gravenhage: Mouton, 1957).

6. See P.H. Matthews' review, Journal of Linguistics 3, 1 (April 1967), 119-152. For surveys of grammatical concepts, see Francis P. Dinneen, An Introduction to General Linguistics (1967), and H.A. Gleason, Jr., Linguistics and the English Language (1963).

7. Stolz' contribution is of this sort: "The constraint of individual word-types . . . decreases sharply as the distance

4. Procedures

4.1. Preliminary Work

As has already been stated, the tape record for this study was made in 1959 and 60. From the entire body of recordings, the responses of 33 persons were selected for close investigation.[8] The speakers range in age from 20 to 80; they are of both sexes; their education ranges from early grades up through university graduate study. By virtue of their birth and upbringing the speakers adequately represent native adult speech in their respective counties. (Table 1)

A typescript was made of each selected tape record. All recognizable words were spelled conventionally, with spacing between words; fused expressions like gonna were expanded to going to; contracted forms of verbs and possessive forms of nouns and pronouns were retained and were punctuated conventionally -- don't and boys'.

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from predictor to the predicted if farther than three words to the left or two words to the right from the predicted word." (p. 130)

The two works differ in these particulars:

	No. of Thematic Apperception Test Pictures Used	No. of Persons Interviewed	Data	No. of Grammar Categories
Stolz	5	32 (college students roughly same age)	Spoken & Written	18
Jones & Wepman	20	54 (all levels of education all ages)	Spoken	13

8. Certain tapes were rejected because the recording itself was poor, because the informant talked at random instead of following the pictures of the manual, or because the informant had lived in so many places that the speech pattern could not be considered representative of any county.

Periods and other marks of punctuation were inserted according to the typist's training; these marks (apostrophe, comma, period, and semicolon) were removed or altered when the data cards were punched since, punctuation was not viewed as being a reflection of any speaker's intonation patterns. Uh, ah and the like were omitted from the typescript;[9] interruptions or other comments by the interviewer were noted in code but not transcribed.

While the transcriptions were being made, details of card punching and of the computer programs were formulated. Some details were modified during the test runs of the programs, but in general no significant departures were made from these original plans. The computer would be directed to parts of the lexicon (LEX program), of the sentence design (SYN program) and of the pronunciation (FON program). From these three programs of machine analyses would emerge tabulations which we hoped could be compared further. (Appendix C, Flow Chart).

The punching design that emerged in 1966 has two functions, first to provide a text for lexical and syntactical analysis, and second to provide a separate text for phonological comparisons. From the beginning it was obvious that machine requirements would cause us to separate speech (phonology) from speech (lexicon) and

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9. Maclay and Osgood, (1959), show that these hesitations occur in patterns. Inclusion would have complicated the analytical procedures unduly. At the point of their greatest utility, i.e. in the syntactical analysis, they would have had to be removed by computer since they do not fall into grammatical categories in Jones-Wepman (1966).

that the comments about grammar and syntax would not have a large phonological component if any. In the present stage of computer technology no solution to this difficulty has come to our attention. All things considered, it seemed productive to link vocabulary and syntax rather than phonology and syntax.[10]

For interpreting the computer format of lexical texts which accompany this study, it is necessary to know these conventions: The left hand entry designates a general geographic area and a specific county. A01 and B24 mean area A, county 1 and area B, county 24. The next number identifies the person in terms of that county: A081 and A082 are two different persons in county 8. Next is the age and education code, expressed as a letter.[11] Next is the printed representation of the spoken sentence, four words to a card; at the extreme right is the number of each card in its sequence. (Appendix B) (Map 1)

In the computer texts are words and special symbols used as comments or machine instructions. A single period, added solely for the convenience of readers, is treated as a machine word. Other special signals are LEX, SYN, and FON which identify the program being carried out. HINTW and HINTQ show that an interviewer interrupted either to

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10. P. Stockwell, (1960), provides a method of notation which shows intonation patterns numerically. The method, however, did not lend itself readily to the requirements of coding and comparison which are basic to our study.

11. Age and education could be coded separately. Since age and education are intertwined, we chose to code them singly; if in the course of the search evidence had suggested that age or education needed to be treated by itself, then simple sorting procedures could be ordered. In the printed listings, the age-education code provides a visual means of testing any lexical problem that arise.

supply a desired word or to ask a question which would lead to that word. OMIS is a comment that the informant's response does not begin with the name of a number. A slash replaces an apostrophe in contracted forms of the verb and an asterisk replaces the apostrophe in noun possessives: CAN/T and BOY*S. The double period . . and the entry 1 SEE are instructions to the machine. (Appendix C)

4.2. Current Study

Data forms were prepared from an edited version of the original typescript; in turn these were punched and listed. The resulting listed text was edited at least once by comparing it against the original tape recording. After corrections had been made, the cards were put into the LEX program since this program searched each card fully, checked the coding and the column punching, and noted errors. When errors appeared, the faulty cards were corrected and the process of analysis began again.

The final output selected for this study is a running text of 15,600 words. (Table 2) From the total text, lexical words were extracted to serve as the base for the distributional analysis of their occurrence in the counties; further the chosen lexical word became the starting point for analyses of stressed vowels and diphthongs, and the center for collection and analysis of the grammar and syntax of words both to the right and left of it. Since the informative words that can be most readily compared by computer are generally nouns when persons look at the same picture, our analysis is noun centered. No harm comes from this choice so long as we realize that other kinds of centering remain unexplored here.

4.21 Lexical Distributions

Within the subregion one aspect of the lexical system is illustrated in the occurrence of nouns and nominal constructions. At its most general all speakers choose the same noun. From that common use, we find gradations in the choice of synonyms until at last we reach persons whose response differs from that of all of their contemporaries. Someone will say antelope, for instance, when others have said grasshopper, (No adjacent picture could have served as the source for this apparently wild choice.) The lexical system is intact because each has said a noun; the puzzle lies in one speaker's choice of so special a token. Ordinarily we would dismiss it as a slip of the tongue; in this report, however, we will discuss some implications of single choices.

At this point it is appropriate to comment on responses to pictures. In some instances a speaker clearly indicates that he knows a synonym but has chosen its counterpart: "all my life I have called them pecker-woods" is an explanation given after the person has said woodpecker. In other instances the picture itself is an object of comment: "Lightning bug? That's a poor picture of a lightning bug." In still other instances, cultural overtones of the picture serve as some kind of distractor. English speakers would have expected at least two different pictures to elicit the words jugs and urns, two of several responses to a single illustration which in Spanish speaking communities of Texas would be called an olla.[12]

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12. Atwood, (1962), indexed under olla. Pictures in the interview manual were drawn initially for Mexican informants; hence olla is the expected response in the culture for which it was drawn.

Procedures for responding exerted an influence on the data selected for tabulation. From those pictures for which a short identification and naming of objects is required, we obtain the most explicit lists of words that can be compared county by county. From the next set, those that require additional commentary, the lists are satisfactory but the distribution is more difficult to interpret. When, for example, one group reports that hogs are eating apples while another group says that they are eating slop, the presence of one word does not exclude the knowledge of the other. The picture itself contains objects that look like apples; the choice of slop, a regionally significant word, may simply indicate that in that locality the phrase hogs eating slop is a linguistic whole which is induced by and limited to that situation. It does not provide the best evidence that the regional slop has its distribution only in these counties.

The least satisfactory group for producing word lists by county is that set of pictures which require an extended narrative. One gets useful words, but again the county by county comparison suffers. One picture, for instance, produced the synonyms boy and ruffian; boy we know is usual throughout this subregion; ruffian is recognized, though perhaps drop out would be the synonym that would replace it if the picture were shown today. Ruffian was not said often enough to provide the best comparisons and contrasts. In seeking appropriate words from another picture, our choice of salt and pepper shakers arose from their frequent presence as regionally contrasting synonyms of salt and pepper shakes. This tabulation is more significant for our purposes than that of the adjacent responses turkey and chicken, a matter not of regional difference but of interpreting the picture. Indeed, salt and pepper itself could have been

examined as an area entry within this subregion since some speakers reverse the word sequence, calling the containers pepper and salt shakers. But because other examples of variable word order were not tabulated, we instructed the computer to consider these variants as the same word.

From an examination of the test printed by computer, it will be apparent that in this section of the study lexical words differ from text words. (Appendix B) The latter are words, 12 characters or less, as punched and printed. Lexical words, on the other hand, may include several text words; a hyphen has often been used to instruct the machine to classify them as units. The number 200, for example, is two text words joined two - hundred.

Maintaining this distinction between the two kinds of words was simple so long as we limited ourselves to numbers. When we came to names of other things we made decisions according to the computer problem at hand. Grasshopper is a single response, conveniently falls within the 12 character limit, and is treated as one word because it has no variant parts. Woodpecker, on the other hand, has a variant already mentioned, peckerwood. Sorting and tabulating was simplified by punching one as a single lexical and text word, and the other as a lexical word made of two text words with a hyphen. It was decided though that the element red head(ed) need not to be marked as a part of a lexical whole, red-headed-wood-pecker; red-headed serves no purpose in establishing regional distributions. But fence, barbed-wire fence and rail-fence were marked so that they would be classified as different lexical words.

With these preliminaries out of the way, we can now examine the ranges of lexical distribution. Representative words found in the entire

subregion are stove, towels, tiger, queen, and automobile. A list of lexical words prevalent throughout the subregion provides a base for judging the relatively local nature of their synonyms. (Table 3)

These words set the norms of lexical performance in the regular selection of nouns. We must turn to other examples in search of permitted variation. Our first concern is to determine what record is available of that body of regional words brought into Tennessee and Alabama after the end of the American Revolution: (Map 3)

4.23 Southern Concentrations

Evidence for surviving instances of the Southern dialect is slight.[13] Mosquito hawk, the Southern synonym of dragon fly, occurs in two counties. Examples occur of earthworm and eel worm; these words also have origins elsewhere in the Atlantic states. Wood bench, a synonym for saw horse is not discussed in Kurath but his map (Figure 81) shows a concentration of saw bench in coastal and piedmont North Carolina. Hazarding a guess, we suggest that saw bench was brought westward and that its new users substituted wood as a means of identifying its function, that of supporting wood while it was being sawed. Two other words are included even though we have no report of their points of origin in Atlantic speech areas. They are gopher, a local name for turtle, and catalpa worm, one of the names of worms used for fishing. (Table 4) We were especially interested in gopher for we had heard persons in the Southern states use it when

13. Southern as used here is that body of coastal and lower piedmont words from Virginia, the Carolinas, and Georgia according to the classification, listing, and mapping in Kurath (1949) and in McDavid's chapter and maps in W. Nelson Francis, The Structure of American English (1958).

speaking of turtles. As for catalpa worm, it is a different sort of worm from the reddish earthworms that are meant in the bulk of other responses to the picture; the picture itself gave only the broadest indication that a worm of some kind was the bait. Their local distribution does help us delimit the area.

The Southern dialect area is thus restricted chiefly to counties of south Alabama. (Map 4) This distribution conforms to an interpretation of lexical evidence already advanced elsewhere to the effect that a major boundary between Southern and Midland lies along the Alabama - Georgia state line; or, to state it negatively, the Southern dialect is not extensively represented in Alabama.

4.24 Midland Concentrations

Midland and South Midland evidence is more abundant. Its present distribution is a reflection of the movement of settlers from Virginia and North Carolina into eastern Tennessee and of later expansions. The Tennessee River (counties 1-13) provided a route into the interior and also led to avenues into the lower South (counties 20-29).

Before we interpret what does appear, let us note a negative instance. The Midland word worm fence and the piedmont hoppergrass do not occur though their presence is attested to in the formative regions of the Atlantic states. (Kurath: pp. 55, 74) Personal editing may have suppressed hoppergrass as we know it did in the instance of peckerwood. Worm fence, on the other hand, does not seem to contain elements which would cause speakers to hesitate to say it. If we assume that both words were originally known in parts of this subregion, we must conclude that

they have been replaced by other words. If not known, then the result is the same. A part of a formative regional vocabulary has not established itself in the counties studied.

Going now to the positive evidence, let us consider rail fence. From present distributions it appears to have entered the region from two regions. That probably originating in Virginia and North Carolina is reported in counties 1 through 11; that which could have accompanied coastal Southern words is in counties 22 through 29; its absence in counties 20 and 21 suggests that no southward dissemination of the word took place from those Tennessee and north Alabama counties we first mentioned.

Other words follow the line of the Tennessee River and then move southward. Peckerwood, "common in the folk speech of the Virginia Piedmont and . . . in the mountains of North Carolina" (Kurath: p. 74) is widely reported; we do not get the impression from our informants that the usage is viewed as folk speech, though there is a hint that younger, college educated persons use it on less formal occasions than are found in the course of making a recorded interview. Red worm, the worm commonly used in fishing, may have originated in Pennsylvania. It is the "usual expression" in the mountains of North Carolina, Virginia, West Virginia, and Kentucky. (Kurath: p. 74) Two local words for dragon fly are the Midland snake feeder and the Virginia snake doctor from the piedmont. The first is reported mainly in Tennessee; the second mainly in Alabama. (Table 4) No explanation of this distribution comes to mind.

When we map these words we get a composite which shows that main contributions to the present regional aspect of subregional vocabulary in

these counties have come from the Midland and especially South Midland. Further, we notice that the direction of this influence is both along the Tennessee River and south from it toward the Gulf of Mexico. Midland words are well established in the Southern dialect area of Alabama. (Map 4)

One set of words has not been examined up to this point because it seems to be at variance with preceding interpretations. Here is Kurath's comment on faucet (p. 56), the word in question: "The water faucet is known by that name only in the Northern area. The entire Midland and South have spicket (occasionally spigot). Faucet, to be sure, is not entirely unknown in this sense in the Midland and the South." Our evidence is that faucet is the usual word and that spigot is scattered, with at least three instances outside the area of main Midland concentration. If spigot was the original word, then clearly faucet is an innovation that has replaced it. Perhaps both were introduced at approximately the same time. The wider use of faucet, then, may reflect the presence of various commercial influences. This possible replacing of one acceptable word by its equally acceptable synonym gives us a hint of the lexical dynamics at work within the subregion. (Table 4)

Special Concentrations

Two concentrations from other points of origin are to be noted. (Map 5) In counties 20, and 7 through 10 rack or wood rack is used for saw horse. Kurath (1949: p. 59) places it in southern Ohio with "no trace farther east." In county 2 are single instances of fire fly instead of lightning bug, zig zag fence for a kind of rail fence, and

fishing worm.[14] Zig zag fence is mapped in New England; fishing worm is from three possible centers. The one to exert initial influence upon the regional vocabulary of east Tennessee was upland Virginia and North Carolina, the region west of the Blue Ridge; next was western Pennsylvania and as pioneer settlements developed, the adjacent parts of West Virginia and Ohio. (Map 3) Into northern Pennsylvania, the route of fire fly, a synonym for lightning bug, is from further north, "Brought by New England settlers". (Kurath: p. 33) (Table 4)

4.33 Numeric Lexicon

During the course of an interview it is difficult to get persons to say numbers in an entirely natural way. When we ask them to call a designated number or to count from one number to another, these instructions cause speakers to speak more formally than they would in ordinary conversations. The design of the pictorial interview procedure helps us overcome this difficulty. Successive pictures are assigned numbers in no apparent sequence, and the informant is asked simply to call the assigned number before commenting on the picture itself. This specific and apparently random aspect of each number, its function as an introduction to a subject which requires comment, and its change with each new picture are provisions to insure that speakers will ordinarily choose the conversational rather than a more formal name.

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14. The picture produced responses such as "fishing with a worm". Clearly fishing worm could have been the result of this combination of circumstances. But, since other persons named other sorts of worms, the response was interpreted in each instance as a specific regional name.

Community practices establish the ranges of choice. School obviously provides one standard of formality. Readers may recall drill sessions in which they practiced calling 152 one hundred and fifty two, clearly enunciating one and and along with -dred instead of -ert in hundred. Some may remember school room elegance which insisted on eight thousand no hundreds and eighty six as the name of 8086. Outside the school room conversational custom permitted reducing and to a syllabic n while at the same time it required 0 (zero) to be said as an explicit oh. Subregional practices show a permitted range of choice; at the same time a preferred choice within a county leads to a grouping of counties according to differences in local practice.

4.34 Number Names

All speakers within the subregion use the same names for any whole number below 100. Beginning with 100 they have a range of choices which permits dropping first elements in the name of the numeral if certain of those same elements are kept. When a number lies between 100 and 199, speakers usually omit one and reduce and to syllabic n. When it lies between 200 and 999, their preference is to treat it as a set of two numbers and to call the two in sequence without a connecting word. A less common practice is to use and; least common is to treat the number as a sequence of three separate numerals. An example will make these preferences explicit. The usual lexical words of 112 and 311 are hundred and twelve, and three eleven; rarer are one hundred and twelve, three hundred and eleven; almost unique are strings like three one two.

Because of our decision to use five pictures numbered 1,000 or above, we have a small but probably adequate body of evidence for the names of numbers of this magnitude. The main preference again is to reduce a large unit to sets of smaller units with the result that the usual lexical names are sixty fifty five (6055) and eighty eighty six (8086). As has already been stated, zero is regularly called oh. Full names like six thousand one hundred and fifty five are rare. (Tables 7, 8, 9)

4.4 Lexical Densities

Density maps enable us to discover where a particular usage is preferred and whether that preference relates to other known regional distributions. The map of preferences of oh as a part of the number string places centers of density in counties 4, 11, 12, 20, 21, 25, 26, and 27. That for the n reduced from and has densities in counties 6, 10, 12, 22, and 24. And finally the map of strings of number names shows this pattern concentrated in counties 1, 3, 4, 5, 8-12, 20, 21, 23-27, and 29. The subregion, then, has area preferences which sometimes intersect but often are distinct. (Map 5)

If ever there was a time when the vocabulary of this region could be divided into that of the mountains (Area A) and that of the lowlands (Area B), that time has passed. Communication and movement from the mountains to the coastal plain and back have assured interregional mixtures. When the vocabulary maps are compared, we notice that axes of agreement may begin with county 1, split at county 8, and continue from there to counties 13, 24, and 26. A second links counties 7 and

24. A third links counties 9, 10, and 11 with county 26 or counties 23-27 or with both.

One lexical hypothesis to be tested is that the numerical vocabulary had a common subregional distribution with that of the identifiable regional vocabulary. The density maps show that number strings such as three eleven occur in those counties which report densities of Midland words like red worm. On a smaller scale, the concentration of syllabic n for and occurs in the Southern counties in southeastern Alabama. (Maps 4, 5) In both instances there are counties which provide no match; the syllabic n, for instance, appears in counties along the Tennessee River not included in the Southern area. But differences of this sort appear in the word distributions in the Atlantic states, a region of greater dialectal stability than is found in those parts of the nation settled after 1800.

4.41 Aspects of Change

The implication thus far has been that changes in vocabulary are a reflection of movement and communication within this region. Other factors such as obsolescence need to be considered. That a word is rarely used may show that it is about to be discarded. Students have told us that antelope is indeed a local word for grasshopper; if so, it can be considered with woodchuck, an attested synonym for woodpecker (Atwood, 1962: 58). In these words the probability of semantic confusion and the prevalence of the synonyms grasshopper and woodpecker tend to speed the process of obsolescence. The words will remain; the special meanings will probably disappear.

With numbers our problem is different. To call 312 as three one two is to suggest a lack of instruction in the customary name of numbers. Attendance at school will force the disappearance of this name. On the other hand, a name like six thousand one hundred and thirty five will be reserved for use in school rooms and for those occasions which require great precision in calling a number. The usual short names have sufficient redundancy in themselves to meet our daily needs.

A second factor, the need for innovations, is best explained if we divide our collected lexicon into animate and inanimate categories. Additions are few to the animate list. Bone, beard, tiger, or flower, to add examples to the words already discussed, are linguistically sufficient for most occasions. The occurrence of gladiola instead of flower suggests a technical interest found in women's garden clubs. But hold-up man instead of the older robber, and traffic policeman as a specialized development from policeman depend in part on our response to the public presentation of events by means of print, radio, and television.

The list of inanimate things is a better source of evidence for the range of innovating lexical variation. Rail fence and its more local synonyms are Americanisms which were an outcome of pioneer life; dissemination of a given name depended on the movement of people from one locality to another and not on the product itself. With the advent of industrialization, the commercial name began to accompany the product where ever it was sold. Barbed wire, manufactured at the end of the nineteenth century, makes barbed wire fence an inevitable choice everywhere; variety occurs only in the pronunciation of the parts of the name itself.

Stove had its compound forms in cook stove and range stove. When new sources of heat are made available, then the identifying words are linked with it to form the words oil stove, gas stove, or electric stove. The chosen subregional word is determined by available fuels. The use of eyes instead of burners may have a regional aspect depending on spoken dissemination rather than on commercial terminology; our study, showing the presence of one and the absence of the other, does not cover a sufficiently wide geographic area to permit more than a guess. Fly swatter (or swat) is a manufactured thing; its entry in the Dictionary of Americanisms is dated 1931 but the words of the illustrative sentence look back a generation or so. With the appearance of insect sprays our need to talk about fly swatters has been reduced though not far enough to make the word obsolete. Ice tongs or ice hooks have become obsolescent with the disappearance of the ice man who once carried blocks of ice into the home; their use is now largely a part of the trade jargon in those plants which freeze and move large blocks of ice.

Car and automobile are common synonyms; we were surprised that auto was not named. Get-away car, of course, is a word from the language of publicized crime. Revolver, an Americanism from 1835, is a synonym for gun and pistol in this subregion; presumably the three are national synonyms except in the usage of those speakers whose technical knowledge requires them to distinguish revolvers from pistols and both from guns.

As for the national language of health, capsules, pills, and drugs must be entirely familiar; presumably the subregion will attach a national meaning of "narcotics" to drugs, but the evidence from our study is ambiguous since the test picture displays objects but does not identify them.

Mortar and pestle may be obsolescent; certainly (druggist's) mixing bowl is at least a geographically restricted usage. We have no useful way of discovering the full truth from the collected data. The mortar and pestle are a part of the public image which druggists display in their stores, but viewers may not know the names of the things displayed. In that case, mixing bowl might be the most likely set of words to come to mind. Pharmaceuticals, on the other hand, are a trade term used by those who manufacture, sell, buy, or prescribe medicines. The general public would recognize it as such and would say it, if at all, under very restricted circumstances.

4.42 Lexical Summary

The lexical system in the subregion is marked by gradation in the choice of nouns and nominal constructions. Geographically the range is from words reported in all counties by most speakers to the single county report by one speaker. The axes of similarity in word choice link Area A with Area B, indicating a dissemination of Midland vocabulary into a Southern region, the main direction of linguistic drift; and a less dynamic intrusion of Southern words and words of similar distribution into the Midland vocabulary. While the lexicon is generally stable within the region, there is evidence of obsolescence; further innovation arises from commercial sources, linking the subregion with national practices.

4.5 Phonological Distribution

The present analysis of phonological evidence is not directed toward establishing geographic distributions of minimally contrasting sounds within the subregion that are ascribed to national American speech; we will limit

our attention to a survey of the geographic distribution of stressed vowels and diphthongs and of postvocalic /r/, major elements in discussions of regional pronunciation.

4.51 Procedures

Before we completed the machine program for phonology (FON), we decided to restrict our inquiry to the pronunciation of single words or at the most to three or four word clusters. The first words selected were those which were found as a part of the lexical program; when this list was found not to have representatives of the full range of vowel and diphthongs, we added enough words to complete the spectrum desired. Nose, for instance, was included because we had no good distribution of that vowel sound in the other responses.

These words were transcribed in the International Phonetic Alphabet system of notation. The original text sought to retain as many nuances as possible through a narrow transcription. It was compared at least twice with the tapes. Then it was punched in an alphabetic code adapted to the limitations of computer symbols. Where a letter for letter correspondence was possible, the code used the same letter; where impossible, it employed an asterisk, an unused letter, or a numeral. A, for instance, stands for the stressed vowel of father, A* for the vowel of fat, X for the vowel of up, and so on. (The IPA symbols and their code equivalents are in Appendix C),

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15. Hultzen, Allen, and Miron (1964) use a number code in preparing phonemic lists. The difficulty of remembering their code and reading their report convinced us that we needed to keep our code alphabetic.

With a narrow transcription before us, we could use that code with any degree of refinement desired. The chief consideration guiding us was the relative elaborateness of any program which would bring together the details that we wanted to compare. If we used fine gradations similar to those in Kurath and McDavid (1961), we could show the personal range of pronunciation of related words like four, door, hoarse, and mourn: FO*U*-8, DO*U*-, HO*U*-8-S, and MO*/-8-N.[16] A machine instruction to bring together all words coded O* would include these words and many more which did not have this diphthong in them. On the other hand, to specify O*/- would limit the collection to the last word in the list above and to words outside the list having the same code. To specify a search for O*U*-, would be to gather all instances but one from the illustrative group. Rather than develop an elaborate program for searching the text and eventually bringing together all these sounds to be counted as one, we decided that a broad transcription would separate vowels from diphthongs and consonants, and each from the other. The punched text, then, is an edited form of the original narrow transcriptions; its details are nearer to phonemic in the linguistic spectrum than they are to a phonic record such as we find in Kurath and McDavid.

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16. The coding variations are based on the Kurath and McDavid transcription 128, Charlotte, N. C. These codes, of course, are in terms of speech rather than hearing. Scholes (1966) tested individual responses to synthetic vowel sounds. His findings illustrate the limitation that a given language puts upon the sounds which its users recognize as the same or different. But because there is no local counterpart to the Kurath and McDavid study, we follow their example. Further, the coding of speech sounds in acoustic terms is difficult; with increases in complexity here, the problems of machine comparison are doubled or tripled.

The FON program searched the text for designated symbols, sorted them, and listed and tabulated the results. Major sorting put the details into one of three groups: Option 1, those with stressed vowels equivalent to one from the list three, six, ear, ten, care, thirty, bag, barn, and college. Option 2, those equivalent to one from two, wood, road, door, sun, frost, and forty. Option 3, originally planned for the diphthongs in five, down, and boy, became a much more inclusive and variable list.[17]

The FON program produced a county by county record of the presence of the vowel or diphthong sound under consideration, a total of responses for Area A and B, and area percentages for each response. Further it listed the coded words used in the tabulations, the options under which designated sounds were sought, and a localized list of coded words which were not a part of the calculations. This printout enabled us to augment the major findings of any search by adding to the tabulations those special instances of vowel or diphthong occurrence which were unprofitable to include in the computer instructions at that point. The specific results are that in the phonological tables we have shown by +1, +2 etc. that we have added instances to the computer tabulations and have

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17. These illustrative words are from the lists printed on the right and left of each localized grid of pronunciation in Kurath and McDavid.

Options 1 and 2 were set with a limited storage capacity in machine memory. Option 3 was left so that it could accept a large number of variables. For that reason, we were able to search for the full range of a given word which occurred by itself or in combination with other words. After the variations of fence had been tabulated under Option 1, we were able to use Option 3 to search for rail fence, barbed wire fence and the like without causing the computer to report that a maximum of 33 responses to any item had been exceeded.

marked them in the appropriate counties. (Tables 10,11, and 12: FON printout illustrated, Appendix B)

4.52 Phonetic Stability

Some vowels and at least one diphthong have a reasonably uniform pronunciation throughout the subregion. The /i/ in checked vowel of cream and feeder, the /I/ in chicken, pig, pistol, sixty and spigot, the /u/ of moon, as well as the free vowels of three, two, and boy are the same everywhere. The coding of boy in two ways in the table is best interpreted as a difference of voiceprints rather than of phonemes. (Table 10) For phonetic-phonemic analysis this group of evenly distributed sounds provides a base for comparisons similar to that provided by evenly distributed lexical units.

4.53 Interpretation of Phonetic-Phonemic Variables

In words like fence we find pronunciations which contrast with each other in the way that sense contrasts with since. Strict adherence to a contrastive theory of phonemes would require us to treat the two pronunciations as different morphemes. An alternative is to view one sound as an allophone of the other; then we must decide which is the proper phoneme for purposes of classification. The procedure followed here does not resolve this difficulty; we have simply adapted the presentation in Kurath and McDavid (pp. 130-178), using their labels and our own cross classification.

We have divided the data into three large tables. One, that of the stable sounds, we have already mentioned; the other two are a table of variable vowels and diphthongs, and a table of the variables of postvocalic

/r/. (Tables 10,11, and 12) These display county by county the occurrence of sounds for which we have a record.

4.54 /I/ and Variants

The general distribution of a stable /I/ has already been noted. It is also usual in ear, beard, and mirror; a minority varient in /i/ occurs with these words. /I/ also has currency as a variant of /ɛ / in bench.

4.55 /ɛ / and Variants

General distribution of /ɛ / in the subregion is found in the pronunciation of twelve. Bench, wrench, fence, and nest have this vowel and variants in /I/ and /æ/ The latter occur in counties with a Midland and South Midland lexicon.

Diphthongal variants also occur; beginning with /ɛ / they develop a center or front glide, coded 8 and I* (I8 is used in the comments on /r/). Red headed suggests that variant forms are to be explained in part by word stress. Head(ed) is a monophthong everywhere; red by itself develops a fronting diphthong; as a part of the compound word it has the /I/ or /æ/ monophthongs. The diphthong variant which begins with /æ/ in bear may reflect the influence of the opening consonant /b/.

4.56 /æ/ and Variants

Although /æ/ is adequately represented, we do not have a representative word which reflects that pronunciation for the entire subregion. Lacking a number word, we resorted directly to pictures. The composite results are in the tables. The usual sound is /æ/ in dragon, mask, man, rack, etc. Diphthong variants with front or center vowels occur.

/æ/ also occurs as a variant of /ɛ/ and as a reduced variant of the /au/ diphthong in flower.

4.57 /e/ and Variants

The usual monophthong /e/ in eight, eighty, skates, snake, and shake(r) rhymes with vain and not with bed, an important point in considering westward dissemination of pronunciations from the Atlantic states. Kurath and McDavid give the latter sound as a distinctive feature of pronunciation in "Virginia east of the Blue Ridge" (p. 150).

Fronting diphthongs are variants in skates and rail; the centering diphthong in rail may reflect influences from postvocalic /l/.

4.58 /u/ and Variants

The monophthong /u/ as in pull is the usual vowel of foot and wood. A variant of foot resembles the vowel of two. Wood has a fronting variant that is a diphthong.

4.59 /o/ and Variants

A monophthong /o/ is the usual vowel of cone and roller. When lengthened somewhat it becomes a diphthong, the usual vowel of nose and stove, and an occasional variant of cone. Four has many variables, one of which is a centering diphthong.

4.60 /ʌ/ and Variants

The usual vowel is a monophthong /ʌ/, coded as X in the computer alphabet. Bug and gun have a monophthongal variant in /u/, rhyming with sue. The diphthongal variant in bug is fronting while that in cub is centering. Turkey, turtle, and worm occur in a variant coded UI*,

phonetically [ɜɪ] ; it is found in counties in southeastern Alabama, the area of Southern lexical words.

4.61 /a/, /ɔ/ and Variants

The /a/ monophthong of calm and the /ɔ/ of daughter are sometimes kept distinct and sometimes intermingled. The total number of occurrences in which /a/ and /ɔ/ in wasp and faucet appear side by side is nearly even in both areas. /ɔ/ occurs somewhat more often in barb(ed), arm, stars, and car. It is clearly dominant in forty, horse, catalpa, hawk, and saw. The /a/-/ɔ/ count for hog is complicated by the presence of a diphthong which begins with /a/ and ends with /ɔ/ ; the /ɔ/ monophthong has a wider geographic distribution within the subregion. Except for those induced in response to /l/ in salt and to many kinds of influence from present or absent /r/, diphthongs are not significant variants.

4.62 /aɪ / and Variants

The diphthongal vowel in fly, ice, pliers, wire, and lightning has a diverse set of local characteristics (Kurath and McDavid, p. 109). Our coding reduces this diversity to two general states: (1) the fully articulated diphthong coded AI* or AI, and (2) the severely reduced form that is nearly a monophthong, coded A or A*.

The full diphthong /aɪ / occurs in both areas of the subregion, but its greatest frequency is in Area B. The monophthong /a//æ/ is strongly represented in the responses from Area A, and less strongly in Area B. This latter distribution parallels lexical distributions from the Midland dialect.

4.63 /au/ and Variants

The diphthong /au/ in flower and towels is fully articulated in Area B; the reduced forms /a//æ//ɔ/ , coded A,A*, and O* occur mainly in Area A.

4.64 /r/ and Variants

The absence of postvocalic /r/ is popularly associated with the Southern dialect. In this subregion the facts of the matter are that /r/ is present or absent depending on speakers and circumstances. The tables represent a present /r/ by the code R, and absent /r/ by 8 in most instances but by UI* in turkey.

Even the most careful tabulation cannot show what happens in four forty or in mirror; the latter had so many variants that we finally decided to tabulate the /ɛ//ɪ/ pattern and avoid the /r/ problem. Similarly four forty may have /r/ present in both words, absent in both words, present in the first and absent in the second, or absent in the first and present in the second. Our tables account for some but not all of these possibilities.

Postvocalic /r/ in ear, bear, beard, forty, horse, four, water, doctor, and feeder occurs in most counties of the subregion; its presence in turtle, turkey, and worm is recorded less often.

The "loss" of postvocalic /r/ in these same words is more characteristic of Area B than it is of A; nevertheless, it is recorded for some counties in Area A.

4.7 Phonological Densities

The text, maps, and phonological grids in Kurath and McDavid clearly show the gradations of sound in each regional dialect that are treated as the same distinctively regional pronunciation. These gradations of "same regional sound" are far more varied than are the gradations of "same lexical word". Phonological boundaries do not seem to us to permit the drawing of phonetic isoglosses with the sharpness that we use in drawing lexical ones.

Granting that gradation is characteristic of the Atlantic phonological characteristics, we are bound to expect a larger degree of gradation in the interior states because of the conditions that have brought about a mingling of the Atlantic usages.

The most practical way for us to overcome the effects of this mingling is to discover where densities of a specific pattern occur and then compare those with densities of other patterns. A map of reduced diphthongs from /aɪ / and /au/ , if combined with the /æ/ variants of /ɛ / in bench produces a density map for these features in counties 6, 8, and 21 (Map 7). A similar map showing the counties with the greatest number of /a/ and /ɔ/ variants in wasp, arm, etc. will include counties 3, 4, 10, 20, 21, 24, and 26 (Map 6). The presence and absence of /r/ overlap most often in counties 3, 4, 6, 8, 10, 11, 23, 24, 25, and 27 (Map 9). An important intermingling is that of /ɪ / in fence with /ʌɪ / in worm, turtle, and turkey (Map 8); it makes explicit the dissemination of Midland influences into potentially Southern counties.

When we combine all of these maps, we identify counties 10, 24, and 26 as the centers of great linguistic diversity and contrast. Beside

the locally variant instances which we have mapped are the larger regional uniformities which we have left unmapped. Based on our evidence, these are subregional centers of phonological change.

4.71 The Substance of Change

Unlike the lexicon which varies with aging or innovation, subregional phonology is relatively stable. New lexical words are shaped from customary sounds put in traditional sequences. The system of pronunciation changes slowly, influenced by personal concepts of refined diction, by schooling, by travel, by hearing how the world beyond the region talks. Thus innovations do establish themselves slowly.

If one assumes a general dissemination of Midland features southward, then the reduced diphthongs will be the innovating elements, and /r/ will replace the pronunciations which lack that sound now. As for the /a/ and /ɔ/ variants, each seems to be a satisfactory allophone of the other. If phonological drift favors the more frequently recorded form, then /ɔ/ will eventually prevail. At the present, no such outcome is imminent.

In terms of patterns of geographic distribution, the axes of phonological similarity between counties correspond generally to those of lexical similarity. Each linguistic element has both major and minor links, some of them encompassing the whole subregion while others extend scarcely beyond two adjacent counties. All other things being equal, we must assum that those parts of the system which have the widest distribution will replace the allophonic variants with limited distribution.

4.8 Grammatical and Syntactical Distribution

This part of the study undertook to discover similar and contrasting syntactical patterns having geographic distributions comparable to those identified in the lexicon and phonology. Assumptions that a general system lies behind the more obvious syntactical chains make it difficult to discover anything other than similarities. If, for example, we accept the concepts of deep and surface grammar as presented in generative grammars, then all sentences at a very deep level are represented by the cover symbol S, rewritten next as NP+VP. Only when we come to a surface grammar and its rewriting as particular sentence words, do we reach a level where matching and contrasting grammatical or syntactical elements can be identified. That is when VP (verb phrase) is rewritten as V (verb) followed by NP (noun phrase), in turn rewritten as Det (determiner) followed by N (common noun), then we have reached a level that permits caught the grasshopper to be contrasted with by the grasshopper.

4.81 Procedures

Our first decision was to employ a slot and filler concept as the most practical device for a machine comparison of words in sentence positions.[17] The general design is an eleven slot frame. Any part of speech can be assigned to any slot. Our procedure is to use the center slot as a position for nouns (or nominals) that had been collected in the lexical survey. The

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17. Gleason (1956, p. 80) praises descriptive innovations in Fries' The Structure of American English but adds "the easiest criticism to level against his work is grossness." We recognize that a similar criticism could be leveled against the present study; our reply is that gross features need to be identified before refinements can be introduced. At present, gross features are the ones that we can sort and compare.

computer program (SYN) places that noun and then inserts the preceding words from the sentence in slots A5 to A1 and the succeeding words in slots C1 to C5. The program processes the sentences so that editorial insertions such as periods and HINT are removed, hyphens employed in showing semantic unity are ignored, and vacant slots are filled with six periods.

The SYN printout in part is a concordance text of responses in the sentences being searched. This listing format gives us an opportunity to examine the reconstituted text for similarities and differences that are visually apparent. An extract from item 433, grasshopper, will show an advantage of this format for the observer:

A5	A4	A3	A2	A1	base
four	thirty	three	is	a	grasshopper
hundred	and	thirty	three	a	grasshopper
.....	.....	four	thirty	three	grasshopper

For computer analysis of grammar classes this format has the advantage of listing the evidence by columns which can be inspected and compared with a dictionary. (Texts in Appendix B)

4.82 Aspects of Local Syntax

When we look for detailed compilations of regional syntax that will compare with the lexical and phonological evidence, we find maps of variant forms of verbs (Atwood, 1953), of phrases (Kurath, 1949) or a map and lists (McDavid in Francis, 1958). From these studies we can discover geographic distributions of dived and dove, of you-all and yous, and of sick at the stomach or sick to the stomach. But they are silent on other usages which

arise in the course of a conversation. Qr, to take an instance from print, what can we say about the geographic distribution of preposition plus plural noun in of mornings. That the phrase is cultivated, edited usage is obvious from its setting. It appears in the book review section of The Key Reporter, a publication of Phi Beta Kappa (Spring, 1967), in "a series of letters addressed of mornings to a class". What we need to know is the regional distribution of this usage in preference to or beside each morning, in the morning, or daily, usages which have other syntactical patterns.

For the moment, let us examine regional constructions as McDavid lists them (1958). Sick to the stomach, all to once, to home, he lives in King Street, we stood on line, hadn't ought, and waked up are localized within the Northern dialect area. Some of these contrast with Midland in word choice; others do not. Sick on the stomach and got awake contrast; a little piece ('short distance'), all the further ('as far as') sot down, I'll wait on you ('for you'), and I want off are different. Southern shares features with Northern or Midland, and has some distinctive traits of its own. It contains these: it wan't me, he belongs to be careful, heern tell, he fell outn the bed, on account of ('because'), all two, I ran up on him, he did it for purpose ('on purpose'), I might could, I'm not for sure, I've done told you, and use to didn't.

Those regional differences are sometimes a matter of lexicon and not of grammar or syntax, a choice between on and at. In other instances, the contrasts are syntactical; got awake differs in word sequence and in verb construction from waked up. It is these latter characteristics that we hoped to identify by inspecting the concordance format. We did not think that we would find repetitions of specific phrases that appear in McDavid;

the possibility that a picture would lead even two people to say the same regionally distinctive phrase and that it would be one from his list seemed entirely remote. What we did hope to find was visual evidence for contrastive synonymous structures in the same portions of the reconstituted text.

4.83 Syntactical and Grammatical Fixity

An inspection of the first five columns in reconstituted texts gives an impression that each column is almost exclusively restricted to one grammatical entity. This impression becomes particularly strong if we confine our inspection to those records which contain responses to the number and name only. The syntactical design of these is subject, verb, complement. Since the verb *is* serves as a link between subject and complement, its omission is no problem. But reconstituted statements which lack a verb as in *two* -- *hat* present something of an analytical puzzle. If *hat* is in the base position, we classify it as a noun; *two*, occupying A1 slot, is by slot definition a modifier or a verb. The context tells us that it is neither, but that our classifications can be best preserved if we tabulate it as a quantifying adjective.

4.84 Syntactical Variation

With that decision in mind, let us look at two instances from the lexicon we have already mapped. We know the geographic distribution of *woodpecker*, *peckerwood*, and of *two thirteen* and *two hundred and thirteen*, and the methods used to get the computer to tabulate these correctly as single lexical items. Now if we instruct the computer to separate them into discrete entities which can be placed in successive slots, we encounter descriptive problems. *Wood+pecker*, *pecker+wood* can be viewed as a string of names

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with no syntactic relationship except that the last element being testably a noun (it alone can be made plural) causes the first element to occupy an adjective slot. Whether it has an adjectival function depends on our sense of "modification"; here it is a semantic test. The interchangeable parts show that each influences the meaning of the other, no matter which comes first.

When we consider the numerals, we find obvious syntactical differences between two statements. Two thirteen is a two word sequence; two hundred and thirteen is a four word sequence in which the first two are linked by no open sign except sequence, the third is explicitly a conjunction, and the fourth is the noun linked to the first two. Readers may feel that two does not modify thirteen in exactly the same way that it modifies hundred. The importance of these two forms of the same number is not only in the difference of their syntactical patterns but also in their known geographic dispersion within the subregion. Their distribution and the distribution of similar ways of calling numbers below one thousand is the most definitely mappable body of syntactical evidence that we have. In other words, one geographic occurrence of syntactic variation is shown by the map of these contrasts. (Map 5)

4.85 Simpler Responses

In giving a picture number and a name, our informants regularly ended their statements with the name itself. The reconstituted sentence, as we have seen, puts that name in a base slot and the number preceding it in slot A1: four queen, three grasshopper, seven junebug.[18] As expected,

18. In the tape record transition from number to name is smooth; no audible pause comes between the two; further, no shifting of syllabic linkage takes place as it does when /d/ in barbed is shifted to form /dw/ with wire.

the usual grammatical unit in slot A1 is a determiner, specifically one of the articles a, an, or the. A sample count shows that a is preferred. In item 34 before queen the ration is 20 of a to 1 of the. In item 108 before bone, a is the only choice except for one instance of the arm bone. In 118 before cross and in 433 before grasshopper the ratios are 23 to 1 and 17 to 2 respectively. Item 699 provides a mixture of a and the in a wasp and the nest and the wasp and a wasp nest.[19] At times a choice of the may be influenced by subregional variation comparable to the wife instead of my wife. Visual inspection has not produced evidence for or against this syntactic possibility.

A verb which follows these number words is ordinarily is even when the subject matter is plural as in seven is junebugs. The influence of the number itself is the shaping force, aided perhaps by the singleness of any picture as a thing in itself. The variants of is are phrasal substitutes like must be or may be, or they are other verbs at random in contexts like we have, we call it that, and it looks like. The nearest slot in which is customarily appears is A2.

Some as a quantifier appears in A1 before plurals. It also is an element of a string containing of. In slots A5-A1 the order of elements is some kind of (bug); in C1-C5 of is put at the other end: (bone) of some description, of some kind, or of some animal. These variations in syntactic pattern are common to the entire subregion.

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19. Here the printed details may not be entirely in accord with what the speaker intended: the ordinarily goes before plurals, a controlling factor in choice even though the /s/ signal is hard to hear in some tapes.

Two contrasting syntactical devices have been combined into one function. If in the base and C1 slots we have queen crown, we have two words of equal value in a list. Speakers can and do join them by and or by with: queen and a crown, queen with a crown. Preferences vary from item to item. In 34, the one containing queen, the ratio is 7 for with to 2 for and; in 851, it is and 14 to with 1 in the contexts rail fence and a more modern fence or rail fence with a barbed wire fence. The lexical elements differ; presumably we still want to keep and in the grammatical class "conjunction" and with in the class "preposition". Syntactically, however, speakers in the subregion have given a coordinating function to with by placing it in the same context that calls for and regularly.

One final detail needs comment. In some instances the gender of a pronoun does not correspond to the presumed sex of an antecedent. It strikes us as a significant variation to have he or his refer to grasshopper. The search pattern does not provide an extensive inventory; nevertheless single instances are so striking as to suggest need of a thorough study of pronoun antecedents in conversational English.[20]

4.86 Complex Responses

When we move from sentences which mainly number and name to those that allow extended comment, we find additional syntactical patterns. For one thing, the varieties of sentence pattern immediately after the base word are more abundantly illustrated; for another, the portion

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20. On a television program in August, 1967, a physician kept calling a female baby he despite everybody's knowledge that it was a she.

immediately before the base may be so far away from the beginning words of the sentence that no number word is included.

Picture 1903, an illustration of bears, will furnish a representative instance of continuity and change. Position C1 contains the with/and link. In the same slot are eight instances of the start of new sentences, three of which begin with one of them. Eight other words in this slot have a word with an -ing suffix. Two are part of a verb sequence which occupies three slots, trying to get. The others are participles: (bear) stealing honey, getting honey, robbing a beehive, standing under, and tearing down. This same suffix occurs in later words: It's catching honey (C2), is disturbing the hive (C3), cub robbing, them getting (C4), is breaking, is going, eating getting, looking (C5). Eating in C5 is most distant from the word it modifies, the base bear. While syntactical relationships can be maintained over four intervening grammatical slots, as in this example, common practice joins an -ing form with a nearer word. Breaking and going are the second elements of verbs which begin with is in C4; getting and looking modify bear in the same slot.

The conjunctive use of with has been noted. Two other prepositions alternate with each other and enter into this same general pattern, in and after. Each can occur in slot C1 as an introductory word for a syntactical arrangement extending to slot C4: (Bear) after bees, after the hornet's nest, in a beehive, and in the honey. After and in appear to be interchangeable except perhaps for the phrase*in bees; an addition of the after in appears to resolve this difficulty. Can we substitute and/with while leaving the syntactical relationships the same? Apparently not so freely. Some kind of context sensitivity resolves these potentially

ambiguous structures within a few slots of the start. Notice the resolution in these instances from the reconstituted text:

base	C1	C2	C3	C4
bear	and	her	cub	which
bear	after	bees	the (new sentence)	
bear	with	the	cub	robbing
bear	in	a	beehive	.....
bear	with	her	cub	and (new sentence)

The uniformities and variables we have noted are to be found in sentences from the entire subregion. That is, their distribution is geographically random.

The final pictures of the interview manual introduce variable nouns in place of a single base word. Picture 8086, for example, shows a robbery at night. No word comparable to bear or grasshopper is repeated in each account of the events. For this reason we set up a search list containing the words robber, man, gun, car, and mask. Perhaps this range of words is grammatically and syntactically as uniform as are the single words in shorter entries. On the other hand, we must be aware that context sensitivity may work in such ways that the comparisons from sentence to sentence are less that exact.

Number words seldom occur in slots A2 and A1; that is the number identifying the picture is ordinarily called at an earlier stage in the sentences. In slot A1 the ratio between a and the remains about the same as it is in the shorter responses. One element appears that has not been observed in shorter entries though presumably it could have been introduced;

it is the word this, used as a kind of substitute for a and not as a mark of identification or a contrast with that. Representative phrases are by this robber here, I guess this man, holding up this man.

And and with continue to occur in parallel contrast, though the tendency toward with in a prepositional sense is strong as in a holdup man with a mask. The other prepositional structures do not commonly occur in the longer examples studied. Rather we find slot C1 occupied by instances of has, who's, and he's, words which introduce main verbs in C2 or C3.

The number of words in -ing is small. In C1 holding, robbing, and waiting modify a base word. An auxiliary is introduces -ing forms of the verb in C2, C3, and C5. Trying (C5) is an active modifier of the noun in the slot immediately before it. On the other hand, quasi-passive constructions with an -ed suffix occur from C2 to the end: with a pistol pointed, got a gun drawed, got his face masked.

Beside certain verb constructions are parallel noun patterns which give the same information. With a mask over his face contrasts in a single word with has a mask over his face; both of these contrast in one or another feature with he's got his face masked or with a mask on. In short, greater freedom in commenting on a picture introduces a greater number of syntactical variants that we find in the available slots. The variants seem entirely regular in their patterns of organization though they may contain a word like drawed which has only local acceptability.

Holdup gives an indication of the syntactic range that can develop within regional vocabulary. The verb as an Americanism for "robbing a traveler at the point of a gun" dates from 1851. This verb usage is

presented in Webster's New International Dictionary (1920) without comment. The noun, a holdup, dates from 1878 according to a citation in A Dictionary of Americanisms (ed. Mathews, 1951). It is called U. S. slang in Webster, colloquial in Dictionary of Americanisms, and informal in The Random House Dictionary of American English (1967). An adjective function is not reported in these dictionaries so far as we can discover, yet obviously the word occupies that functional slot in a holdup man. The texts show that hold up has the same syntactical functions as robber and robbing; oddly enough robbery does not appear as synonym.

Presumably holdup will remain on a social par with robbery which it has replaced in the present context. Functionally, it illustrates the ease with which a given word can be put into new categories as occasions arise. It operates there according to immediate rules governing its form and functions. Hold+up as a noun requires a or some other preceding determiner and permits the plural holdups; as an adjective it occupies a slot before a noun but does not permit any distinctive changes in its form; as a verb it occupies predicate slots and can undergo changes in form such as holding up. These syntactic characteristics are assumed to be common for the whole subregion.

4.87 Syntactical Preferences

We can now turn to the other part of the syntactical program, the printed tabulations of selected parts of speech by county and area. These tabulations are the result of an automated comparison of the words listed in each slot with a dictionary entry bearing a grammar label and based on entries in the Jones and Wepman frequency table of spoken English (1966). We took their

listing of functional words: adverbs, auxiliaries, articles, conjunctions, prepositions, pronouns, quantifiers, and relatives. The computer program then counted the occurrence of words in the text which matched words in the dictionary, entering the count by geographic place, slot position in the sentence, and by grammatical class. (Appendix B and Table 13)

Nouns were omitted since their common occurrence in the base position assured a frequency equal to the total number of sentences tabulated. Adjectives and main verbs were also left out for two reasons: Their abundance would extend the running time of the search program unduly, and their place in syntactical patterns can be viewed as more nearly informative than functional.

Automated grammar search uses the computer to good advantage by causing it to examine and record objectively the details found in an extensive body of data. The printed county by county record has proved the most difficult to use mainly because of the great body of detail which occurs. Our efforts to map these syntactic traits or grammatical variations have not proved successful beyond what we had already discovered through analysis of lexical distributions.

To go from the trees to an overview of the forest provided by the summaries of grammatical occurrence in each major area, we find subregional patterns of preference which surely corresponds to national patterns. Articles (a, an, the) commonly precede nouns. If we begin with slot A5, articles can occupy it and any position before the base; the preferred slots are A2 and A1 with 100 or more instances recorded for each; the next though lesser preference is C2 with 70 instances, indications that a second noun is to appear shortly. Quantifiers (numbers and words like all, half, least) are

most often reported in the first four slots; elsewhere they show a marked decline in preference. Auxiliaries (is, must, can) exceed 100 instances in A2; their rarest use, a single instance, is reported in C1, a slot immediately following the base noun.

Grammatical classes that occur in appreciable numbers though less often than the classes just named are conjunctions, prepositions, and pronouns. Adverbs and relatives (how, that, what, when, etc.) are rare. To begin with the first, conjunctions are found most often in slot C1, rarely in A1 and C2, and fairly often elsewhere. Prepositions also occur quite often in C1, perhaps a confirmation of our earlier remark that some prepositions have been shifted to the conjunctive function of and. The pronoun preference is for slots C1, 2, and 3. As for the rare grammatical classes, the adverb maximum barely goes above 5 instances in C2 and C4; the maximum for relatives is 4 in C1, C2, and C4.

As we have said before, these numbers require interpretation. The high count of quantifiers and of is is a consequence of using numbered pictures as a stimulus. Further, the position of grammar classes with respect to each other in a whole sentence may have an impact that produces different results from those shown here. If the single instance of is following the base noun were shifted with it to slots further to the left (i.e. if the noun and verb moved toward the start of a sentence), the preference for is should increase.[20]

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20. Comparison of our results with that of Stolz (1964) in terms of probabilities of occurrence or of restraints imposed by one grammatical structure on others would be unprofitable. His data are from both spoken and written sources and derive from syntactic sequences in the entire sentence; ours are spoken and derive from an interior sample of a full sentence.

Returning to the current tabulations, we can properly ask what clues would mark the differences in syntactical pattern between Area A and Area B, if any. For these tables a useful clue would be a marked contrast in area totals in nearby slots. Quantifiers provide an example of what is sought. In Area A the total of quantifiers in slot A4 is 78; in Area B, 104, a difference of almost 30. In slot A2 the larger number of instances is in Area A, 70; in Area B the number is 53, a difference of almost 20. The other grammatical units, however, do not provide a parallel set of contrasts in totals. Apparently, then, we are to conclude that the overall syntactical pattern is uniform within the subareas and the subregion. The variables within the quantifiers are reflections of syntax patterns specifically associated with the names of numbers.

5. Conclusions and Implications

A computer search of transcribed regional speech shows that for American English in the Tennessee-Alabama region studied there are uniform aspects of lexicon, phonology, and syntax for the entire subregion. Further it shows that smaller lexical and phonological groupings occur within areas of that region and extend from one area to the next; these are illustrated by intermingled local words which have their origins in Midland or Southern speech communities of the Atlantic states. In words that name numbers the lexical evidence provides a sign of an element of subregional syntax, identified and mapped according to its distribution in Areas A and B.

From available evidence we deduced that changes in lexicon are readily made when a situation arises calling for them; the newest words in this subregional vocabulary are now introduced by national public means such as the

press, television, and radio. Changes in pronunciation are less readily produced; new words, for instance, are adapted to the local system of phonemes. One change that seems to be gaining ground is the reduction of some stressed diphthongs to monophthongs. Another, the presence or absence of postvocalic r, is quite mixed. Changes in syntax are less easily detected. One apparently clear instance is the shift of with from a prepositional function to a conjunctive function equivalent to that of and. The other syntactic variables from the transcriptions appear to be acceptable alternate forms randomly used in the entire subregion.

Implications for linguistic researchers are obvious. The grammar and syntax of spoken English need additional study by and for themselves. Such a study can be aided by the use of computers, but much still needs to be done to adapt the rigidities of computers to the varieties of spoken discourse whether viewed as a continuum or as a body of separable parts which have here been called lexicon, phonology, and syntax.

Implications for educational researchers are equally obvicus. A technique of pictorial interviewing is useful in that it provides a taped and controlled record of what is said. From this record one can derive evidence of natural syntax, pronunciation, and lexicon as distinguished from edited and printed versions of the same language. Application of these findings to specific problems such as the training of school dropouts would involve at least identifying the points at which their patterns depart from the larger evidence and the points at which both coincide.

What we suggest is that attention needs to be given to the interrelated parts of linguistic systems at hand rather than to the variations even though we may first use variation as a means of recognizing the system in which it operates.

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APPENDICES

A TABLES AND ILLUSTRATIONS

Lexical, phonological, and syntactical tables of occurrence and distribution

Lexical and phonological maps

B SELECTED IBM PRINTOUT

Continuous text

Lexical computations

Phonological computations

Syntactical computations

C COMPUTER DETAILS

General flow chart

Phonological code

Card and program conventions

TABLE 1

Sex, Age, and Education of Speakers

Male				Female			
Age	Education Level			Age	Education Level		
	1	2	3		1	2	3
20-60	1	0	6	20-60	0	1	0
60-80	1	8	1	60-80	6	8	1

Education levels: 1 - 1st to 6th grade
2 - 7th to 12th grade
3 - College and beyond

TABLE 2

Analytical Use of Response Data

Item No.	Data for Program LEX	FON	SYN	Count of Text Words	Item No.	Data for Program LEX	FON	SYN	Count of Text Words
13	o	o	o	892	213 #	o	o	o	2,544
15	o	o			225	o	o	o	2,287
20	o	o	o	602	311 #	o	o	o	338
34	o		o	253	312 #	o	o	o	670
37	o		o	1,869	407	o	o		
42	o		o	2,354	433 #	o	o	o	476
60	o		o	309	464 #	o	o	o	423
79	o	o			466	o	o	o	2,309
90	o	o	o	1,310	570	o		o	1,133
99	o	o	o	1,162	587 #	o		o	894
106	o	o			680 #	o	o	o	1,594
108	o		o	801	699 #	o	o	o	2,033
112	o		o	1,598	851	o	o	o	3,366
118	o		o	512	945 #	o	o	o	1,239
135	o	o	o	355	1792	o	o	o	1,603
140	o	o			1903	o	o	o	2,822
167	o	o			4203	o	o	o	1,716
172	o	o			6055	o	o	o	3,118
179	o		o	2,017	8086	o	o	o	4,484
196	o		o	319					

pictures added by Wood

The count of text words is sometimes increased by the decision to limit word length to 12 characters on the punch card. A word like pharmaceutical becomes two text words, pharma and ceutical. This splitting occurs so rarely that it does not make a significant difference in the totals for text words.

In the list above some entries do not have a word count. These entries were chosen for their contribution to the phonology, a contribution which could also be counted in the lexical analysis; a machine count of the words in the whole sentence was not made since it contributed nothing to the phonological record.

TABLE 3

Subregional Words in Most Counties

Picture No.	Lexical Word
13	stove
20	towels
34	queen
42	fly swatter
60	door
99	beard
108	bone
112	ciger
118	cross
135	faucet
196	automobile
213	turtle
225	iris
311	woodpecker
433	grasshopper
464	dragon fly
466	wrench
570	wrestling
587	june bug
680	lightning bug
699	nest
851	barbed wire fence
945	worm(s)
1792	hog
1903	bear
4203	salt and pepper shakers
6055	boy
8086	car

Note: Items 13-945 required individual names; 1792-1903, comment; and 4203-8086, explanation.

TABLE 4

Selected Regional Word Distributions

Item No.	Lexical Word	Occurrence No. A	Occurrence No. B	Occurrence Pct. A	Occurrence Pct. B	County Distributions A: 1	2	3	4	5	6	7	8	9	10	11	12	13	B: 20	21	22	23	24	25	26	27	28	29
Southern Origin																												
464	mosquito hawk		2																							o	o	
945	earthworm	1	3	25	75		o																o	o				o
945	eel worm		1																		o							
945	catalpa worm	1	4	20	80						o											o	o				o	
213	gopher		2																								o	o
407	(wood) bench	3	3	50	50										o	o							o	o			o	
Varied Origins																												
407	(wood) rack	5	2	71	29										o	o	o				o							o
680	fire fly	1	1	50	50		o																	o				o
945	fishing worm	1	1	50	50		o																		o			
851	zig zag fence	1					o																					
Midland, South Midland Origins																												
851	rail fence	10	11	47	52	o		o		o		o	o	o	o						o		o	o	o		o	o
311	peckerwood	8	7	54	46			o	o	o	o	o	o	o		o					o		o		o			o
945	red worm	14	4	88	22	o	o	o	o	o			o	o	o	o	o	o		o	o				o		o	
464	snake feeder	5				o	o	o	o																			
464	snake doctor	6	4	60	40				o		o			o	o	o		o		o			o		o			
135	faucet	12	8	60	40	o	o		o	o	o	o	o			o		o	o					o		o	o		o
135	spigot	3	4	42	57				o							o		o		o				o	o			

TABLE 5

Inanimate Things

Item No.	Lexical Word	Occurrence No. A	Occurrence No. B	Occurrence Pct. A	Occurrence Pct. B	County Distribution A 1	2	3	4	5	6	7	8	9	10	11	12	13	B 20	21	22	23	24	25	26	27	28	29
13	stove	15	10	60	40	o	o	o	o	o	o	o	o	o		o	o	o		o			o	o	o	o		
	cook stove	1	2	33	66										o				o									
	oil stove	1														o												
	electric stove		3																		o		o				o	
	gas stove		2																				o		o			
	range		4																			o	o	o				o
	range stove	2									o				o													
13	eyes	5	3	62	37	o		o	o	o								o		o			o			o		
	eyelets	1							o																			
13	oven	1	3	25	75		o																o			o		
	closet		2																				o					
20	towels	15	10	60	40	o	o		o	o	o		o	o	o	o	o	o	o	o	o	o	o	o		o		o
	hotel towels	5	7	41	58			o	o		o		o										o	o		o		o
37	jugs	5	4	55	44	o					o			o	o	o				o			o		o			
	urns	2	7	22	77								o				o		o		o		o	o	o			
	jars	4	4	50	50								o					o				o	o					o
	vases	3	2	60	40	o	o	o															o					
	pots	2	1	66	33					o						o											o	
42	fly swatter	7	11	38	61	o	o		o	o			o	o		o					o	o	o	o	o	o	o	o
	swatter	6	8	42	57						o	o	o		o		o	o	o				o	o	o		o	
	fly swat	3							o				o			o												
	fly flap		1																	o								
60	door	20	17	54	45	o	o	o	o	o	o	o	o	o	o	o		o	o	o	o	o	o	o	o	o	o	o
	doorway	3	2	60	40	o	o		o											o								
60	door frame	1	3	25	75					o												o				o		o
	jamb	1							o																			
	facing																		o									
	casing		2																									

TABLE 5

Inanimate Things (continued)

Item No.	Lexical Word	Occurrence No. A	Occurrence No. B	Occurrence Pct. A	Occurrence Pct. B	County Distribution A 1	2	3	4	5	6	7	8	9	10	11	12	13	B 20	21	22	23	24	25	26	27	28	29
50	knob	7	4	63	36	o			o	o			o					o		o			o					o
	handle	2	1	66	33		o	o																		o		
90	ice tongs	7	5	84	41				o				o	o	o	o					o		o		o			o
	tongs	1	7	12	87													o					o	o	o			o
	ice hooks	1	4	20	80										o				o			o		o		o		
	ice holder	1					o																					
118	cross	17	16	51	48	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
135	faucet	12	8	60	40	o	o		o	o	o	o	o		o		o	o						o		o	o		o
	spigot	3	4	42	57				o							o		o			o			o	o			
	water faucet	3	4	42	57				o							o	o			o	o					o		
	water spigot	1	2	33	66											o							o					
	hydrant	1	1	50	50						o																	
	water hydrant		1																		o							
	water tap	1												o														
	handle	4	2	66	33	o	o	o										o		o						o		
140	capsules	12	8	60	40		o		o				o		o			o			o	o	o		o	o		o
	pills	5	10	33	66	o		o	o	o								o	o	o	o		o	o	o	o		
	drugs	1					o																					
	pharmaceuti-cal(s)	3					o	o	o																			
140	pestle	4	5	44	55			o	o						o						o		o	o				o
	mortar	3	6	33	66		o								o						o	o	o		o			o
	bowl		5																		o	o	o		o			
179	gun	4	3	57	42	o		o		o					o					o			o					
	pistol	5	2	71	28		o		o				o					o					o			o		
	revolver	2							o		o																	

TABLE 5

Inanimate Things (continued)

Item No.	Lexical Word	Occurrence No. A	Occurrence No. B	Occurrence Pct. A	Occurrence Pct. B	County Distribution A: 1	2	3	4	5	6	7	8	9	10	11	12	13	B: 20	21	22	23	24	25	26	27	28	29
196	automobile	9	12	42	57		o	o	o	o		o		o	o	o			o		o	o	o	o	o		o	o
	car	9	4	69	30	o	o		o		o		o			o	o	o		o			o	o		o		
312	pliers	12	25	32	67	o			o	o		o	o			o	o	o	o	o	o	o	o	o	o	o	o	o	o
	wire pliers	5	1	83	16		o	o	o		o				o											o			
407	(wood) bench	3	3	50	50										o	o						o					o		
	(wood) rack	5	2	71	29								o	o	o				o									o
466	wrench	14	14	50	50	o	o	o	o	o	o		o	o	o	o	o	o		o	o	o	o	o		o	o	o
	monkey wrench	4	5	44	55		o			o			o										o	o	o			o
851	barbed wire fence	14	14	50	50	o	o	o	o	o	o		o	o	o	o	o	o	o	o	o		o	o	o	o	o	o
851	rail fence	10	11	47	52	o			o		o		o	o	o	o					o		o	o	o		o	o
	wooden fence	2	2	50	50		o	o											o	o								
	zig zag fence	1					o																					
	web lock fence	1												o														
	cross fence	2	1	66	33												o	o						o				
4203	salt and pepper shakers	9	6	56	42	o	o	o	o	o					o	o	o		o				o			o	o	o
	salt and pepper shakes												o	o						o		o	o					
	salt cellars	1																o										
6055	ice cream cone	7	12	36	63	o	o	o	o		o	o					o	o	o		o		o	o	o			o

TABLE 6

Animate Things

Item No.	Lexical Word	Occurrence No. A	Occurrence No. B	Occurrence Pct. A	Occurrence Pct. B	County Distribution A 1	2	3	4	5	6	7	8	9	10	11	12	13	B 20	21	22	23	24	25	26	27	28	29
34	queen	16	14	53	46	o	o	o	o	o	o	o	o	o	o	o	o	o	o		o	o	o	o	o	o	o	o
99	beard	11	12	47	52	o		o	o	o		o	o	o	o			o						o	o	o	o	o	
	whiskers	5	4	55	44		o				o				o	o	o		o		o	o						o
	chin whiskers	1											o															
108	bone	18	17	51	48	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
112	tiger	14	13	51	48	o	o	o	o	o	o	o	o	o		o		o		o	o	o	o	o	o	o		o
	lion	2	1	66	33										o												o	
112	whiskers	6	2	75	25	o	o		o	o								o		o						o		
179	policeman	7	3	70	30	o	o	o	o	o				o	o					o	o					o		
	cop	6	7	46	53	o					o	o	o			o		o	o				o	o	o			o
	traffic police-man	2	1	66	33				o														o					
	soldier	3	1	75	25										o	o	o						o					
213	turtle	15	12	55	44	o	o	o	o	o	o	o	o	o	o	o	o	o		o	o	o	o	o	o	o		o
	terrapin	7	1	87	12		o	o	o				o		o			o							o			
	gopher		2																							o	o	
225	iris	13	3	81	18	o	o	o	o	o	o		o	o	o	o	o	o					o		o			
	flower	7	5	58	41	o			o				o		o	o			o		o		o			o		o
	gladiola	1	1	50	50										o									o				
311	woodpecker	10	9	52	47	o	o	o	o	o		o	o			o		o	o	o		o	o	o	o	o		o
	peckerwood	8	7	54	46				o	o	o	o	o	o	o		o				o		o		o			o
	woodchuck	1														o												
433	grasshopper	13	51	46	53	o	o	o				o	o	o	o	o		o	o	o	o	o	o	o	o	o	o	o
	antelope		1																				o					

Item No.	Lexical Word	Occurrence No. A	Occurrence No. B	Occurrence Pct. A	Occurrence Pct. B	County Distribution A 1	2	3	4	5	6	7	8	9	10	11	12	13	County Distribution B 20	21	22	23	24	25	26	27	28	29
464	dragon fly	7	7	50	50		o		o	o	o					o		o		o			o			o	o	
	snake doctor	6	4	60	40				o	o		o		o	o	o		c	o			o		o				
	snake feeder	5				o	o	o	o																				
	snake fly	1						c																					
	devil's fly	1															c											
	mosquito hawk		2																							o	o	
	gallinipper		1																									o
570	wrestling	16	11	59	40	c	c	o	c	c	o	o	o	o	o	o		c		c	c	o	o	c	o	o		o
	wrestlers	2	4	33	66		o		o										c				o	o				
587	june bug	11	12	48	52	c	o	o	o	o		o		o	o	o		c	o	o	o		o		o	o	o	o
699	(wasp's) nest	6	14	30	70		o			o	o		o		o		o		o		o	o	o	o	o	o	o	o
	hornet's nest	1							o																			
	durt dauber's nest	1												c														
	hive						o																					
699	wasps (above)																											
	waspers	1					o																					
680	lightning bug	18	17	51	48	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
	fire fly	1					o																					
945	worm	17	14	54	45			o	o	o	o		o		o	o	o	o	o		o		o	o	o	o	o	o
	red worm	14	4	88	22	o	o	o	o	o			o	o	o	o	o	o	o	o					o		o	
	catalpa worm	1	4	20	80						o											c	c				o	
	bait	2	4	33	66	o												o	c				o		o			
	earthworm	1	3	25	75		o																o	o				o
	fishing worm	1	1	50	50		o																			o		
	eel worm		1																	o								
	grub worm	1						o																				
	angle worm	1	1	50	50				o															o				

TABLE 6

Animate Things (continued)

Item No.	Lexical Word	Occurrence No. A	Occurrence No. B	Occurrence Pct. A	Occurrence Pct. B	County Distribution A: 1	2	3	4	5	6	7	8	9	10	11	12	13	B: 20	21	22	23	24	25	26	27	28	29
	blood worm	1							o																			
	wiggler		2																	o							o	
1792	hog	13	11	54	45	o	o	o	o	o	o	o	o		o		o	o		o	o	o	o		o	o	o	
	pig	3	5	37	62				o					o		o								o	o		o		o
	shoat	1														o												
	sow	1					o																					
1792	slop	3				o	o			o																		
	apples	6	10	37	62				o		o			o	o		o	o		o	o	o	o	o				o
	corn		1																o									
1903	bear	19	2	48	51	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
	cub	10	4	71	28	o	o	o	o		o		o	o		o		o	o	o								
1903	hornet's nest	6	9	40	60	o						o	o		o	o	o		o		o	o	o	o	o		o	
	bee hive	3	4	42	57		o	o								o				o				o	o			
	wasp's nest	1									o																	
	bumble bee nest	1											o															
6055	boy	14	13	51	48	o	o	o	o	o	o		o	o	o		o		o		o	o	o	o	o	o		o
	bully	2	2	50	50															o					o			
	ruffian	2						o	o																			
	brother	1	3	25	25								o							o				o	o			
8086	robber	6	2	75	25	o	o			o						o			o		o							
	bandit	1	3	25	25									o							o	o	o					
	hold-up man		2																				o	o				

TABLE 7

Numerals: Two Names or More

Item No.	Lexical Word	A													B									
	County:	1	2	3	4	5	6	7	8	9	10	11	12	13	20	21	22	23	24	25	26	27	28	29
112	one twelve								o						o				o		o	o		
118	one eighteen			o		o	o					o			o	o			o	o	o	o		
135	one thirty five			o	o	o	o					o			o	o			o	o	o	o		
140	one forty				o															o	o	o		o
179	one seventy nine			o		o	o			o		o			o	o			o	o	o	o		
196	one ninety six			o	o	o	o			o		o							o	o	o	o		o
213	two thirteen			o	o	o	o		o	o		o		o	o	o		o	o	o	o	o	o	o
225	two twenty five			o	o	o	o		o	o		o	o	o	o	o		o	o	o	o	o	o	o
311	three eleven			o	o	o	o		o	o		o	o	o	o	o		o	o	o	o	o	o	o
312	three twelve			o	o	o	o		o	o		o			o	o		o	o	o	o	o	o	o
433	four thirty three			o	o	o	o			o		o	o		o	o		o	o	o	o	o	o	o
464	four sixty four			o	o	o	o			o		o		o	o	o		o	o	o	o	o	o	o
466	four sixty six			o	o	o	o			o		o		o	o	o		o	o	o	o	o	o	o
570	five seventy			o	o	o	o		o	o		o	o	o	o	o			o	o	o	o	o	o
587	five eighty seven			o	o	o	o		o	o		o		o	o	o		o	o	o	o	o	o	o
680	six eighty			o	o	o	o		o	o				o	o	o		o	o	o	o	o	o	o
699	six ninety nine			o	o	o	o		o			o		o	o	o		o	o	o	o	o	o	o
851	eight fifty one			o	o	o	o					o	o	o	o	o		o	o	o	o	o	o	o
945	nine forty five			o	o	o	o	o	o	o		o		o	o	o		o	o	o	o	o		o
1792	seventeen ninety two			o	o	o	o	o	o			o	o	o	o	o		o	o	o	o	o	o	o
6055	sixty fifty five			o	o	o	o		o	o	o			o		o		o	o		o	o	o	o
8086	eighty eighty six			o	o	o	o				o					o		o	o		o	o	o	o
112	one one two																			o				
118	one one eight																			o				
196	one nine six																			o				
312	three one two																							o
466	four six six								o															
699	six nine nine																					o		
851	eight five one								o		o													o
945	nine four five																						o	
1792	seventeen nine two										o													o
1903	nineteen three																							

TABLE 8

Numerals: Hundred and /n/

Item No.	Lexical Word	A													B									
	County:	1	2	3	4	5	6	7	8	9	10	11	12	13	20	21	22	23	24	25	26	27	28	29
108	h and eight				o	o	o				o	o	o	o			o	o	o		o		o	o
112	h and twelve				o	o	o				o	o	o	o			o	o	o	o	o		o	o
118	h and eighteen				o		o				o	o	o	o			o	o	o	o			o	o
135	h and thirty five				o		o		o		o	o		o			o	o	o				o	o
140	h and forty				o	o					o	o	o	o	o		o	o	o	o			o	
179	h and seventy nine				o		o				o	o	o	o				o	o	o			o	o
196	h and ninety six				o		o				o		o	o	o		o	o	o				o	o
108	one h and eight			o																o				
112	one h and twelve	o		o												o								
118	one h and eighteen			o																				
140	one h and forty	o		o												o			o					
179	one h and seventy nine			o																				
225	two h and twenty five						o				o						o	o						
311	three h and eleven						o				o							o						
312	three h and twelve				o		o				o						o	o						
433	four h and thirty three						o					o					o	o						
464	four h and sixty four						o					o					o	o						
466	four h and sixty six		o				o				o	o					o	o						
570	five h and seventy						o				o						o	o						
587	five h and eighty seven										o	o					o	o						
680	six h and eighty						o					o					o	o						
699	six h and ninety nine						o					o					o	o						
851	eight h and fifty one						o										o	o						
945	nine h and forty five										o	o					o	o						
1792	seventeen h and ninety two										o						o							
1903	nineteen h and three																o							
4203	forty two h and three																o							
6055	six thousand one h and fifty five			o																				

TABLE 9

Numerals: OH

Item No.	Lexical Word	A													B									
	County:	1	2	3	4	5	6	7	8	9	10	11	12	13	20	21	22	23	24	25	26	27	28	29
1903	nineteen oh three	o		o	o	o	o		o			o	o	o	o	o		o	o	o	o	o	o	o
4203	forty two oh three	o		o	o	o	o		o	o	o	o	o	o	o	o		o	o	o	o	o	o	o
6055	six oh five five				o							o	o		o		o		o	o				
8086	eight oh eight six				o		o			o		o	o	o	o		o		o	o				o
108	one oh eight				o							o			o	o			o	o	o	o		
140	one four oh				o							o			o	o			o	o	o	o		

TABLE 10

Regionally Similar Vowels and Diphthongs

Item No.	Cited Word Coded Phon.	Syll.	Occurrence No. A	Occurrence No. B	Occurrence Pct. A	Occurrence Pct. B	County Distribution 1	2	3	4	5	6	7	8	9	10	11	12	13	20	21	22	23	24	25	26	27	28	29	Items Not Computed A	Items Not Computed B
6055	cream KRIM	I	7	2	77	22	o	o	o	o	o		o	o		o				o						o	o	o		+1	+2
312	three QRI	I	12	11	48	44	o	o	o	o	o	o		o	o	o	o		o	o	o	o		o	o	o	o	o	o		+2
8086	moon MU*N	U*	7	8	49	55			o				o	o	o		o	o	o					o	o	o			o	+1	+1
1792	two TU*	U*	12	15	48	60	o	o	o	o	o	o		o		o	o	o	o	o	o	o	o	o	o	o	o	o	o		
4203	chicken C*I*K8N	I*	7	4	63	36	o		o	o		o	o				o		o			o		o			o		o		
1792	pig PI*G	I*	3	5	39	65				o					o		o							o	o		o		o		
8086	pistol PI*ST8L	I*	3	4	42	56		o	o								o					o		o		o			o		
464	sixty SI*KSDI*	I*	5	16	32	67	o		o	o	o								o	o	o	o	o	o	o	o		o	o	+2	+3

TABLE 10

Regionally Similar Vowels and Diphthongs (continued)

Item No.	Cited Word Coded Phon.	Syll.	Occurrence No. A	No. B	Pct. A	Pct. B	County Distribution 1	2	3	4	5	6	7	8	9	10	11	12	13	20	21	22	23	24	25	26	27	28	29	Items Not Computed A	B
135	spigot SPI*G8T																														
		I*	2	4	33	66				o							o					o			o	o		o			
6055	boy BO*I*																														
		O*I*	10	6	63	36	o	o	o	o	o	o	o	o	o			o						o		o	o		o		
		OI*	1	1	50	50										o									o						

TABLE 11

Regionally Variable Vowels and Diphthongs

Item No.	Cited Word Coded Phon.	Syll.	Occurrence No. A	Occurrence No. B	Occurrence Pct. A	Occurrence Pct. B	County Distribution 1	2	3	4	5	6	7	8	9	10	11	12	13	20	21	22	23	24	25	26	27	28	29	Items Not Computed A	Items Not Computed B
407	bench																														
	BE*NC*																														
		I*	1	1	50	50											o							o							
		A*	1	2	33	66										o							o					o		+1	
851	fence																														
	FE*NS																														
		E*	4	1	80	20				o					o									o	o	o		o		+1	+6
		I*	5	2	70	30		o			o						o	o	o						o		o				
		I*8	2	1	66	33		o	o												o										
699	nest																														
	NE*ST																														
		E*	1	4	20	80		o		o										o		o		o		o		o		+1	+2
		A*	1									o												o	o						+2
		I*		2																							o		o	+1	
		E*I*	2	3	40	60			o		o					o															
311	red-head(ed)																														
	RE*D HE*DI*D		13	10	51	49		o	o	o	o				o	o		o	o			o		o				o	o	+4	
	RI*D																		o												
	RA*D															o															
945	red																														
		E*I*	3					o							o	o					o										+1	
312	twelve																														
	TWE*8LV																														
		E*	11	4	77	28	o		o	o	o	o		o	o	o	o		o			o	o		o	o	o		o		+2	
		I*	1	4	20	80		o												o				o			o		o			
213	terrapin																														
	TE*R8P8N																													+1	
		E*	4					o	o	o				o		o										o					
		A*	2	1	75	25								o		o			o												

TABLE 11

Regionally Variable Vowels and Diphthongs (continued)

Item No.	Cited Word Coded Phon. Syll.	Occurrence No. A	B	Pct. A	B	County Distribution 1	2	3	4	5	6	7	8	9	10	11	12	13	20	21	22	23	24	25	26	27	28	29	Items Not Computed A	B
466	wrench																													
	RE*NC*																													
	E*	4	7	36	63										o	o	o	o			o		o	o			o		+2	+5
	I*	5	6	45	54			o	o			o	o						o				o	o	o	o			+2	+4
	A*	1	3	25	75											o							o							+1
	E*I*	3	2	60	40	o	o			o											o								+2	+1
	A*I*	2	1	66	33						o				o					o										
8086	bandit																													
	BA*NDI*T	1	2	33	66									o							o		o							
	A*																													
464	dragon																													
	DRA*G8N																													
	A*	7	6	56	48		o		o	o	o					o		o							o	o				
	A*	7	6	56	48		o		o	o	o					o		o							o	o				
8086	handkerchief																													
	HA*N*K8C*8F																													
	A*	1							o	o		o									o			o	o				+2	+3
8086	man																													
	MA*N																													
	A*	5	7	40	60							o		o		o		o					o		o	o	o	o		+1
	A*I*		1																				o	o						
8086	mask																													
	MA*SK																													
	A*	5	7	40	60		o	o			o					o	o			o	o		o			o	o	o	+1	+1
	A*8								o														o							
	E8	1	1	50	50				o														o							
407	rack																													
	RA*K																													
	A*	3	2	60	40							o	o	o					o								o			+2

TABLE 11

Regionally Variable Vowels and Diphthongs (continued)

Item No.	Cited Word Coded Phon.	Syll.	Occurrence No. A	B	Pct. A	B	County Distribution 1	2	3	4	5	6	7	8	9	10	11	12	13	20	21	22	23	24	25	26	27	28	29	Items Not Computed A	B
8086	eight eighty																														
	ET EDI*																														
		E	17	22	45	55	o		o	o	o	o		o	o	o	o		o	o	o	o		o	o	o	o	o	o		
851	rail																														
	RE8L																														
		E	7	2	77	22				o		o	o		o	o						o	o	o							+1
		EI*								o														o	o	o		o	o	+1	+6
6055	skates																														
	SKETS																														
		E	3	7	30	70				o			o	o				o			o	o		o	o	o	o	o	o	+1	+2
		EI	6	3	66	33			o		o	o			o	o	o		o	o				o					o	+1	
464	snake																														
	SNEK																														
		E	7	8	47	53	o		o	o	o		o		o	o	o		o	o	o		o		o						
79	foot																														
	FUT																														
		U	14	12	56	48	o	o		o	o	o	o	o	o	o	o	o	o	o	o	o		o	o	o	o	o	o		
		U*	3	1	25	75			o					o			o									o				
311	wood																														
	WUD																														
		U	15	12	59	48		o	o	o	o	o	o	o		o	o	o	o	o	o	o	o	o	o	o	o		o	+2	+1
		UI*	3				o							o	o															+1	
6055	cone																														
	KON																														
		O	3	9	24	72	o	o					o							o	o	o		o	o			o	o		
		OU*	4	2	68	34			o	o		o							o						o	o					

Regionally Variable Vowels and Diphthongs (continued)

Item No.	Cited Word Coded Phon.	Syll.	Occurrence No. A	Occurrence No. B	Occurrence Pct. A	Occurrence Pct. B	County Distribution 1	2	3	4	5	6	7	8	9	10	11	12	13	20	21	22	23	24	25	26	27	28	29	Items Not Computed A	Items Not Computed B
1792	hog																														
	HO*G																														
		O*	8	7	56	49	o	o	o	o	o		o			o				o		o	o	o		o		o			
		A		3																	o					o	o				
		AO*	4	1	80	20						o		o					o										o		
135	faucet																														
	FO*SI*T																														
		O*	6	5	54	45		o	o				o			o	o	o						o					o		
		A	6	5	54	45				o	o	o		o		o				o	o				o	o					
945	catalpa																														
	K8O*TO*P8																														
		O*	1	4	20	80						o											o	o	o			o			
464	hawk																														
	HO*K																														
		O*		2																								o	o		
8086	automobile																														
	O*D8MOBI81																														
		O*	1	3	25	75	o																o	o							
		O*8		1																									o		
		A		1																							o				
464	fly																														
	FLAI*																														
		AI*	1	3	25	75										o							o			o					
		A	4	1	80	20		o			o								o						o						
		A*	7	6	56	48		o		o	o	o				o			o			o			o	o					
6055	ice																														
	AI*S																														
		AI*	4	7	36	63				o				o	o	o		o		o	o		o	o	o			o		+1	
		AI											o	o					o						o					+2	+2
		A	7	2	77	22	o	o	o	o	o			o		o											o	o			
		A*	1	2	33	66						o												o	o						

TABLE 11

Regionally Variable Vowels and Diphthongs (continued)

Item No.	Cited Word Coded Phon. Syll.	Occurrence No. A	B	Pct. A	B	County Distribution 1	2	3	4	5	6	7	8	9	10	11	12	13	20	21	22	23	24	25	26	27	28	29	Items Not Computed A	B
680	lightning LAI*TNI*N																													
	AI*		9																		o		o		o	o	o			
	AI	3	2	60	40			o	o	o									o					o						
	A*	4	1	80	20	o					o			o				o		o										
225	flower FLAU8R																													
	AU	3	8	37	63			o	o							o				o	o	o	o			o				
	A	3	1	75	25	o			o				o						o											
	A*	1									o																			
	O*	1													o															
20	towels TAU*8LZ																													
	AU*8	2	11	16	88								o					o			o	o	o	o	o	o		o		
	AU*						o		o	o							o	o												+5	
	A*8	3	1	75	25						o			o	o				o											

TABLE 11

Regionally Variable Vowels and Diphthongs (continued)

Item No.	Cited Word Coded Phon.	Syll.	Occurrence No. A	B	Pct. A	B	County Distribution 1	2	3	4	5	6	7	8	9	10	11	12	13	20	21	22	23	24	25	26	27	28	29	Items Not Computed A	B
172	nose NOU*Z																														
		OU*	12	11	48	44	o	o	o	o		o	o	o	o	o			o		o	o	o	o	o	o	o	o			
13	stove STOU*V																														
		OU*	16	11	64	44	o	o	o	o	o	o	o	o	o	o	o	o		o	o	o	o	o	o	o	o				
680	bug BXG																														
		X	11	5	66	33	o	o		o	o		o			o	o		o		o	o			o		o		o	+4	+1
		U	6	8	42	56			o			o		o	o			o		o			o	o	o	o				+3	
		UI*		2																				o				o			
1903	cub KXB																														
		X	6	1	84	14	o	o	o	o				o			o			o										
		X8	3	1	75	25				o		o			o						o									
8086	gun GXN																														
		X	6	7	48	56	o		o			o			o	o	o				o			o	o		c		o		
		U		1																o											
699	wasp WASP																														
		A	3	5	39	65			o	o	o								o					o	o		o	o		+1	+1
		O*	4	7	36	63	o		o		o					o		o		o	o		o	o		o			o	+2	+1
4203	salt SO*LT																														
		O*	11	6	66	33	o	o	o	o	o		o	o		o	o	o		o	o		o	o				o	o	+2	
		O*U	2	4	33	66								o			o							o	o				o		
407	saw SO*																														
		O*	5	11	30	66	o			o					o			o			o	o	o	o	o	o		o	o	+3	+2

TABLE 12

Regional Variables with /r/

Item No.	Cited Word Coded Phon.	Syll.	Occurrence No. A	B	Pct. A	B	County Distribution 1	2	3	4	5	6	7	8	9	10	11	12	13	20	21	22	23	24	25	26	27	28	29	Items Not Computed A	B
106	ear																														
	I*R																														
		I*R	12	4	72	24	o	o	o			o		o	o	o	o	o									o	o	o		
		IR	3	2	60	40				o	o										o		o								
		I*8	2	7	22	77							o						o			o	o	o	o	o					
		I8		2																				o	o						
99	beard																														
	BI*RD																														
		I*R	4	4	50	50			o				o			o			o					o			o	o			
		IR	7	1	91	13	o			o	o			o	o									o	o	o					
		I*8																						o	o						
		I8																													
15	mirror																														
	MI*R8R																														
		I*	12	15	45	55	o	o	o	o	o	o	o	o			o	o	o	o	o	o	o	o		o	o	o	o	+1	
		E*	2													o	o														
464	feeder																														
	FID8R																														
		I	4				o		o	o																					
1903	bear																														
	BE*8R																														
		E*8R	4	4	50	50	o			o				o		o						o		o					o		
		E8R	4						o		o			o	o																
		A*8R	4	1	80	20				o		o					o						o								
		E*18	1	5	17	85							o											o	o	o					
		A*18	1	2	33	66													o						o	o					
311	-pecker-																														
	PE*K8R																														
		E*	15	13	54	46	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o		o		

TABLE 12

Regional Variables with /r/ (continued)

Item No.	Cited Word Coded		Occurrence No.		Pct.		County Distribution																							Items Not Computed	
	Phon.	Syll.	A	B	A	B	1	2	3	4	5	6	7	8	9	10	11	12	13	20	21	22	23	24	25	26	27	28	29	A	B
4203	pepper																														
	PE*P8R																														
		E*8R	11	5	66	33	o	o	o	o	o			o		o	o	o			o		o	o			o		o		
		E*8	1	5	17	85										o				o				o	o						
4203	shaker																														
	S*EK8R																														
		E-R	8	6	56	42	o	o	o	o	o					o	o	o		o				o			o	o	o	+1	
	S*EK																														
		E	4	4	50	50				o			o	o							o		o	o							
945	forty																														
	FO*RDI*																														
		O*R	8	4	64	32	o		o	o	o			o	o	o		o		o				o			o		o	+1	
		O*8	3	7	30	70						o					o		o			o	o	o	o			o			
407	horse																														
	HO*RS																														
		O*	3	4	40	60	o	o	o	o	o	o		o		o			o					o	o	o			o	+9	+4
		O	1	2	33	66				o					o					o	o									+1	
464	four																														
	FO8R																														
		O8	1	9	10	90													o	o		o		o	o	o			o		
		O8R	5	3	65	39	o		o			o			o		o				o							o	o		
		OR	2	2	50	50									o		o										o		o		
		O8	1	4	20	80													o	o				o	o			o	o		+2
		O		3				o				o						o				o	o	o	o				o	+3	+3
		OR	3				o			o																					
		O*R									o																			+2	
4203	turkey																														
	TXRKI*																														
		X*R	12	9	57	43		o	o	o			o	o	o	o	o	o		o	o	o	o	o	o			o	o		
		UI*		3																				o		o					

TABLE 12

Regional Variables with /r/ (continued)

Item No.	Cited Word Coded Phon. Syll.		Occurrence No. A	Occurrence No. B	Occurrence Pct. A	Occurrence Pct. B	County Distribution 1	2	3	4	5	6	7	8	9	10	11	12	13	20	21	22	23	24	25	26	27	28	29	Items Not Computed A	Items Not Computed B
213	turtle TXRT8L																														
		X	11	6	65	35	o	o	o	o	o	o	o	o	o		o	o	o		o		o		o		o		o	+1	
		UI*		6																		o		o		o						+1
945	worm WXRM																														
		X	5	2	70	30		o				o	o	o		o	o	o		o	o		o	o	o		o	o	o	+3	+5
		UI*																						o		o						+3
6055	roller ROL8R																														
		O-R	3					o		o				o																+1	+1
		08		1													o				o				o						
8086	robber RAB8R																														
		A	5	1	85	15	o	o		o							o						o								
		O*		1																			o								
135	water WO*D8R																														
		O*	4	12	27	73			o	o			o				o	o	o	o	o	o	o	o	o			o			
		O*+R						o																					o	o	+1	+2
		A	9				o			o	o		o		o		o														
464	doctor DAKT8R																														
		A-R	5	2	70	30					o		o		o	o	o						o		o						
		A8	2	2	50	50				o								o	o												
851	barb(ed) BARB																														
		AR	2	1	66	33									o		o												o		
		A	5	7	40	60	o				o	o	o	o						o				o	o	o	o			+1	+2
		O*8	2							o																				+1	+3

Regional Variables with /r/ (continued)

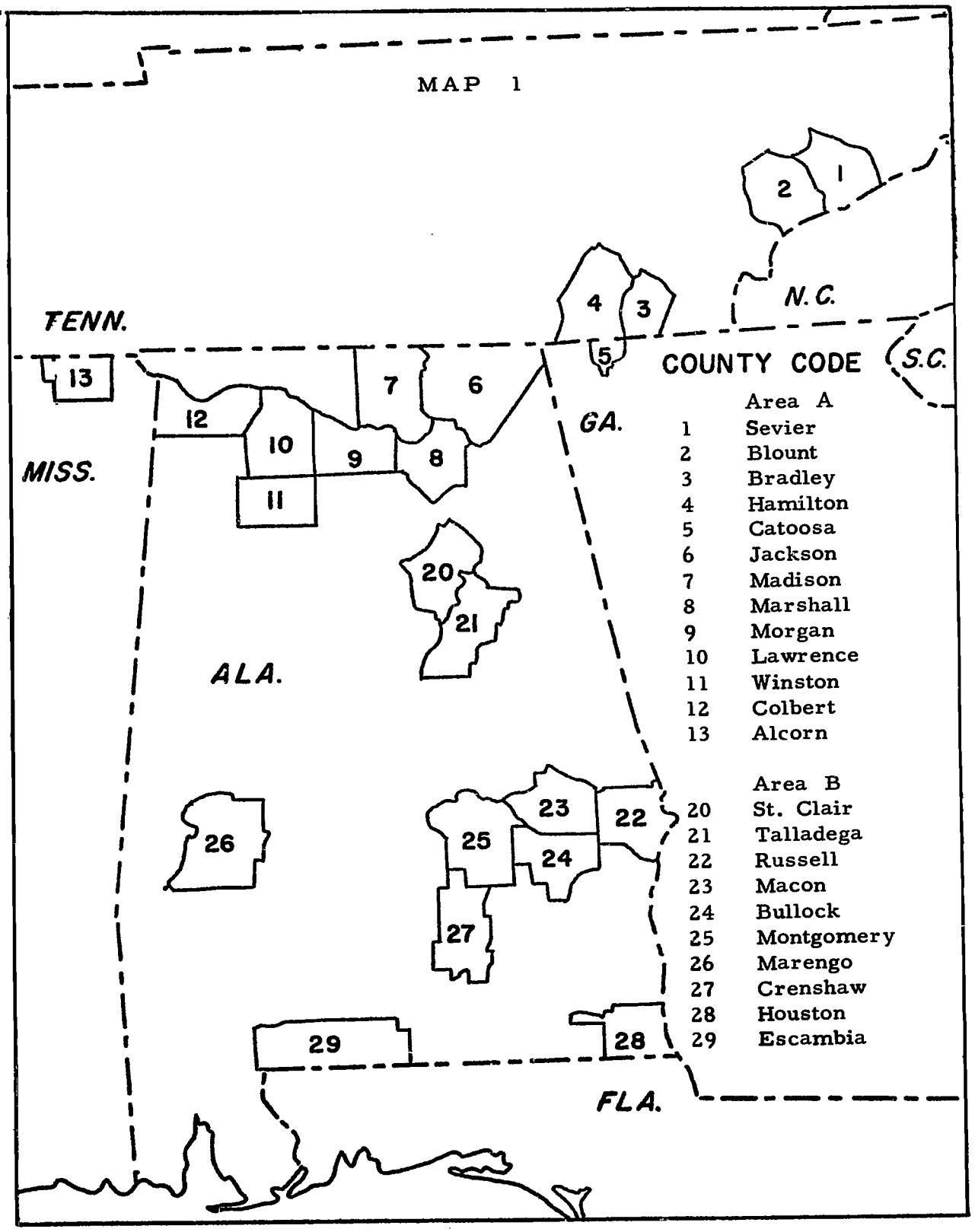
Item No.	Cited Word Coded Phon.	Syll.	Occurrence No. A	B	Pct. A	B	County Distribution 1	2	3	4	5	6	7	8	9	10	11	12	13	20	21	22	23	24	25	26	27	28	29	Items Not Computed A	B
167	arm																														
	ARM																														
		AR	3								o			o	o																
		O*8	3	1	75	25								o			o										o				
		A8	5							o		o				o	o														
		AM		3																o			o		o						
		O*M	1	7	13	97													o			o		o		o	o				
8086	stars																														
	STARZ																														
		A+R		1											o														o		
		A8+R	1												o																
		A8		1																				o							
		A														o														+1	
		O*		2																						o	o				
		O*8+R	2						o									o													
		O*8																						o						+1	
8086	car																														
	KA8R																														
		A+R	4				o									o	o														
		A	2												o	o															
		O*+R	5	1	85	15		o	o	o		o						o										o			
		O*	1	4	20	80							o										o		o	o	o				
		O*8																	o		o				o					+1	+2
312	pliers																														
	PLAI*RZ																														
		A8R	12	7	60	35		o	o	o	o	o	o	o		o	o	o		o	o	o		o	o		o	o			
		A*8R	2	3			o								o								o					o		+2	+3
		A8	1	4	20	80													o						o	o	o				
312	wire																														
	WAI*R																														
		AI*		1																				o							
		A8	6	1	84	14	o	o	o	o		o				o											o			+1	

Table 13

Area and Grand Totals of Parts of Speech by Slot

Part of Speech	In Area	Slot Labels A5	A4	A3	A2	A1	Base	C1	C2	C3	C4	C5
Quantifier	A	69	78	106	70	30		4	6	3	2	3
	B	80	104	110	53	34		5	7	1	1	4
	Total	149	182	216	123	64		9	13	4	3	7
Determiner (Article)	A	6	14	12	47	110		5	28	9	11	13
	B	12	19	16	65	107		10	42	8	14	13
	Total	18	33	28	112	217		15	70	17	25	26
Auxiliary	A	10	8	30	66	9		0	3	3	2	4
	B	11	9	38	71	2		1	8	4	14	5
	Total	21	17	68	137	11		1	11	7	16	9
Conjunction	A	13	16	11	7	1		32	1	6	9	6
	B	12	20	10	12	0		29	1	9	6	11
	Total	25	36	21	19	1		61	2	15	15	17
Preposition	A	0	3	1	10	3		18	9	9	13	5
	B	4	0	5	11	10		33	15	12	13	15
	Total	4	3	6	21	13		51	24	21	26	20
Pronoun	A	8	3	6	4	1		14	12	10	4	5
	B	4	3	6	0	1		11	13	20	10	6
	Total	12	6	12	4	2		25	25	30	14	11
Relative	A	0	1	1	0	0		0	1	0	2	1
	B	0	0	0	0	0		4	4	0	2	1
	Total	0	1	1	0	0		4	4	0	4	2
Adverb	A	1	2	1	0	0		0	3	0	0	1
	B	2	0	2	1	0		3	4	4	6	3
	Total	3	2	3	1	0		3	7	4	6	4

MAP 1



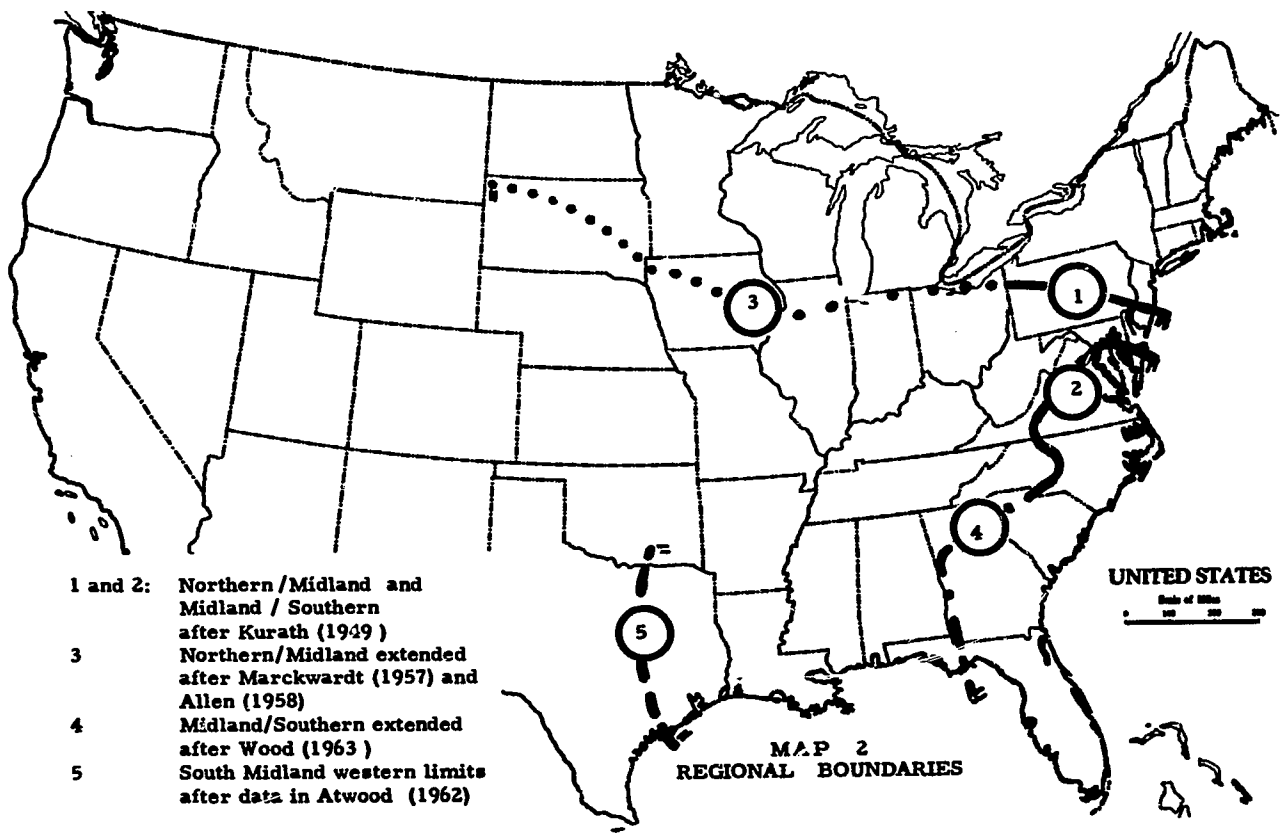
COUNTY CODE

Area A

1	Sevier
2	Blount
3	Bradley
4	Hamilton
5	Catoosa
6	Jackson
7	Madison
8	Marshall
9	Morgan
10	Lawrence
11	Winston
12	Colbert
13	Alcorn

Area B

20	St. Clair
21	Talladega
22	Russell
23	Macon
24	Bullock
25	Montgomery
26	Marengo
27	Crenshaw
28	Houston
29	Escambia



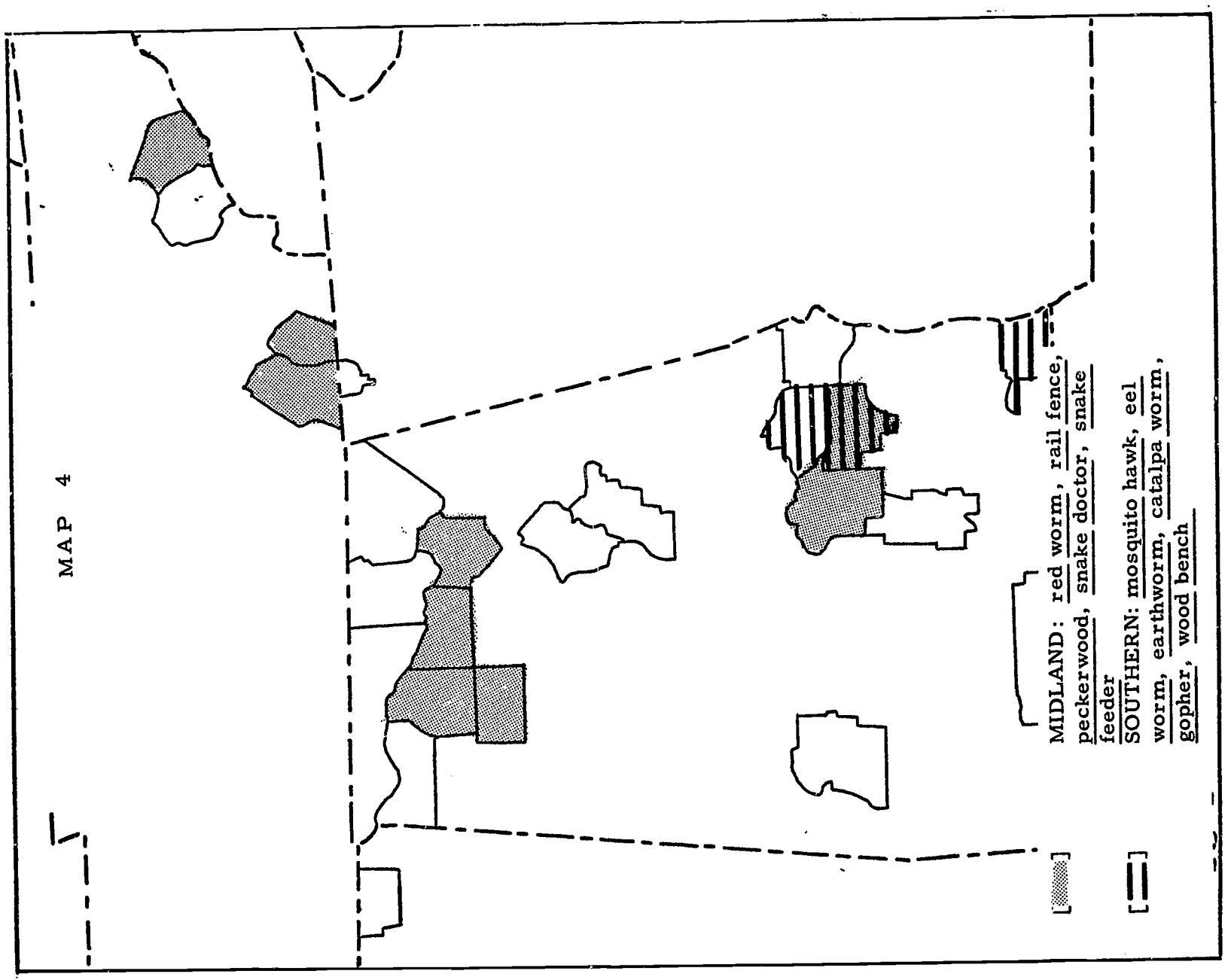
1 and 2: Northern/Midland and Midland / Southern after Kurath (1949)

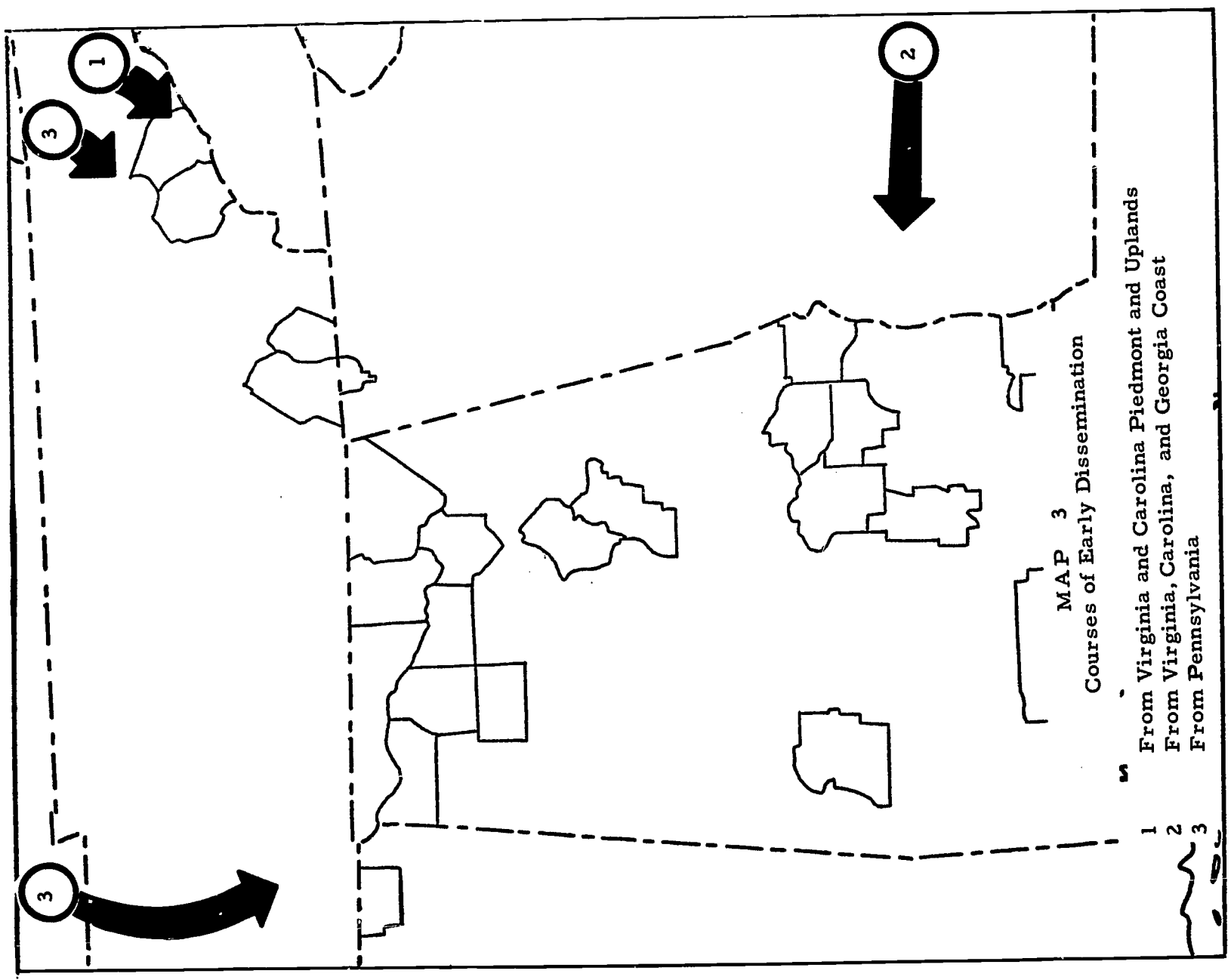
3 Northern/Midland extended after Marckwardt (1957) and Allen (1958)

4 Midland/Southern extended after Wood (1963)

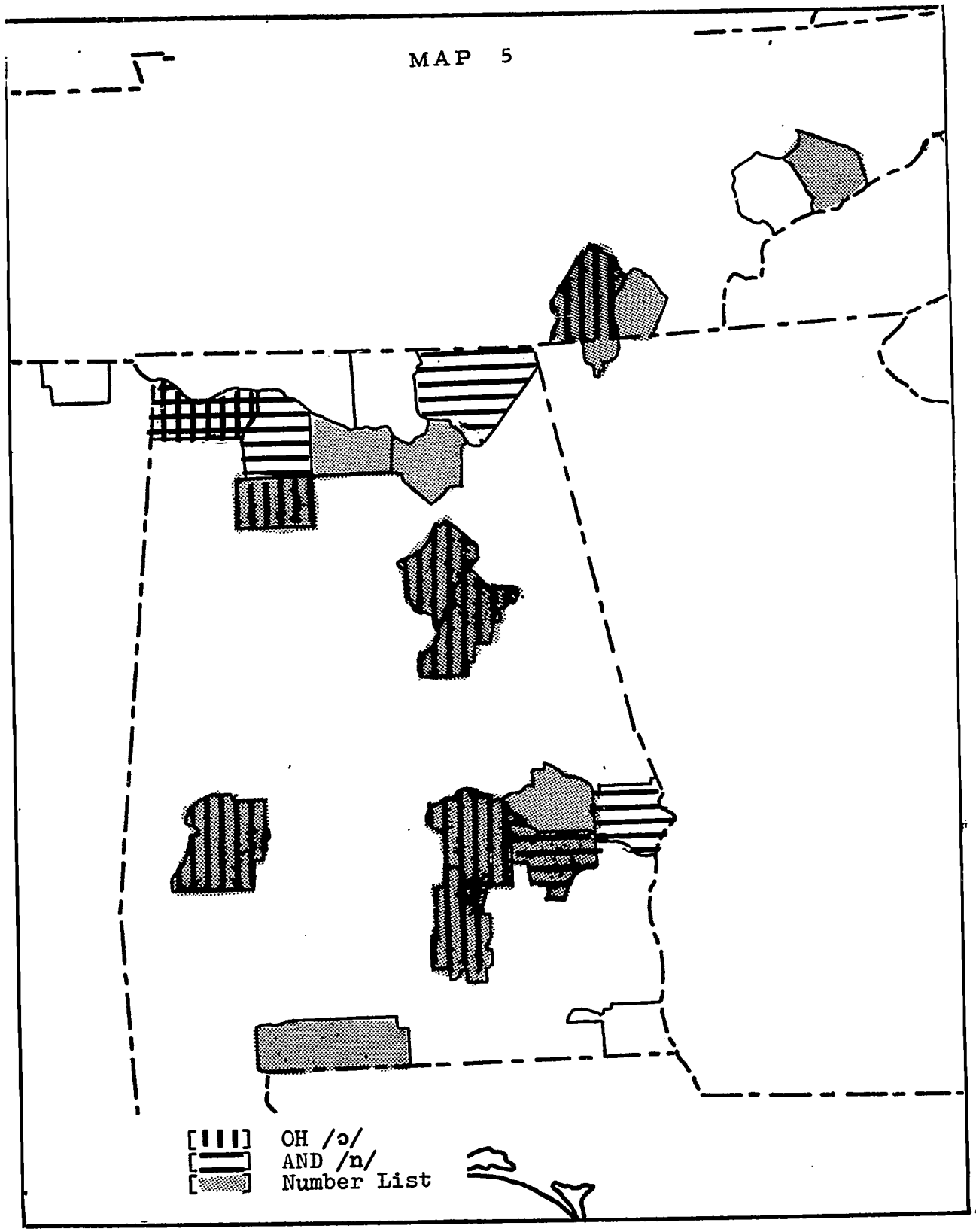
5 South Midland western limits after data in Atwood (1962)

MAP 2
REGIONAL BOUNDARIES

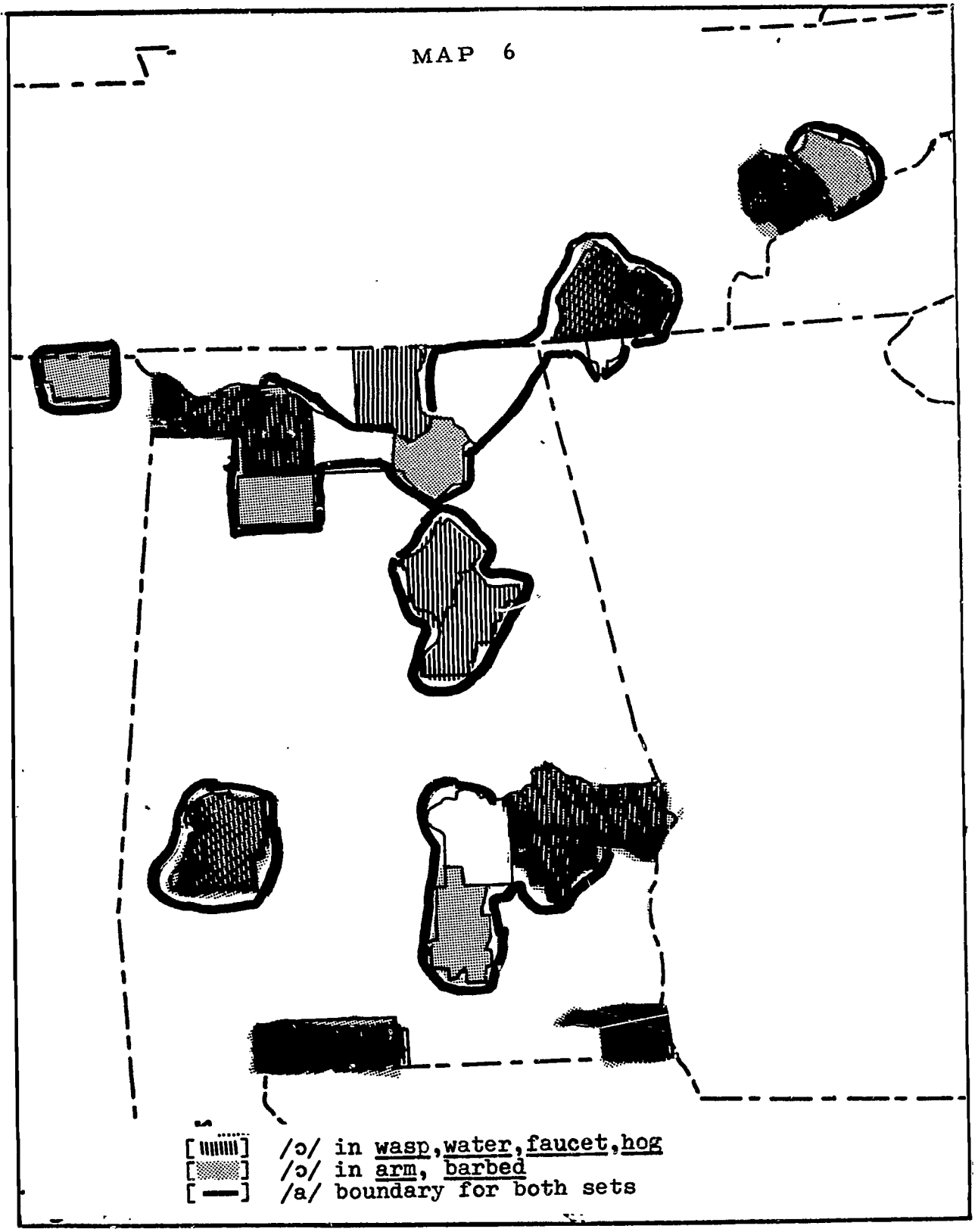

MAP 4
MIDLAND: red worm, rail fence, peckerwood, snake doctor, snake feeder
SOUTHERN: mosquito hawk, eel worm, earthworm, catalpa worm, gopher, wood bench


1
2
3
MAP 3
Courses of Early Dissemination
1 From Virginia and Carolina Piedmont and Uplands
2 From Virginia, Carolina, and Georgia Coast
3 From Pennsylvania

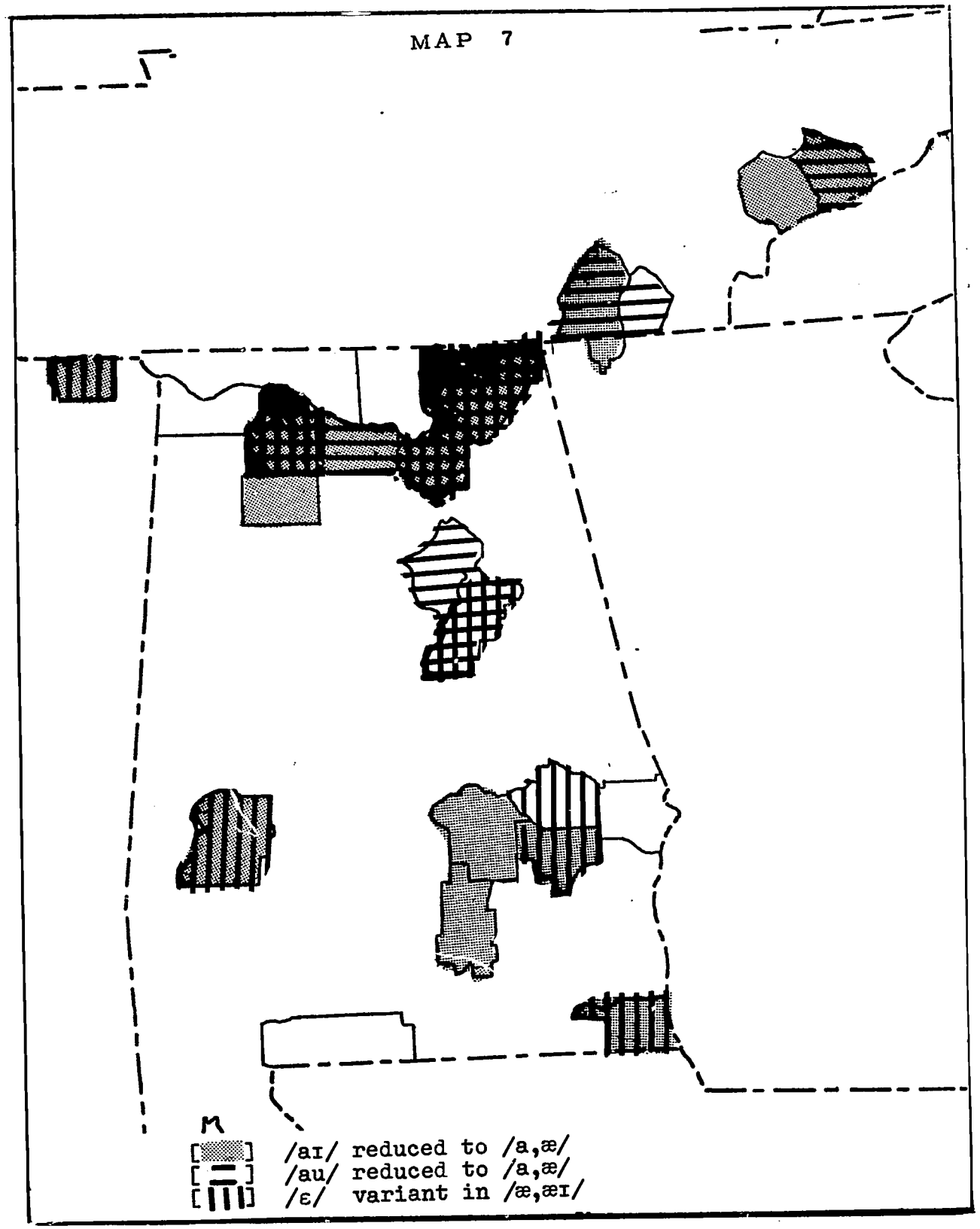
MAP 5


[▮▮▮▮] OH /ɔ/
[▬▬] AND /n/
[▒▒▒] Number List

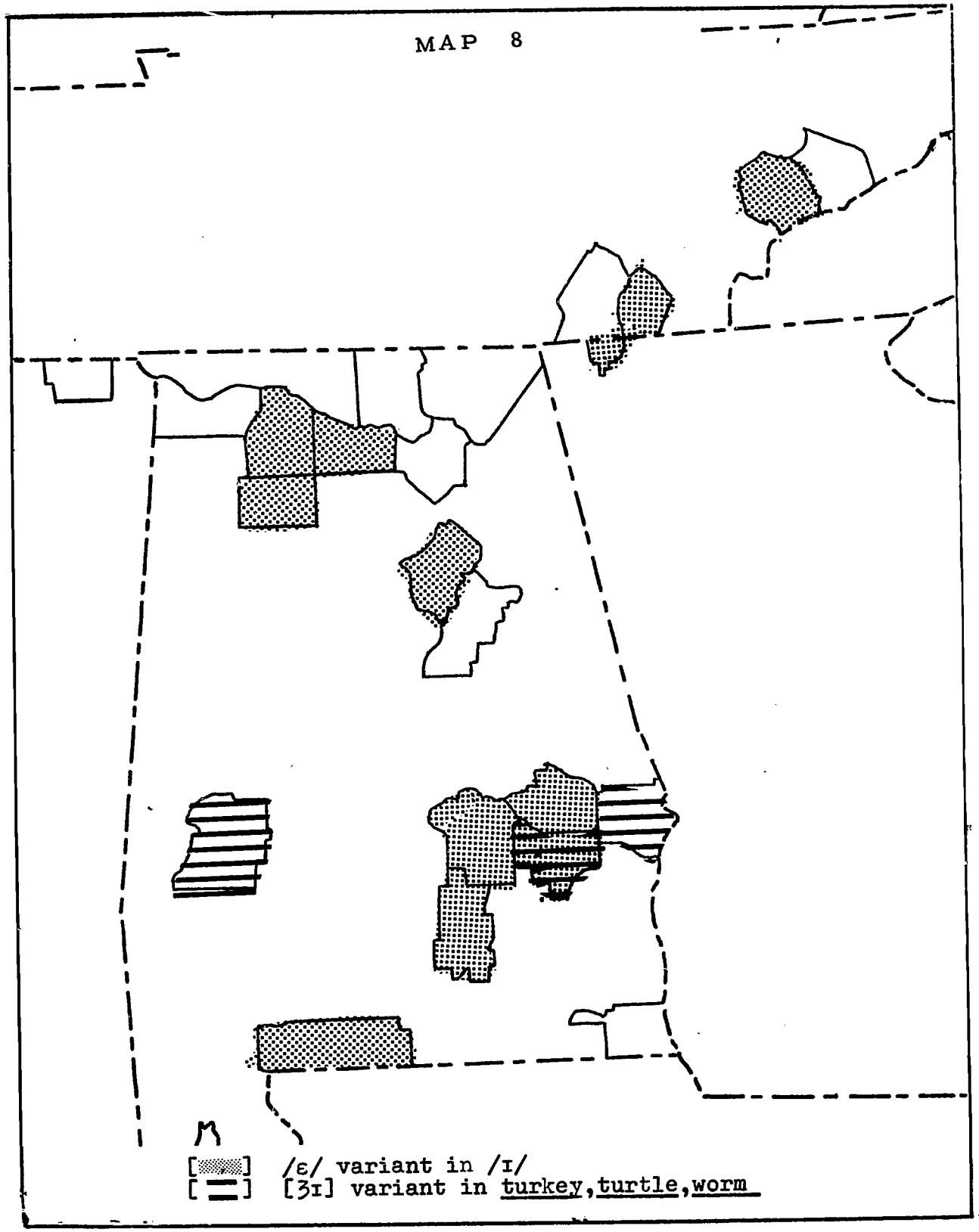
MAP 6

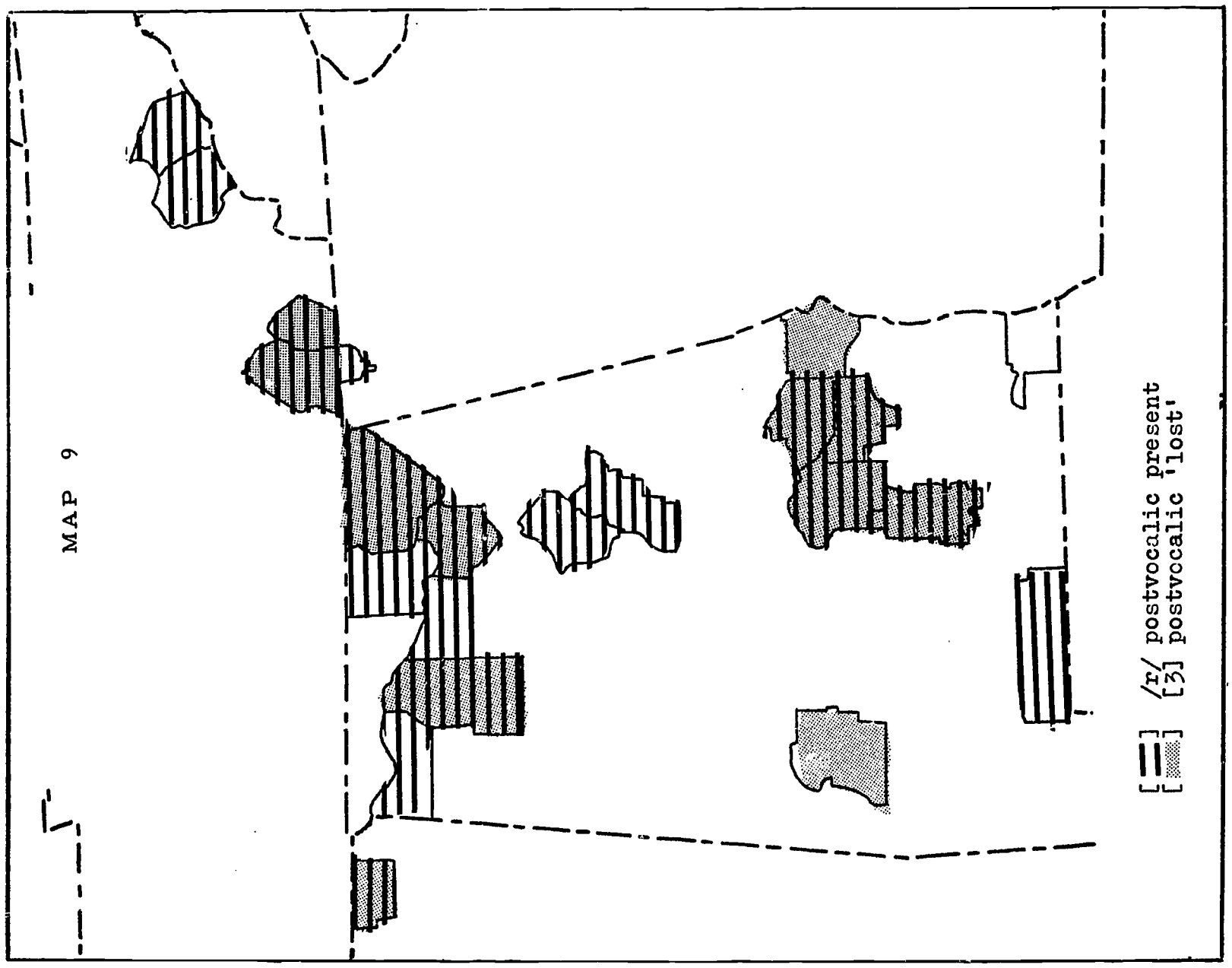

[▒▒▒▒] /ɔ/ in wasp, water, faucet, hog
[▒▒▒] /ɔ/ in arm, barbed
[▬▬] /a/ boundary for both sets

MAP 7


[aɪ] /aɪ/ reduced to /a,æ/
[au] /au/ reduced to /a,æ/
[ɛ] /ɛ/ variant in /æ,æɪ/

MAP 8


[ɛ] /ɛ/ variant in /ɪ/
[ɜɪ] [ɜɪ] variant in turkey,turtle,worm


MAP 9
/r/ postvocalic present
[ɜ] postvocalic 'lost'

1903			SYN		SYNTAX				
BEAR	NEST	CUB							3
A011S1903	1 SEE		02004		02010		04004		
A011S1903	NINETEEN	-	OH	-	THREE		A		10
A011S1903	BEAR		AND		A		HORNET*S	-	20
A011S1903	NEST		WITH		A		BABY		30
A011S1903	CUB		..						40
A021S1903	1 SEE		03008						
A021S1903	ONE	-	THOUSAND	-	NINE	-	HUNDRED	-	10
A021S1903	THREE		BEARS		STEALING		HONEY		20
A021S1903	FROM		A		BEEHIVE		.		30
A021S1903	BEAR		STANDING		UP		.		40
A021S1903	HINTQ		.		A		CUB		50
A021S1903	..								60
A031S1903	1 SEE								
A031S1903	NINETEEN	-	OH	-	THREE		IS		10
A031S1903	A		BEAR		AND		HER		20
A031S1903	CUB		WHICH		ARE		TRYING		30
A031S1903	TO		GET		INTO		A		40
A031S1903	BEEHIVE		..						50
A041S1903	1 SEE								
A041S1903	NINETEEN	-	OH	-	THREE		IS		10
A041S1903	BEARS		AFTER		BEES		.		20
A041S1903	HINTQ		.		THE		MOTHER		30
A041S1903	BEAR		AND		THE		CUB		40
A041S1903	..								50
A042W1903	1 SEE								
A042W1903	NINETEEN	-	OH	-	THREE		IS		10
A042W1903	A		BEAR		TRYING		TO		20
A042W1903	GET		SOME		HONEY		OUT		30
A042W1903	OF		A		HORNET*S		NEST		40
A042W1903	.		HINTQ		.		CUB		50
A042W1903	..								60
A051S1903	1 SEE								
A051S1903	NINETEEN	-	OH	-	THREE		IS		10
A051S1903	A		BIG		BEAR		AND		20
A051S1903	A		SMALL		BEAR		..		30
A061E1903	1 SEE		03006						
A061E1903	NINETEEN	-	OH	-	THREE		IS		10
A061E1903	AN		OLD		BEAR		INTO		20
A061E1903	A		WASP*S	-	NEST		OR		30
A061E1903	SOME		KIND		OF		.		40
A061E1903	SOMETHING		.		AND		A		50
A061E1903	LITTLE		BABY		CUB		ASTANDING		60
A061E1903	DOWN		BY		HER		..		70
A071R1903	1 SEE								
A071R1903			BEAR		.		BABY		10
A071R1903	BEAR		.		THAT/S		THE		20
A071R1903	HORNET*S	-	NEST		..				30
A081N1903	1 SEE								

A081N1903	NINETEEN	-	OH	-	THREE		IS		10
A081N1903	A		BIG		BEAR		AFTER		20
A081N1903	THE		HORNET*S	-	NEST		.		30
A081N1903	HORNETS		.		AND		THEN		40
A081N1903	THE		CUB		..				50
A082G1903	1 SEE		05004		05008				
A082G1903			HINTW		.		THAT/S		10
A082G1903	A		BEAR		.		HINTQ		20
A082G1903	.		IT/S		CATCHING		HONEY		30
A082G1903	.		IT/S		INTO		A		40
A082G1903	BUMBLE	-	BEE	-	NEST		..		50
A091N1903	1 SEE								
A091N1903			A		PEAR		GETTING		10
A091N1903	HONEY		FROM		THE		BEES		20
A091N1903	.		OFF		THE		TREE		30
A091N1903	.		AND		THE		CUB		40
A091N1903	BEAR		DOWN		AT		HER		50
A091N1903	FEET		..						60
A102G1903	1 SEE								
A102G1903	NINETEEN	-	THREE		IS		A		10
A102G1903	BEAR		TRYING		TO		GET		20
A102G1903	SOME		.		AND		A		30
A102G1903	LITTLE		BEAR		.		TRYING		40
A102G1903	TO		GET		SOME		HONEY		50
A102G1903	OUT		OF		A		HORNET*S	-	60
A102G1903	NEST		IT		LOOKS		LIKE		70
A102G1903	..								80
A111N1903	1 SEE								
A111N1903	NINETEEN	-	OH	-	THREE		A		10
A111N1903	BEAR		WITH		THE		CUB		20
A111N1903	ROBBING		THE		HORNET*S	-	NEST		30
A111N1903	.		I		DON/T		BELIEVE		40
A111N1903	THAT		THROUGH		..				50
A112G1903	1 SEE								
A112G1903			PIGS		.		HINTW		10
A112G1903	.		BEARS		IN		A		20
A112G1903	BEEHIVE		..						30
A121R1903	1 SEE								
A121R1903	NINETEEN	-	OH	-	THREE		TWO		10
A121R1903	BEARS		.		ONE		BEAR		20
A121R1903	TRYING		TO		GET		AHOLD		30
A121R1903	OF		A		HORNET*S	-	NEST		40
A121R1903	..								50
A131X1903	1 SEE								
A131X1903	NINETEEN	-	OH	-	THREE		IS		10
A131X1903	THE		BEAR		WITH		HER		20
A131X1903	CUB		AND		THEY		ARE		30
A131X1903	ROBBING		THE		HONEY		BEE		40
A131X1903	OF		HIS		HONEY		..		50
B201X1903	1 SEE								

B201X1903	NINETEEN	-	OH	-	THREE		A		10
B201X1903	BEAR		AND		A		CUB		20
B201X1903	BEAR		.		THE		OLD		30
B201X1903	BEAR		AND		THE		CUB		40
B201X1903	BEAR		AND		SHE/S		TRYING		50
B201X1903	TO		ROB		HORNET*S	-	NEST		60
B201X1903	.		AND		SHE/S		FIXING		70
B201X1903	TO		GET		INTO		BUSINESS		80
B201X1903	FOOLING		WITH		THAT		HORNET/S	-	90
B201X1903	NEST		..						100
B211S1903	1 SEE								
B211S1902	NINETEEN	-	OH	-	THREE		SOME		10
B211S1903	BEARS		ROBBING		A		BEEHIVE		20
B211S1903	.		HINTQ		.		MOTHER		30
B211S1903	BEAR		AND		THE		CUB		40
B211S1903	..								50
B332M1903	1 SEE								
B221N1903	NINETEEN	-	HUNDRED	-	AND	-	THREE		10
B221N1903	IS		A		BEAR		CLIMBING		20
B221N1903	UP		.		HE		THINKS		30
B221N1903	HE/S		GETTING		HONEY		BUT		40
B221N1903	HE		HAS		STRUCK		A		50
B221N1903	HORNET*S	-	NEST		AND		HE/S		60
B221N1903	NOT		GOING		TO		GET		70
B221N1903	MUCH		HONEY		THERE		.		80
B221N1903	I		DON/T		BELIEVE		THOSE		90
B221N1903	ARE		HONEY		BEES		.		100
B221N1903	THAT/S		A		HORNET/S	-	NEST		110
B221N1903	..								120
B231R1903	1 SEE								
B231R1903	NINETEEN	-	OH	-	THREE		BEAR		10
B231R1903	ROBBING		HORNET*S	-	NEST		..		20
B241N1903	1 SEE								
B241N1903	ONE	-	NINE	-	OH	-	THREE		10
B241N1903	BEARS		STANDING		UNDER		THE		20
B241N1903	TREE		EATING		HORNET*S	-	NEST		30
B241N1903	..								
B242N1903	1 SEE								
B242N1903	NINETEEN	-	OH	-	THREE		IS		10
B242N1903	A		BIG		TALL		BEAR		20
B242N1903	AND		A		SMALL		BEAR		30
B242N1903	AND		A		.		THAT		40
B242N1903	IS		A		HORNET*S	-	NEST		50
B242N1903	.		THE		BIG		BEAR		60
B242N1903	SEEMS		TO		BE		GOING		70
B242N1903	TO		OPEN		IT		..		80
B243N1903	1 SEE								
B243N1903	ONE	-	NINE	-	OH	-	THREE		10
B243N1903	WE		HAVE		A		COUPLE		20
B243N1903	OF		BEAR		.		ONE		30

B243N1903	OF		THEM		HAS		FOUND	40
B243N1903	HIM		A		HONEY		COMB	50
B243N1903	AND		HE/S		TRYING		TO	60
B243N1903	GET		THE		HONEY		OUT	70
B243N1903	OF		IT		••			80
B244N1903	1 SEE							
B244N1903	NINETEEN	-	OH	-	THREE		IS	10
B244N1903	TWO		BEARS		•		ONE	20
B244N1903	OF		THEM		IS		BREAKING	30
B244N1903	INTO		A		HORNET*S	-	NEST	40
B244N1903	••							50
B251N1903	1 SEE							
B251N1903	NINETEEN	-	OH	-	THREE		IS	10
B251N1903	TWO		BEARS		•		THE	20
B251N1903	BIG		BEAR		IS		GOING	30
B251N1903	INTO		A		HORNET*S	-	NEST	40
B251N1903	••							50
B252N1903	1 SEE							
B252N1903	NINETEEN	-	OH	-	THREE		PAPA	10
B252N1903	BEAR		AND		A		MAMA	20
B252N1903	BEAR		GETTING		HONEY		FROM	30
B252N1903	THE		BEEHIVE		AND		THE	40
B252N1903	BEES		FLYING		AWAY		••	50
B261W1903	1 SEE							
B261W1903	NINETEEN	-	OH	-	THREE		TWO	10
B261W1903	BEARS		•		ONE		IS	20
B261W1903	DISTURBING		THE		BEEHIVE		•	30
B261W1903	A		HORNET*S	-	NEST		•	40
B261W1903	AND		HE		WILL		PROBABLY	50
B261W1903	BE		SORRY		THAT		HE	60
B261W1903	DID		••					70
B262R1903	1 SEE							
B262R1903			THAT/S		A		BEAR	10
B262R1903	WITH		A		BEEHIVE		••	20
B271S1903	1 SEE							
B271S1903	NINETEEN	-	OH	-	THREE		IS	10
B271S1903	A		BEAR		IN		THE	20
B271S1903	HONEY		•		CUB		BEAR	30
B271S1903	••							40
B281R1903	1 SEE							
B281R1903	NINETEEN	-	OH	-	THREE		IS	10
B281R1903	A		BEAR		TEARING		DOWN	20
B281R1903	A		HORNET*S	-	NEST		TO	30
B281R1903	GET		HIM		SOME		FEED	40
B281R1903	AND		THE		OTHER		IS	50
B281R1903	STANDING		DOWN		ON		THE	60
B281R1903	GROUND		LOOKING		FOR		IT	70
B281R1903	TO		FALL		••			80
B291G1903	1 SEE							
B291G1903	NINETEEN	-	OH	-	THREE		IS	10

B291G1903	TWO	BEARS	.	ONE	20
B291G1903	OF	THEM	GETTING	HONEY	30
B291G1903	OUT	OF	A	HIVE	40
B291G1903		HITCHED	.	ATTACHED	50
B291G1903	TO	A	TREE	.	60
B291G1903	AND	THE	BEES	ALL	70
B291G1903	AROUND	..			80
B292G1903	1 SEE				
B292G1903	NINETEEN -	OH -	THREE	BIG	10
B292G1903	BEAR	AND	A	LITTLE	20
B292G1903	BEAR	LOOKING	FOR	HONEY	30
B292G1903					
1903		ITEM-END			

8086 CAR	GUN	SYN MASK	ROBBER	SYNTAX MAN	PISTOL	6
A011S8086	1RJWSEE	03008		05004	08010	
A011S8086	1RSWSEE	10008		09008		
A011S8086	EIGHTY	- EIGHTY	-	SIX	THIS	10
A011S8086	MAN/S	BEING		HELD	UP	20
A011S8086	BY	THIS		ROBBER	HERE	30
A011S8086	.	HE		HAS	A	40
A011S8086	GUN	IN		HIS	HAND	50
A011S8086	.	GOT		HIM	PINNED	70
A011S8086	UP	AGAINST		THE	WALL	71
A011S8086	.	HINTQ		.	AUTOMOBILE	80
A011S8086	OR	A		CAR	.	90
A011S8086	HINTQ			LICENSE	PLATE	100
A011S8086	..					110
A021S8086	1BBJSEE			13010		
A021S8086	OMIS					
A021S8086	NUMBER	EIGHT	-	THOUSAND	- EIGHT	- 10
A021S8086	SIX	HOLDUP		.	A	20
A021S8086	ROBBER	IS		EITHER	HOLDING	30
A021S8086	UP	A		MAN	OR	40
A021S8086	GETTING	READY		TO	KILL	50
A021S8086	HIM	BECAUSE		HE	WOULDN/T	60
A021S8086	GIVE	HIM		HIS	MONEY	70
A021S8086	ON	THE		STREET	AT	80
A021S8086	NIGHT			WITH	A	90
A021S8086	MASK	OVER		HIS	FACE	100
A021S8086	.	HE/S		GOING	TO	110
A021S8086	HIT	HIM		OVER	THE	120
A021S8086	HEAD	WITH		A	PISTOL	130
A021S8086	.	LICENSE		NUMBER	OF	140
A021S8086	THE	CAR		IS	ONE	150
A021S8086	TWO	THREE		..		160
A031S8086	1LBXSEE			17004		
A031S8086	EIGHTY	- EIGHTY	-	SIX	IS	10
A031S8086	A	PICTURE		OF	TWO	20
A031S8086	MEN	.		ONE	/F	30
A031S8086	THEM	IS		ATTACKING	THE	40
A031S8086	OTHER	OR		HOLDING	UP	50
A031S8086	WITH	THE		FORCE	OF	60
A031S8086	A	GUN		AND	EVIDENTLY	70
A031S8086	THE	MAN		IS	TRYING	80
A031S8086	A	LITTLE		SELF	- DEFENSE	- 90
A031S8086		HE		IS	TRYING	100
A031S8086	WITH	HIS		LEFT	HAND	110
A031S8086	TO	TAKE		THE	GUN	120
A031S8086	OR	PISTOL		BUT	THE	130
A031S8086	GUY	WITH		THE	MASK	140
A031S8086	OVER	HIS		FACE	.	150
A031S8086	YOU	CAN		SEE	THE	160

A031S8086	GETAWAY	-	CAR		•		IT		170
A031S8086	HAPPENS		•		OCCURS		AT		180
A031S8086	NIGHT		TIME		BECAUSE		YOU		190
A031S8086	MOON		AND		STARS		••		210
A041S8086	1DHXSEE								
A041S8086	EIGHTY	-	EIGHTY	-	SIX		IT/S		10
A041S8086	A		STICKUP		DOWNTOWN		DURING		20
A041S8086	THE		NIGHT		•		HINTQ		30
A041S8086	•		THE		GETAWAY	-	CAR		40
A041S8086	I		SUPPOSE		•		JUST		50
A041S8086	A		HANDKERCHIEF		TIED		AROUND		60
A041S8086	HIS		FACE		•		MASK		70
A041S8086	•		THE		GUN		•		80
A041S8086	HINTQ		•		HE/S		CHOKING		90
A041S8086	HIM		OR		BEATING		HIM		100
A041S8086	•		HINTQ		•		KNOCKED		110
A041S8086	HIS		HAT		OFF		••		120
A042W8086	116XSEE								
A042W8086	EIGHT	-	OH	-	EIGHT	-	SIX		10
A042W8086	IS		A		SORT		OF		20
A042W8086	CONFUSED		PICTURE		•		WE		30
A042W8086	HAVE		A		GENTLEMAN		WITH		40
A042W8086	A		HANDKERCHIEF		TIED		OVER		50
A042W8086	HIS		FACE		LIKE		A		60
A042W8086	MASK		WITH		A		PISTOL		70
A042W8086	POINTED		UP		IN		THE		80
A042W8086	AIR		AND		HE		LOOKS		90
A042W8086	LIKE		HE/S		GOT		HIS		100
A042W8086	HANDS		ON		THE		MAN*S		110
A042W8086	ADAM*S		APPLE		•		HINTQ		120
A042W8086	•		MUST		BE		GOING		130
A042W8086	TO		ROB		HIM		BUT		140
A042W8086	IT		SEEMS		AN		ODD		150
A042W8086	WAY		TO		AIM		THE		160
A042W8086	RISTOL		•		HE/S		LOSING		170
A042W8086	HIS		HAT		••				180
A051S8086	1 SEE								
A051S8086	EIGHTY	-	EIGHTY	-	SIX		IS		10
A051S8086	A		ROBBER		AT		NIGHT		20
A051S8086	WHO		IS		HOLDING		UP		30
A051S8086	ANOTHER		MAN		•		THE		40
A051S8086	ROBBER		IS		WEARING		A		50
A051S8086	HAT		WITH		A		HANDKERCHIEF		60
A051S8086	OVER		HIS		FACE		•		70
A051S8086	HE		HAS		A		LONG		80
A051S8086	SPORT		COAT		AND		A		90
A051S8086	TIE		ON		••				100
A061E8086	1 SEE								
A061E8086	EIGHT	-	OH	-	EIGHT	-	SIX		10
A061E8086	THERE		IS		A		MAN		20

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A061E8086   HOLDING     ANOTHER     MAN         AND         30
A061E8086   GOT         A           GUN         ON          40
A061E8086   HIM         AND         FIXING      TO          50
A061E8086   ROB         HIM         .           HE/S        60
A061E8086   TAKEN       HIM         OUT         OF          70
A061E8086   THE         CAR         OR          HE          80
A061E8086   GOT         OUT         OF          THE         90
A061E8086   CAR         ONE         AND         HE         100
A061E8086   HAS         A           MASK        ON         110
A061E8086   HIS         FACE        AND         HE         120
A061E8086   HAS         HIM         BY          THE        130
A061E8086   COLLAR      AND         HIS         HAT/S      140
A061E8086   OFF         ON          THE         SIDE       150
A061E8086   ..                                              160

A071R8086   1JBXSEE     02006
A071R8086               HINTQ       .           THAT/S      10
A071R8086   A           REVOLVER    .           HINTQ       20
A071R8086   .           HANDKERCHIEF .          HINTQ       30
A071R8086   .           HE/S        GOING       TO          40
A071R8086   SHOOT       HIM         .           HINTQ       50
A071R8086   .           THAT/S      THE         BAR         60
A071R8086   TO          THE         BACK        END         70
A071R8086   OF          THE         CAR         .           80
A071R8086   HINTQ       .           OH          YES         90
A071R8086   .           NEW         MOON        ..         100

A081N8086   1   SEE
A081N8086   EIGHTY  -   EIGHTY  -   SIX         IS          10
A081N8086   THE         MOON        AND         THE         20
A081N8086   STARS       AND         I           GUESS       30
A081N8086   THIS        MAN         IS          HOLDING     40
A081N8086   THIS        OTHER       MAN         UP          50
A081N8086   .           HE          HAS         A           60
A081N8086   COVER       OVER        HIS         FACE        70
A081N8086   ..                                              80

A082G8086   1   SEE
A082G8086               THERE/S     THE         NEW         10
A082G8086   MOON        AGAIN       AND         THE         20
A082G8086   STARS       .           A           MAN         30
A082G8086   WITH        A           MASK        ON          40
A082G8086   AND         HE/S        FIXING      TO          50
A082G8086   SHOOT       THIS        FELLER      FOR         60
A082G8086   SOME        CAUSE       ..                      70
A091N8086   1GMXSEE     02010
A091N8086   EIGHT   -   OH      -   EIGHT   -   SIX         10
A091N8086   THIS        IS          A           BANDIT      20
A091N8086   HOLDING     SOME        ONE         UP          30
A091N8086   .           HE          HAS         HIS         40
A091N8086   GUN         .           THE         OTHER       50
A091N8086   MAN*S       HAT         HAS         FALLEN      60
A091N8086   OFF         .           HIS         CAR         70
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A091N8C86	IS	SITTING	HERE	.		80
A091N8C86	THE	MCON	IS	SHINING		90
A091N8C86	AND	THE	STARS	SO		100
A091N8C86	IT	MUST	BE	NIGHT		110
A091N8C86	..					120
A101G8C86	1 SEE					
A101G8C86		.	THIS	IS		10
A101G8C86	A	KIND	OF	A		20
A101G8C86	HOLDUP	.	IT/S	A		30
A101G8C86	MAN	.	HE	HAS		40
A101G8C86	A	SCARF	AND	HE		50
A101G8C86	HAS	GOT	THE	OTHER		60
A101G8C86	MAN	BY	THE	THROAT		70
A101G8C86	AND	HAS	KNOCKED	HIS		80
A101G8C86	HAT	OFF	.	DOWN		90
A101G8C86	.	AND	HE/S	GOT		100
A101G8C86	HIS	CAR	STANDING	OUT		110
A101G8C86	HERE	.	HE/S	READY		120
A101G8C86	TO	DO	SOME	HARM		130
A101G8C86	AND	MAKE	HIS	GETAWAY		140
A101G8C86	..					150
A102G8C86	1 SEE					
A102G8C86	EIGHTY	- EIGHTY	- SIX	WE		10
A102G8C86	GOT	A	HOLDUP	.		20
A102G8C86	MAN	GOT	A	GUN		30
A102G8C86	DRAWED	ON	ANOTHER	MAN		40
A102G8C86	.	DONE	KNOCKED	HIS		50
A102G8C86	HAT	OFF	.	THERE		60
A102G8C86	IS	A	CAR	SITTING		70
A102G8C86	THERE	WAITING	TO	CARRY		80
A102G8C86	HIM	OFF	..			90
A111N8C86	1 SEE					
A111N8C86	EIGHT	- OH	- EIGHT	- SIX		10
A111N8C86	HOLDUP	.	TELLS	TO		20
A111N8C86	ME	THAT	THE	ROBBER		30
A111N8C86	IS	THE	DRIVER	AND		40
A111N8C86	OWNER	OF	THE	CAR		50
A111N8C86	HOLDING	UP	THE	PASSERBY		60
A111N8C86	WITH	THE	PISTOL	.		70
A111N8C86	WHICH	HE/S	ALREADY	KNOCKED		80
A111N8C86	OFF	HIS	HAT	AND		90
A111N8C86	IT/S	ON	ITS	WAY		100
A111N8C86	TO	THE	GROUND	..		110
A112G8C86	1 SEE					
A112G8C86		ROBBER	ROBBING	A		10
A112G8C86	MAN	BY	MOONLIGHT	WITH		20
A112G8C86	A	MASK	OBER	HIS		30
A112G8C86	FACE	AND	GUN	IN		40
A112G8C86	HIS	HAND	.	CHOKING		50
A112G8C86	HIM	.	CAR	TO		60

A112G8086	ESCAPE	IN	••		70
A121R8C86	1 SEE				
A121R8C86	EIGHT -	CH -	EIGHT -	SIX	10
A121R8C86	A	HCLDUP	AT	NIGHT	20
A121R8086	•	MAN	WITH	A	30
A121R8086	MASK	CVER	HIM	HOLDING	40
A121R8C86	UP	THE	OTHER	ONE	50
A121R8086	•	THER/S	THE	PROBABLY	60
A121R8C86	THE	GETAWAY -	CAR	FOR	70
A121R8086	THE	MAN	THAT/S	HOLDING	80
A121R8086	HIM	•	MOCN	AND	90
A121R8C86	STARS	ARE	OUT	••	100
A131X8086	1 SEE				
A131X8086	EIGHT -	CH -	EIGHTY -	SIX	10
A131X8086	IS	A	BLACKMAILER	THREATENING	20
A131X8086	A	MAN*S	LIFE	•	30
A131X8086	HE/S	GCT	HIM	OUT	40
A131X8086	OF	HIS	CAR	AND	50
A131X8086	HIS	HAT/S	BEEN	KNOCKED	60
A131X8086	OFF	•	THE	MOON	70
A131X8086	IS	SHINING	ON	THEM	80
A131X8086	•	HINTQ	•	A	90
A131X8C86	NIGHT	RCBBERY	••		100
B201X8086	1LRTSEE				
B201X8086	EIGHT -	CH -	EIGHTY -	SIX	10
B201X8C86	WELL	THERE/S	A	DESPERADO	20
B201X8C86	THAT/S	A	RCBBER	•	30
B201X8C86	HE/S	GCT	HIS	FACE	40
B201X8086	MASKED	•	GOT	THE	50
B201X8C86	GUN	IN	HIS	HAND	60
B201X8086	•	GCT	THE	GUY	70
B201X8C86	BY	THE	THROAT	•	80
B201X8086	AND	THERE/S	THIS	CAR	90
B201X8086	BACK	THERE	READY	TO	100
B201X8C86	TAKE	OFF	••		110
B211S8086	1 SEE				
B211S8086	EIGHTY -	EIGHTY -	SIX	THAT/S	10
B211S8C86	A	RCBBERY	TAKING	PLACE	20
B211S8C86	•	HINTQ	•	HE/S	30
B211S8086	HCLDING	THIS	ONE	UP	40
B211S8086	•	HINTQ	•	A	50
B211S8C86	MASK	•	HINTW	•	60
B211S8086	A	GUN	•	HINTQ	70
B211S8086	•	HE	HAS	HIM	80
B211S8086	BY	THE	THROAT	•	90
B211S8C86	HINTQ	•	A	CAR	100
B211S8C86	•	TIRE	•	BUMPER	110
B211S8C86	••				120
B221N8C86	1 SEE				
B221N8C86	OMIS				1

B221N8086	NUMBER		EIGHT	-	CH	-	EIGHT	-		11
B221N8086	SIX		SEEMS		TO		BE			20
B221N8086	A		BANDIT		.		A			30
B221N8086	ROBBER		THAT		IS		ATTACKING			40
B221N8086	THE		MAN		AND		GOING			50
B221N8086	TO		ROB		HIM		.			60
B221N8086	HE/S		GOT		HIS		PISTOL			70
B221N8086	IN		HIS		HAND		AND			80
B221N8086	HE		IS		EVIDENTLY		KNOWN			90
B221N8086	TO		THE		MAN		THAT			100
B221N8086	HE		IS		ROBBING		BECAUSE			110
B221N8086	HE/S		GOT		A		MASK			120
B221N8086	A		HANDKERCHIEF		TIED		OVER			130
B221N8086	HIS		FACE		SO		HE			140
B221N8086	RECOGNIZED		.		AS		SOON			150
B221N8086	AS		HE		ROBS		HIM			160
B221N8086	HE/S		GOING		TO		GET			170
B221N8086	AWAY		IN		HIS		CAR			180
B221N8086	SITTING		OVER		THERE		WITH			190
B221N8086	TAG		NUMBER		ONE		TWO			200
B221N8086	THREE		SITTING		ON		IT			210
B221N8086	..									220
B231R8086	1 SEE									
B231R8086	EIGHTY	-	EIGHTY	-	SIX		BANDIT			10
B231R8086	HOLDING		UP		MAN		..			20
B241N8086	1 SEE									
B241N8086	EIGHT	-	CH	-	EIGHT	-	SIX			10
B241N8086	A		BANDIT		WITH		A			20
B241N8086	MASK		AND		PISTOL		HOLDING			30
B241N8086	UP		A		MAN		WITH			40
B241N8086	HIS		CAR		AND		THE			50
B241N8086	MOON		SHINING		ON		THEM			60
B241N8086	AND		THE		STARS		ABOVE			70
B241N8086	..									80
B242N8086	1EMXSEE		03006							
B242N8086	EIGHTY	-	EIGHTY	-	SIX		IS			10
B242N8086	A		HOLDUP		SCENE		.			20
B242N8086	THE		HOLDUP	-	MAN		HAS			30
B242N8086	A		BANDANA		OVER		HALF			40
B242N8086	OF		HIS		FACE		AND			50
B242N8086	HE		HAS		A		GUN			60
B242N8086	IN		HIS		HAND		AND			70
B242N8086	HE		HAS		THE		MAN			80
B242N8086	AT		THE		THROAT		AND			90
B242N8086	HIS		.		THE		MAN/S			100
B242N8086	HAT		IS		FALLING		OFF			110
B242N8086	AND		IT/S		AT		NIGHT			120
B242N8086	BECAUSE		YOU		CAN		SEE			130
B242N8086	THE		MOON		AND		STARS			140
B242N8086	AND		THERE		IS		AN			150

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B242N8086   AUTOMOBILE      NEAR          BY            ..          160
B243N8086  1   SEE
B243N8086   EIGHT     -     OH      -     EIGHT     -   SIX          10
B243N8086   SEEMS           TO            BE            A           20
B243N8086   KIND            OF            HOLDUP        .           30
B243N8086   MAN             HAS           GOT           A           40
B243N8086   MASK            OVER          HIS           FACE        50
B243N8086   AND             HE/S          GOT           HIS         60
B243N8086   GUN             ON            THIS          FELLOW      70
B243N8086   AND             HE/S          EVIDENTLY     CAUGHT      80
B243N8086   HIM             OUT           OF            HIS         90
B243N8086   CAR             AND           FIXING        TO         100
B243N8086   ROB             HIM           ..                       110
B244N8086  1   SEE
B244N8086   EIGHT     -     OH      -     EIGHT     -   SIX          10
B244N8086   IS              A             NIGHT         SCENE       20
B244N8086   .               THE           MOON          AND         30
B244N8086   STARS           AND           IT/S          A           40
B244N8086   HOLDUP          .             A             MAN         50
B244N8086   WITH            A             MASK          AND         60
B244N8086   HIS             GUN           HOLDING       A           70
B244N8086   MAN             BY            THE           COLLAR      80
B244N8086   .               HAT           HAS           FALLEN      90
B244N8086   OFF             AND           THERE         IS         100
B244N8086   AN              AUTOMOBILE    WAITING       FOR        110
B244N8086   HIM             ..                                     120
B251N8086  1   SEE
B251N8086   EIGHT     -     OH      -     EIGHT     -   SIX          10
B251N8086   IS              A             HOLDUP        .           20
B251N8086   A               MASKED        MAN           HAS         30
B251N8086   ANOTHER         MAN           BY            THE         40
B251N8086   THROAT          .             CHOKING       HIM         50
B251N8086   .               THEY          ARE           IN          60
B251N8086   FRONT           OF            A             BUILDING    70
B251N8086   THAT            COULD         BE            A           80
B251N8086   BANK            BUILDING      AND           THE         90
B251N8086   HOLDUP    -     MAN           HAS           A          100
B251N8086   GUN             AND           YOU           KNOW       110
B251N8086   IT              IS            NIGHT         BECAUSE    120
B251N8086   THERE           IS            A             MOON       130
B251N8086   UP              THERE         AND           AND        140
B251N8086   AN              AUTOMOBILE    PARKED        OUT        150
B251N8086   FRONT           .             THAT/S        ALL        160
B251N8086   ..                                                     170
B252N8086  1   SEE
B252N8086   EIGHT     -     OH      -     EIGHT     -   SIX          10
B252N8086   IS              A             SCENE         OF          20
B252N8086   A               HOLDUP        .             THE         30
B252N8086   BURGLAR         HAS           A             HANDKERCHIEF 40
B252N8086   AROUND          HIS           MOUTH         AND         50
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B252N8086	NOSE		JUST		BELOW	HIS	60
B252N8086	EYES		.		HE	HAS	70
B252N8086	AN		OLD		SOFT	BLACK	80
B252N8086	HAT		ON		AND	HE/S	90
B252N8086	KNOCKED		THE		OTHER	MAN*S	100
B252N8086	HAT		OFF		AND	HAS	110
B252N8086	HIM		BY		THE	COLLAR	120
B252N8086	AND		HE/S		EVIDENTLY	GOING	130
B252N8086	TO		TAKE		ALL	THE	140
B252N8086	MONEY		HE		HAS	.	150
B252N8086	IT/S		LATE		AT	NIGHT	160
B252N8086	BECAUSE		THE		MOON	IS	170
B252N8086	SHINING		AND		THE	STARS	180
B252N8086	ARE		BRIGHT		AND	THERE	190
B252N8086	IS		A		CAR	WAITING	200
B252N8086	FOR		THE		GETAWAY	..	210
B261W8086	1 SEE						
B261W8086	EIGHTY	-	EIGHTY	-	SIX	A	10
B261W8086	HOLDUP		.		A	MAN	20
B261W8086	WITH		A		HANDKERCHIEF	OVER	30
B261W8086	HIS		EYES		AND	HE	40
B261W8086	HAS		A		PISTOL	IN	50
B261W8086	HIS		HAND		.	HIS	60
B261W8086	HAND		IS		ON	THE	70
B261W8086	OTHER		MAN*S		THROAT	AND	80
B261W8086	A		CAR		IS	WAITING	90
B261W8086	TO		SPEED		HIM	AWAY	100
B261W8086	.		WE		KNOW	IT	110
B261W8086	IS		NIGHT		BECAUSE	WE	120
B261W8086	SEE		THE		STARS	AND	130
B261W8086	THE		MOON		..		140
B262R8086	1 SEE						
B262R8086			AND		HERE/S	THE	10
B262R8086	HOLDUP	-	MAN		.	HOLDING	20
B262R8086	UP		THIS		MAN	TRYING	30
B262R8086	TO		GET		MONEY	.	40
B262R8086	I		GUESS		HE/LL	DO	50
B262R8086	IT		..				60
B271S8086	1 SEE						
B271S8086	EIGHTY	-	EIGHTY	-	SIX	IS	10
B271S8086	A		HOLDUP		.	GOT	20
B271S8086	A		MAN		HAS	GOT	30
B271S8086	A		GUN		.	MASK	40
B271S8086	.		HAT		.	HE/S	50
B271S8086	GOT		A		SUIT	.	70
B271S8086	HE/S		LOST		HIS	HAT	70
B271S8086	.		BEING		HELD	UP	80
B271S8086	.		AUTOMOBILE		TAG	NUMBER	90
B271S8086	..						100
B281R8086	1 SEE						

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B281R8C86   EIGHTY      -   EIGHTY      -   SIX          IS           10
B281R8C86   A               ROBBERY         HAS          OCCURRED     20
B281R8C86   BACK            ON              THE          HIGHWAY      30
B281R8086   .               MAN             WITH         A            40
B281R8086   MASK            OVER            HIS          FACE         50
B281R8C86   .               GUN             IN           HIS          60
B281R8086   HANDS           .               AND          THE          70
B281R8C86   OTHER           FELLOW          HELD         UP           80
B281R8C86   .               VERY            MUCH         RESEMBLING   90
B281R8086   A               ROBBERY         ..                        100
B291G8C86   1   SEE
B291G8C86   EIGHTY      -   EIGHTY      -   SIX          DEPICTS      10
B291G8C86   A               HOLDUP          .            IT/S         20
B291G8C86   MOONLIGHT       AND             STARS        ARE          30
B291G8C86   SHINING         .               THERE        IS           40
B291G8C86   AN              AUTOMOBILE      THERE        .            50
B291G8C86   A               MAN             HAS          A            60
B291G8C86   MASK            OVER            HIS          FACE         70
B291G8C86   AND             A               PISTOL       IN           80
B291G8C86   HIS             HAND            .            AND          90
B291G8C86   HE              HAS             GRABBED      THE          100
B291G8C86   OTHER           MAN             BY           THE          110
B291G8C86   THROAT          AND             KNOCKED      HIS          120
B291G8C86   HAT             OFF             ..                        130
B292G8C86   1   SEE
B292G8C86   EIGHT       -   OH          -   EIGHT        -   SIX      10
B292G8C86   HE              MUST            HAVE             GOTTEN   20
B292G8C86   OUT             OF              HIS              CAR      30
B292G8C86   AND             THE             MAN/S            HOLDING  40
B292G8C86   HIM             UP              WITH             A        50
B292G8C86   MASK            ON              HIS              FACE     60
B292G8C86   AND             HE/S            GOT              A        70
B292G8C86   GUN             IN              HIS              HAND     80
B292G8C86   .               IT/S            NIGHT            .        90
B292G8C86   THE             MOONS           SHINING          ..       100
      8C86                  ITEM-END        LEXICON
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SUB-REGIONAL SPEECH VARIATIONS IN VOCABULARY,GRAMMAR,PRONUNCIATION GORDON R WOOD
21-13-7-85921-STRUCTURE GRANT 3046 NEWDER 3-6-050909-0972 1966-67

ITEM NUMBER 311

(SPECIAL WORD) WOODPECKER

				PLACE	AGE-ED	NUMBER OF LOCAL OCCURRENCE	PERCENT OF TOTAL
THREE	HUNDRED	AND	ELEVEN	B241	N		.0
THREE	HUNDRED	AND	ELEVEN	A102	G		.0
THREE	HUNDRED	AND	ELEVEN	A061	E		.0
THREE	HUNDRED	ELEVEN		A021	S	1	5.2
THREE	HUNDRED	ELEVEN		B221	N		.0
THREE	TEN			B244	N		.0
THREE	ELEVEN			A011	S	1	5.2
THREE	ELEVEN			A042	W	1	5.2
THREE	ELEVEN			A031	S	2	10.5
THREE	ELEVEN			A041	S	1	5.2
THREE	ELEVEN			B211	S	1	5.2
THREE	ELEVEN			A051	S	1	5.2
THREE	ELEVEN			B231	R	1	5.2
THREE	ELEVEN			A111	N	1	5.2
THREE	ELEVEN			B242	N		.0
THREE	ELEVEN			A121	R		.0
THREE	ELEVEN			A131	X	1	5.2
THREE	ELEVEN			B251	N	1	5.2
THREE	ELEVEN			B271	S	1	5.2
THREE	ELEVEN			A081	N	1	5.2
THREE	ELEVEN			B201	X	1	5.2
THREE	ELEVEN			A091	N		.0
THREE	ELEVEN			B252	N	1	5.2
THREE	ELEVEN			B291	G		.0
THREE	ELEVEN			B292	G	1	5.2
THREE	ELEVEN			B261	W	1	5.2
THREE	ELEVEN			B281	N		.0
FIVE	ELEVEN			B243	N	1	5.2
				A101	G		.0
				A112	G		.0
				B262	R		.0
				A082	G		.0
				A071	R		.0

TOTAL RESPONSES 9

GROUP 'A'	10	52.6
GROUP 'B'	9	47.3

ITEM NUMBER 311

(SPECIAL WORD) PECKER WOOD

				PLACE	AGE-ED	NUMBER OF LOCAL OCCURRENCE	PERCENT OF TOTAL
THREE	HUNDRED	AND	ELEVEN	B241	N	1	7.1
THREE	HUNDRED	AND	ELEVEN	A102	G	1	7.1
THREE	HUNDRED	AND	ELEVEN	A061	E		.0
THREE	HUNDRED	ELEVEN		A021	S		.0
THREE	HUNDRED	ELEVEN		B221	N	1	7.1
THREE	TEN			B244	N	1	7.1
THREE	ELEVEN			A011	S		.0
THREE	ELEVEN			A042	N		.0
THREE	ELEVEN			A031	S		.0
THREE	ELEVEN			A041	S	1	7.1
THREE	ELEVEN			B211	S		.0
THREE	ELEVEN			A051	S		.0
THREE	ELEVEN			B231	R		.0
THREE	ELEVEN			A111	N		.0
THREE	ELEVEN			B242	N	1	7.1
THREE	ELEVEN			A121	R	1	7.1
THREE	ELEVEN			A131	X		.0
THREE	ELEVEN			B251	N		.0
THREE	ELEVEN			B271	S		.0
THREE	ELEVEN			A081	N		.0
THREE	ELEVEN			B201	X		.0
THREE	ELEVEN			A091	N	1	7.1
THREE	ELEVEN			B252	N		.0
THREE	ELEVEN			B291	G	1	7.1
THREE	ELEVEN			B292	G		.0
THREE	ELEVEN			B261	N		.0
THREE	ELEVEN			B281	R		.0
FIVE	ELEVEN			B243	N		.0
				A101	G	1	7.1
				A112	G		.0
				B262	R	2	14.2
				A082	G	1	7.1
				A071	R	1	7.1

TOTAL RESPONSES 4

GROUP 'A'	7	50.0
GROUP 'B'	7	50.0

A071RCC90	ONE	..			4
A112GCC90	NINETY	I	JUST	DON/T	1
A112GCC90	KNOW	ABOUT	THAT	ONE	2
A112GCC90	..				3
A121RCC90		I	DON/T	KNOW	1
A121RCC90	..				2
B211SCC90	NINETY	ICE	BLOCK	WITH	1
B211SCC90	HANDLES	ON	IT	..	2
B241NCC90	NINETY	LASSO	..		1
A121RC112	HUNDRED -	AND -	THELVE	IS	1
A121RC112	THAT	A	LEOPARD	..	2
B2C1XC112	ONE -	TWELVE	THAT/S	TOO	1
B2C1XC112	BIG	FOR	A	HOUSE -	2
B2C1XC112	CAT	,	IT	WOULD	3
B2C1XC112	BE	TOO	LARGE	FOR	4
B2C1XC112	A	HOUSE -	CAT	SO	41
B2C1XC112	I	GUESS	THAT/S	A	5
B2C1XC112	WILD -	CAT	..		6
B241NC112	HUNDRED -	AND -	THELVE	IS	1
B241NC112	A	ZEBRA	..		2
A082GC179		MAN	WITH	HIS	1
A082GC179	.	IS	THAT	A	11
A082GC179	PISTOL	.	AND	A	2
A082GC179	PISTOL	IN	HIS	HAND	21
A082GC179	..				3
B243NC179	ONIS				1
B243NC179	NUMBER	ONE -	SEVENTY -	NINE	11
B243NC179	SEEMS	TO	BE	A	2
B243NC179	OLD	TIME	HIGHWAY -		30
B243NC179	PATROLMAN	AND	HE'S	HOLLERING	40
B243NC179	STOP	..			51
B211SC225	TWO -	TWENTY -	FIVE	THAT/S	1
B211SC225	JUST	FLOWERS			11
B211SC225	.	HINTO	.	LILIES	2

	945	1 E*		RE*D-WXRM	4
	945	1 I*		RI*D-WXRM	2
	945	3 E*I*		RE*I*C-WXRM	12
	945	2 X		RE*D-WXRM	8
	945	3 X		RE*D-WXRM	13
	945	2 C*		K8TC*88	7
	945	3 UI*		UI*Q	14
AC21S	2	XRQ	-	WXRM	
AC61E	6	K8TC*88	-	WXRM	
AC71R	8	XRQ	-	WXRM	
B211S	18	REI*D-WXRM			
B231R	19	K8TC*88	-	WXRM	
B242N	20	UI*Q-WUI*N			
B243N	21	K8TC*88	-	WXRM	
B244N	22	UI*Q-WUI*N			
B262R	24	UI*Q-WUI*N			
B271S	25	RI*S-WXRM			
B281R	26	K8TC*88	-	WXRM	
B291G	27	XRQ	-	WXRM	

ITEM 945 WORD 2 RED-WORM RE*D-WXRM

4 RE*D-WXRM PLACE	AGE EDL	CLASSIFICATION I	I*	E	E*	2 RI*D-WXRM (OPTION 1) A*	A	12 RE*I*D-WXRM (OPTION 1) O*	8 RE*D-WXRM (OPTION 2) X	O	13 RE*D-WXRM (OPTION 2) U*	U
A011	S	0	0	C	0	0	0	0	0	0	0	C
A021	S	0	C	C	1	0	0	0	1	0	0	C
A031	S	0	1	C	0	0	0	0	0	0	C	0
A041	S	0	1	C	0	0	0	0	0	0	0	C
A051	S	0	1	C	0	0	0	0	0	0	0	0
A061	E	0	C	C	0	0	0	0	0	0	0	C
B221	N	0	C	C	0	0	0	0	0	0	0	C
A071	R	0	0	C	0	0	0	0	0	0	0	0
A081	N	0	0	C	1	0	0	0	1	0	0	C
A091	N	0	C	C	0	0	0	0	0	0	0	C
A101	G	0	C	C	0	0	0	0	0	0	0	C
A102	G	0	C	C	1	0	0	0	1	0	C	0
A111	N	0	1	C	0	0	0	0	0	0	0	0
A112	G	0	0	C	1	0	0	0	1	0	0	C
A121	R	0	C	C	1	0	0	0	1	0	0	C
A131	X	0	1	C	0	0	0	0	0	0	C	0
B201	X	0	C	C	1	0	0	0	1	0	0	0
B211	S	0	C	0	0	0	0	0	0	0	0	C
B231	R	0	C	C	0	0	0	0	0	0	0	C
B242	N	0	0	C	0	0	0	0	0	0	0	0
B243	N	0	C	C	0	0	0	0	0	0	0	0
B244	N	0	C	C	0	0	0	0	0	0	0	0
B252	N	0	0	C	1	0	0	0	1	0	0	0
B262	R	0	0	C	0	0	0	0	0	0	0	0
B271	S	0	0	C	0	0	0	0	0	0	0	0
B281	R	0	0	C	0	0	0	0	0	0	0	0
B291	G	0	0	C	0	0	0	0	0	0	0	0
TOT.	A	0	5	C	5	0	0	0	5	0	0	C
TOT.	B	0	0	0	2	0	0	0	2	0	C	C
PERC	A	0	100	C	70	0	0	0	70	0	C	C
PERC	B	0	0	C	28	0	0	0	28	0	0	0

ITEM 945 WORD 2 RED-WORM RE*D-WXRM

4 RE*D-WXRM 2 RI*D-WXRM 12 RE*I*D-WXRM 8 RE*D-WXRM 13 RE*D-WXRM

PLACE AGE CLASSIFICATION (OPTION 3)

	EDU	E*I*	X	UI*
A011	S	1	C	C
A021	S	0	1	C
A031	S	0	0	C
A041	S	0	0	C
A051	S	0	C	C
A061	E	0	C	C
B221	N	0	0	C
A071	R	0	C	0
A081	N	0	1	C
A091	N	1	C	C
A101	G	1	0	C
A102	G	0	1	C
A111	N	0	0	C
A112	G	0	1	C
A121	R	0	1	C
A131	X	0	C	0
B201	X	0	1	0
B211	S	0	0	C
B231	R	0	0	C
B242	N	0	0	0
B243	N	0	0	0
B244	N	0	0	C
B252	N	0	1	0
B262	R	0	0	0
B271	S	0	0	C
B281	R	0	0	0
B291	G	0	0	C
TOT.	A	3	5	0
TOT.	B	0	2	C
PERC	A	99	70	0
PERC	B	0	28	C

C311		SYN	SYNTAX			3
WCODPECKER	WCCD	BIRD				
	1 SEE	C1008				
AC11SC311	THREE	- ELEVEN	WCCDPECKER	••		1
	1 SEE					
AC21SC311	THREE	- HUNDRED	- ELEVEN	RED		1
AC21SC311	HEADED	WCCDPECKER		••		2
	1 SEE					
AC31SC311	THREE	- ELEVEN	WCCDPECKER	RED		1
AC31SC311	HEADED	WCCDPECKER	••			2
	1 SEE	C5C1C				
AC41SC311	THREE	- ELEVEN	IS	A		1
AC41SC311	BIRD	A	WCCDPECKER	•		2
AC41SC311	NCW	ALL	MY	LIFE		3
AC41SC311	I	MEAN	I	KNEW		4
AC41SC311	IT	AS	A	PECKER	-	5
AC41SC311	WCCD	•	THREE	WAS		6
AC41SC311	NC	•	THEY	WAS		7
AC41SC311	INTERCHANGE	- ABLE	••			8
	1 SEE					
AC42WC311	THREE	- ELEVEN	IS	A		1
AC42WC311	RED	HEADED	WCCDPECKER	••		2
	1 SEE					
AC51SC311	THREE	- ELEVEN	IS	A		1
AC51SC311	RED	HEADED	WCCDPECKER	••		1
	1 SEE	C6C04				
AC61EC311	THREE	- HUNDRED	- AND	- ELEVEN		1
AC61EC311	IS	A	BIRD	ASITTING		2
AC61EC311	CN	A	LOG	AND		3
AC61EC311	HE/S	APECKING	IN	IT		4
AC61EC311	•	THEY	CALL	THEM		5
AC61EC311	PECKER	- WCCDS	••			6
	1 SEE					
AC71RC311	PECKER	- WCCD	••			1
	1 SEE					
AC81NC311	THREE	- ELEVEN	IS	THE		1
AC81NC311	WCCDPECKER	CN	THIS	LIMB		2
AC81NC311	••					
	1 SEE					
AC82GC311	PECKER	- WCCD	••			1

	1 SEE						
AC91NC311	THREE	-	ELEVEN		IS	A	1
AC91NC311	RED		HEAD		PECKER	- WOOD	2
AC91NC311	••						3
	1 SEE						
A101GC311	THAT/S		A		PECKER	- WOOD	1
A101GC311	RED		HEADED		BIRD	••	2
	1 SEE						
A102GC311	THREE	-	HUNDRED	-	AND	- ELEVEN	1
A102GC311	IS		A		RED	HEADED	2
A102GC311	PECKER	-	WOOD		••		3
	1 SEE						
A111NC311	THREE	-	ELEVEN		A	WOODPECKER	1
A111NC311	••						2
	1 SEE						
A112GC311	BIRD		ON		A	LIMB	1
A112GC311	OF		A		TREE	•	2
A112GC311	HUNTS		WOODCHUCK		••		3
	1 SEE						
A121RC311	THREE	-	ELEVEN		IS	A	1
A121RC311	RED		HEADED		PECKER	- WOOD	2
A121RC311	••						
	1 SEE						
A131XC311	THREE	-	ELEVEN		IS	A	1
A131XC311	RED		HEADED		WOODPECKER	••	2
	1 SEE						
B201XC311	THREE	-	ELEVEN		THAT/S	A	1
B201XC311	LITTLE		BIRD		A	LITTLE	2
B201XC311	SAPSUCKER		A		LITTLE	WOODPECKER	3
B201XC311	HE/S		ON		THE	TREE	4
B201XC311	•		I		GOT	ONE	5
B201XC311	RIGHT		BACK		THERE	AND	6
B201XC311	HE/LL		GO		OUT	THERE	7
B201XC311	AND		NAIL		THAT	TREE	8
B201XC311	AND		HE		SOUNDS	LIKE	9
B201XC311	SOMEONE		BEATING		A	GONG	10
B201XC311	••						11
	1 SEE						
B211SC311	THREE	-	ELEVEN		A	WOODPECKER	1
B211SC311	••						2

	1	SEE					
B221NC311	CMIS		NUMBER	THREE	-	HUNDRED -	1
B221NC311	ELEVEN		IS	A		RED	2
B221NC311	HEAD		PECKER -	WOOD		••	3
	1	SEE					
B231RC311	THREE	-	ELEVEN	IS		A	1
B231RC311	WOODPECKER		RED	WHITE		AND	2
B231RC311	BLUE		••				3
	1	SEE					
B241NC311	THREE	-	HUNDRED -	AND	-	ELEVEN	1
B241NC311	RED		HEAD	PECKER	-	WOOD	2
B241NC311	••						3
	1	SEE					
B242NC311	THREE	-	ELEVEN	IS		A	1
B242NC311	RED		HEADED	PECKER	-	WOOD	2
B242NC311	ON		A	LIMB		•	3
B242NC311	OAK		TREE	AND		THAT	4
B242NC311	OAK		TREE	HAS		AN	5
B242NC311	ACORN		THAT	I		CAN	6
B242NC311	SEE		••				7
	1	SEE					
B243NC311	FIVE	-	ELEVEN	A		RED	1
B243NC311	HEADED		WOODPECKER	••			2
	1	SEE					
B244NC311	THREE	-	TEN	IS		A	1
B244NC311	RED		HEADED	PECKER	-	WOOD	2
B244NC311	••						3
	1	SEE					
B251NC311	THREE	-	ELEVEN	IS		A	1
B251NC311	BIRD		•	IT		MUST	2
B251NC311	BE		A	WOODPECKER		••	3
	1	SEE					
B252NC311	THREE	-	ELEVEN	I		DON/T	1
B252NC311	KNOW		MY	BIRDS		BLUEJAY	2
B252NC311	HINTW		WOODPECKER	ON		A	3
B252NC311	LIMB		••				4
	1	SEE					
B261WC311	THREE	-	ELEVEN	A		WOODPECKER	1
B261WC311	••						
	1	SEE					

B262RC311	THIS		IS	A	PECKER	-	1
B262RC311	WCCD		BIRD	•	I		2
B262RC311	BELIEVE		WE	CALL	IT		3
B262RC311	PECKER	-	WCCD	••			4
	1 SEE						
B271SC311	THREE	-	ELEVEN	IS	A		1
B271SC311	WCCDPECKER		••				2
	1 SEE						
B281RC311	THREE	-	ELEVEN	IS	A		1
B281RC311	RED		HEAD	BIRD	THAT		1
B281RC311	PECKS		HOLES	IN	TREES		2
B281RC311	••						3
	1 SEE						
B291GC311	THREE	-	ELEVEN	IS	A		1
B291GC311	RED		HEADED	PECKER	- WOOD		2
B291GC311	CN		A	TREE	•		3
B291GC311	I		CCN/T	KNOW	WHAT		4
B291GC311	KIND		OF	TREE	••		5
	1 SEE						
B292GC311	THREE	-	ELEVEN	WCCDPECKER	WITH		1
B292GC311	RED		HEAD	CN	A		2
B292GC311	TREE		••				3
C311			ITEM-END				

CC34			SYN	SYNTAX		1
QUEEN						
A011S0034	1 SEE		01004			
A011S0034	QUEEN		•	CROWN	••	1
	1 SEE					
A021S0034	THIRTY	-	FOUR	QUEEN	•	1
A021S0034	CROWN		•	ROBE	••	2
	1 SEE					
A031S0034	THIRTY	-	FOUR	A	QUEEN	1
A031S0034	I		PRESUME	•	THAT/S	2
A031S0034	THE					21
A031S0034	CROWN		•	ROBE	••	3
	1 SEE					
A041S0034	THIRTY	-	FOUR	IS	A	1
A041S0034	QUEEN		•	I	SUPPOSE	2
A041S0034	•		CROWN	•	ROBE	3
A041S0034	••					4
	1 SEE					
A042W0034	THIRTY	-	FOUR	LOOKS	LIKE	1
A042W0034	A		QUEEN	AND	A	2
A042W0034	CROWN		OR	A	CORONET	3
A042W0034	•		THIS	MUST	BE	4
A042W0034	AN		ERMINE	COLLAR	••	5
	1 SEE					
A051S0034	THIRTY	-	FOUR	A	QUEEN	1
A051S0034	•		HINTQ	•	A	11
A051S0034	CROWN		••			2
	1 SEE					
A061E0034	THIRTY	-	FOUR	IS	A	1
A061E0034	QUEEN		••			2
	1 SEE					
A071R0034	HINTQ		•	CROWN	•	1
A071R0034	YES		A	QUEEN	••	2
	1 SEE					
A081N0034	THIRTY	-	FOUR	A	QUEEN	1
A081N0034	••					2
	1 SEE					
A082G0034			QUEEN	••		1
	1 SEE					
A091N0034	THIRTY	-	FOUR	A	QUEEN	1
A091N0034	••					2
	1 SEE					
A101G0034			A	QUEEN	WITH	1
A101G0034	HER		BAND	••		2
	1 SEE					
A102G0034	THIRTY	-	FOUR	MUST	BE	1
A102G0034	THE		QUEEN	••		2
	1 SEE					
A111N0034	THIRTY	-	FOUR	QUEEN	••	1
	1 SEE					

A112GC034	THIRTY	-	FOUR	A	LADY	1
A112GC034	••					2
	1 SEE					
A121RC034	THIRTY	-	FOUR	IS	A	1
A121RC034	QUEEN		••			2
	1 SEE					
A131XC034	THIRTY	-	FOUR	THE	QUEEN	1
A131XC034	AND		THE	CROWN	AND	2
A131XC034	THE		ERMINE	••		3
	1 SEE					
B201XC034	THIRTY	-	FOUR	THERE/S	A	1
B201XC034	QUEEN		•	SHE	HAS	2
B201XC034	THE		CROWN	••		3
	1 SEE					
B211SC034	THIRTY	-	FOUR	A	KING	1
B211SC034	•		A	PRINCE		11
B211SC034	I		THINK	•	HINTQ	2
B211SC034	•		HIS			21
B211SC034	CROWN		••			3
	1 SEE					
B221NC034	OMIS					1
B221NC034	NUMBER		THIRTY	- FOUR	IS	11
B221NC034	A		QUEEN	WITH	A	2
B221NC034	QUEEN*S		REGALIA	AND	ALL	3
B221NC034	ON		HER	HEAD	••	4
	1 SEE					
B231RC034	THIRTY	-	FOUR	IS	A	1
B231RC034	QUEEN		••			2
	1 SEE					
B241NC034	THIRTY	-	FOUR	IS	A	1
B241NC034	QUEEN		WITH	A	CROWN	2
B241NC034	••					3
	1 SEE					
B242NC034	THIRTY	-	FOUR	IS	A	1
B242NC034	QUEEN		WITH	A	CROWN	2
B242NC034	••					3
	1 SEE					
B243NC034	OMIS					
B243NC034	NUMBER		THIRTY	- FOUR	IS	11
B243NC034	A		QUEEN	WITH	A	2
B243NC034	CROWN		CN	••		3
	1 SEE					
B244NC034	THIRTY	-	FOUR	IS	A	1
B244NC034	QUEEN		WITH	A	CROWN	2
B244NC034	••					3
	1 SEE					
B251NC034	THIRTY	-	FOUR	IS	A	1
B251NC034	CROWN		•	THAT/S	A	2
B251NC034	CROWNED		PERSON	•	MAY	3
B251NC034	BE		A	QUEEN	••	4

	1 SEE						
B252N0034	THIRTY	-	FCUR		THE	QUEEN	1
B252N0C34	•		SHE		SEEMS	TO	2
B252N0034	BE		TRCUBLED		TCO	•	3
B252N0C34	WITH		THE				31
B252N0034	CRCWN		CN		HER	HEAD	4
B252N0034	AND		THE		ERMINE	••	5
	1 SEE						
B261W0C34	THIRTY	-	FCUR		A	QUEEN	1
B261W0034	••						2
	1 SEE						
B262R0034	THIRTY	-	FCUR		IS	•	1
B262R0034	I/M		GCING		TO	SAY	2
B262R0034	QUEEN		ELIZABETH		••		3
	1 SEE						
B271S0034	THIRTY	-	FOUR		IS	THE	1
B271S0034	QUEEN		•		A		11
B271S0034	CRCWN		•		HINTQ	•	2
B271S0C34	THAT/S		A		COLLAR	TO	21
B271S0034	HER		RCBE		••		3
	1 SEE						
B281R0034	THIRTY	-	FCUR		IS	A	1
B281R0034	CROWNED		QUEEN		••		2
	1 SEE						
B291G0C34	THIRTY	-	FCUR		A	QUEEN	1
B291G0C34	WITH		CRCWN		AND	SO	2
B291G0034	FORTH		••				3
	1 SEE						
B292G0034	OMIS		DCN/T		KNOW		1
B292G0034	WHAT		THIRTY	-	FOUR	IS	2
B292G0034	••						3
0034			ITEM-END				

1903 SYN SYNTAX

A5	A4	A3	A2	A1	BASE	C1	C2	C3	C4	C5
A	NINETEEN	CH	THREE	A	BEAR	AND	A	HORNET*S	NEST	WITH
A ONE	THOUSAND	NINE	HUNDRED	THREE	BEARS	STEALING	HONEY	FROM	A	BEEHIVE
A NINETEEN	CH	THREE	IS	A	BEAR	AND	HER	CUB	WHICH	ARE
A	NINETEEN	CH	THREE	IS	BEARS	AFTER	BEES	THE	MOTHER	BEAK
A NINETEEN	CH	THREE	IS	A	BEAR	TRYING	TO	GET	SOME	HONEY
A OH	THREE	IS	A	BIG	BEAR	AND	A	SMALL	BEAR	.....
A OH	THREE	IS	AN	OLD	BEAR	INTO	A	WASP*S	NEST	OR
A	.....	.....	.....	.....	BEAR	BABY	BEAR	THAT/S	THE	HORNET*S
A OH	THREE	IS	A	BIG	BEAR	AFTER	THE	HORNET*S	NEST	HORNETS
A	.....	.....	THAT/S	A	BEAR	IT/S	CATCHING	HONEY	IT/S	INTO
A	.....	.....	.....	A	BEAR	GETTING	HONEY	FROM	THE	BEES
A	NINETEEN	THREE	IS	A	BEAR	TRYING	TO	GET	SOME	AND
A	NINETEEN	CH	THREE	A	BEAR	WITH	THE	CUB	ROBBING	THE
A	.....	.....	.....	PIGS	BEARS	IN	A	BEEHIVE	.....	.....
A	NINETEEN	CH	THREE	TWO	BEARS	ONE	BEAR	TRYING	TO	GET
A NINETEEN	CH	THREE	IS	THE	BEAR	WITH	HER	CUB	AND	THEY
B	NINETEEN	CH	THREE	A	BEAR	AND	A	CUB	BEAR	THE
B	NINETEEN	CH	THREE	SOME	BEARS	ROBBING	A	BEEHIVE	MOTHER	BEAR
B HUNDRED	AND	THREE	IS	A	BEAR	CLIMBING	UP	HE	THINKS	HE/S
B	.....	NINETEEN	CH	THREE	BEAR	ROBBING	HORNET*S	NEST	.....	.....
B	ONE	NINE	CH	THREE	BEARS	STANDING	UNDER	THE	TREE	EATING
B THREE	IS	A	BIG	TALL	BEAR	AND	A	SMALL	BEAR	AND
B WE	HAVE	A	COUPLE	OF	BEAR	ONE	OF	THEM	HAS	FOUND
B NINETEEN	CH	THREE	IS	TWO	BEARS	ONE	OF	THEM	IS	BREAKING
B NINETEEN	CH	THREE	IS	TWO	BEARS	THE	BIG	BEAR	IS	GOING
B	NINETEEN	CH	THREE	PAPA	BEAR	AND	A	MAMA	BEAR	GETTING
B	NINETEEN	OH	THREE	TWO	BEARS	ONE	IS	DISTURBING	THE	BEEHIVE
B	.....	.....	THAT/S	A	BEAR	WITH	A	BEEHIVE	.....	.....
B NINETEEN	CH	THREE	IS	A	BEAR	IN	THE	HONEY	CUB	BEAR
B NINETEEN	CH	THREE	IS	A	BEAR	TEARING	DOWN	A	HORNET*S	NEST
B NINETEEN	CH	THREE	IS	TWO	BEARS	ONE	OF	THEM	GETTING	HONEY
B	NINETEEN	CH	THREE	BIG	BEAR	AND	A	LITTLE	BEAR	LOOKING

	A5	A4	A3	A2	A1	BASE	C1	C2	C3	C4	C5
A	.....	.....	.....	THREE	ELEVEN	WOODPECKER	.....	.....	.....	.....	.....
A	THREE	HUNDRED	ELEVEN	RED	HEADED	WOODPECKER	.....	.....	.....	.....	.....
A	.....	.....	.....	THREE	ELEVEN	WOODPECKER	RED	HEADED	WOODPECKER	.....	.....
A	.....	THREE	ELEVEN	IS	A	BIRD	A	WOODPECKER	NOW	ALL	MY
A	ELEVEN	IS	A	RED	HEADED	WOODPECKER	.....	.....	.....	.....	.....
A	ELEVEN	IS	A	RED	HEADED	WOODPECKER	.....	.....	.....	.....	.....
A	HUNDRED	AND	ELEVEN	IS	A	BIRD	ASITTING	ON	A	LOG	AND
A	.....	.....	.....	.....	PECKER	WOOD	.....	.....	.....	.....	.....
A	.....	THREE	ELEVEN	IS	THE	WOODPECKER	ON	THIS	LIMB	.....	.....
A	.....	.....	.....	.....	PECKER	WOOD	.....	.....	.....	.....	.....
A	IS	A	RED	HEAD	PECKER	WOOD	.....	.....	.....	.....	.....
A	.....	.....	THAT/S	A	PECKER	WOOD	RED	HEADED	BIRD	.....	.....
A	IS	A	RED	HEADED	PECKER	WOOD	.....	.....	.....	.....	.....
A	.....	.....	THREE	ELEVEN	A	WOODPECKER	.....	.....	.....	.....	.....
A	.....	.....	.....	.....	.....	BIRD	ON	A	LIMB	OF	A
A	IS	A	RED	HEADED	PECKER	WOOD	.....	.....	.....	.....	.....
A	ELEVEN	IS	A	RED	HEADED	WOODPECKER	.....	.....	.....	.....	.....
B	THREE	ELEVEN	THAT/S	A	LITTLE	BIRD	A	LITTLE	SAPSUCKER	A	LITTLE
B	.....	.....	THREE	ELEVEN	A	WOODPECKER	.....	.....	.....	.....	.....
B	IS	A	RED	HEAD	PECKER	WOOD	.....	.....	.....	.....	.....
B	.....	THREE	ELEVEN	IS	A	WOODPECKER	RED	WHITE	AND	BLUE	.....
B	AND	ELEVEN	RED	HEAD	PECKER	WOOD	.....	.....	.....	.....	.....
B	IS	A	RED	HEADED	PECKER	WOOD	ON	A	LIMB	OAK	TREE
B	FIVE	ELEVEN	A	RED	HEADED	WOODPECKER	.....	.....	.....	.....	.....
B	IS	A	RED	HEADED	PECKER	WOOD	.....	.....	.....	.....	.....
B	.....	THREE	ELEVEN	IS	A	BIRD	IT	MUST	BE	A	WOODPECKER
B	DON/T	KNOW	MY	BIRDS	BLUEJAY	WOODPECKER	ON	A	LIMB	.....	.....
B	.....	.....	THREE	ELEVEN	A	WOODPECKER	.....	.....	.....	.....	.....
B	.....	THIS	IS	A	PECKER	WOOD	BIRD	I	BELIEVE	WE	CALL
B	.....	THREE	ELEVEN	IS	A	WOODPECKER	.....	.....	.....	.....	.....
B	ELEVEN	IS	A	RED	HEAD	BIRD	THAT	PECKS	HOLES	IN	TREES
B	IS	A	RED	HEADED	PECKER	WOOD	ON	A	TREE	I	DON/T
B	.....	.....	.....	THREE	ELEVEN	WOODPECKER	WITH	RED	HEAD	ON	A

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	A5	A4	A3	A2	A1	BASE	C1	C2	C3	C4	C5
A	BEING	HELD	UP	BY	THIS	ROBBER	HERE	HE	HAS	A	GUN
A	THOUSAND	EIGHT	SIX	HOLDUP	A	ROBBER	IS	EITHER	HOLDING	UP	A
A	WITH	THE	FORCE	OF	A	GUN	AND	EVIDENTLY	THE	MAN	IS
A	DURING	THE	NIGHT	THE	GETAWAY	CAR	I	SUPPOSE	JUST	A	HANDKERCHI
A	OVER	HIS	FACE	LIKE	A	MASK	WITH	A	PISTOL	POINTED	UP
A	EIGHTY	EIGHTY	SIX	IS	A	ROBBER	AT	NIGHT	WHO	IS	HOLDING
A	EIGHT	SIX	THERE	IS	A	MAN	HOLDING	ANOTHER	MAN	AND	GOT
A	THE	BACK	END	OF	THE	CAR	OH	YES	NEW	MOON	.....
A	STARS	AND	I	GUESS	THIS	MAN	IS	HOLDING	THIS	OTHER	MAN
A	AGAIN	AND	THE	STARS	A	MAN	WITH	A	MASK	ON	AND
A	ONE	UP	HE	HAS	HIS	GUN	THE	OTHER	MAN'S	HAT	HAS
A	OF	A	HOLDUP	IT/S	A	MAN	HE	HAS	A	SCARF	AND
A	SIX	WE	GOT	A	HOLDUP	MAN	GOT	A	GUN	DRAWED	ON
A	TELLS	TO	ME	THAT	THE	ROBBER	IS	THE	DRIVER	AND	OWNER
A	.....	.....	.....	.....	.....	ROBBER	ROBBING	A	MAN	BY	MOONLIGHT
A	SIX	A	HOLDUP	AT	NIGHT	MAN	WITH	A	MASK	OVER	HIM
A	GOT	HIM	CUT	OF	HIS	CAR	AND	HIS	HAT/S	BEEN	KNOCKED
B	THERE/S	A	DESPERADO	THAT/S	A	ROBBER	HE/S	GOT	HIS	FACE	MASKED
B	HOLDING	THIS	ONE	UP	A	MASK	A	GUN	HE	HAS	HIM
B	TO	BE	A	BANDIT	A	ROBBER	THAT	IS	ATTACKING	THE	MAN
B	EIGHTY	SIX	BANDIT	HOLDING	UP	MAN	.....	.....	.....	.....	.....
B	SIX	A	BANDIT	WITH	A	MASK	AND	PISTOL	HOLDING	UP	A
B	A	HOLDUP	SCENE	THE	HOLDUP	MAN	HAS	A	BANDANA	OVER	HALF
B	BE	A	KIND	OF	HOLDUP	MAN	HAS	GOT	A	MASK	OVER
B	AND	IT/S	A	HOLDUP	A	MAN	WITH	A	MASK	AND	HIS
B	IS	A	HOLDUP	A	MASKED	MAN	HAS	ANOTHER	MAN	BY	THE
B	BRIGHT	AND	THERE	IS	A	CAR	WAITING	FOR	THE	GETAWAY	.....
B	EIGHTY	SIX	A	HOLDUP	A	MAN	WITH	A	HANDKERCHIEF	OVER	HIS
B	.....	AND	HERE/S	THE	HOLDUP	MAN	HOLDING	UP	THIS	MAN	TRYING
B	IS	A	HOLDUP	GOT	A	MAN	HAS	GOT	A	GUN	MASK
B	OCCURRED	BACK	ON	THE	HIGHWAY	MAN	WITH	A	MASK	OVER	HIS
B	IS	AN	AUTOMOBILE	THERE	A	MAN	HAS	A	MASK	OVER	HIS
B	HAVE	GOTTEN	OUT	OF	HIS	CAR	AND	THE	MAN/S	HOLDING	HIM

A5	A4	A3	A2	A1	BASE	C1	C2	C3	C4	C5
A	.....	.....	.....	.....	QUEEN	CROWN	.....	.....	.....	.....
A	.....	.....	THIRTY	FOUR	QUEEN	CROWN	ROBE	.....	.....	.....
A	.....	THIRTY	FOUR	A	QUEEN	I	PRESUME	THAT/S	THE	CROWN
A	THIRTY	FOUR	IS	A	QUEEN	I	SUPPOSE	CROWN	ROBE	.....
A THIRTY	FOUR	LOOKS	LIKE	A	QUEEN	AND	A	CROWN	OR	A
A	.....	THIRTY	FOUR	A	QUEEN	A	CROWN	.....	.....	.....
A	THIRTY	FOUR	IS	A	QUEEN	.....	.....	.....	.....	.....
A	.....	CROWN	YES	A	QUEEN	.....	.....	.....	.....	.....
A	.....	THIRTY	FOUR	A	QUEEN	.....	.....	.....	.....	.....
A	.....	.....	.....	.....	QUEEN	.....	.....	.....	.....	.....
A	.....	THIRTY	FOUR	A	QUEEN	.....	.....	.....	.....	.....
A	.....	.....	.....	A	QUEEN	.....	.....	.....	.....	.....
A THIRTY	FOUR	MUST	BE	A	QUEEN	WITH	HER	BAND	.....	.....
A	.....	.....	THIRTY	THE	QUEEN	.....	.....	.....	.....	.....
A	THIRTY	FOUR	IS	FOUR	QUEEN	.....	.....	.....	.....	.....
A	.....	THIRTY	FOUR	A	QUEEN	.....	.....	.....	.....	.....
A	.....	.....	.....	THE	QUEEN	AND	THE	CROWN	AND	THE
B	THIRTY	FOUR	THERE/S	A	QUEEN	SHE	HAS	THE	CROWN	.....
B NUMBER	THIRTY	FOUR	IS	A	QUEEN	WITH	A	QUEEN*S	REGALIA	AND
B	THIRTY	FOUR	IS	A	QUEEN	.....	.....	.....	.....	.....
B	THIRTY	FOUR	IS	A	QUEEN	WITH	A	CROWN	.....	.....
B	THIRTY	FOUR	IS	A	QUEEN	WITH	A	CROWN	.....	.....
B NUMBER	THIRTY	FOUR	IS	A	QUEEN	WITH	A	CROWN	ON	.....
B	THIRTY	FOUR	IS	A	QUEEN	WITH	A	CROWN	.....	.....
B CROWNED	PERSON	MAY	BE	A	QUEEN	.....	.....	.....	.....	.....
B	.....	THIRTY	FOUR	THE	QUEEN	SHE	SEEMS	TO	BE	TROUBLED
B	.....	THIRTY	FOUR	A	QUEEN	.....	.....	.....	.....	.....
B IS	I/M	GOING	TO	SAY	QUEEN	ELIZABETH	.....	.....	.....	.....
B	THIRTY	FOUR	IS	THE	QUEEN	A	CROWN	THAT/S	A	COLLAR
B THIRTY	FOUR	IS	A	CROWNED	QUEEN	.....	.....	.....	.....	.....
B	.....	THIRTY	FOUR	A	QUEEN	WITH	CROWN	AND	SO	FORTH

CODE - T (CONTD)
REF. PAGE 11

	A5	A4	A3	A2	A1	C1	C2	C3	C4	C5
A'S	1 50.0	4 40.0	1 25.0	2 33.4	9 50.0	1 50.0	6 50.0	2 40.0	2 66.7	1 33.4
B'S	1 50.0	6 60.0	3 75.0	4 66.6	9 50.0	1 50.0	6 50.0	3 60.0	1 33.3	2 66.6
TOT	2	10	4	6	18	2	12	5	3	3

CODE - Q
REF. PAGE 11

2(A) - 3 6(A) - 3 7(A) - 3 9(A) - 1 11(A) - 1 13(A) - 1 16(A) - 1 21(B) - 2
22(B) - 1 23(B) - 1 26(B) - 1 28(B) - 2

	A5	A4	A3	A2	A1	C1	C2	C3	C4	C5
A'S	5 62.5	3 60.0	2 100.0	.0	.0	.0	2 66.7	.0	1 100.0	.0
B'S	3 37.5	2 40.0	.0	.0	.0	.0	1 33.3	.0	.0	1 100.0
TOT	8	5	2				3		1	1

CODE - C-Q
REF. PAGE 11

2(A) - 1

	A5	A4	A3	A2	A1	C1	C2	C3	C4	C5
A'S	.0	.0	.0	.0	.0	.0	1 100.0	.0	.0	.0
B'S	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT							1			

CODE - C
REF. PAGE 11

3(A) - 1 7(A) - 1 9(A) - 1 10(A) - 2 12(A) - 1 14(A) - 1 17(A) - 1 22(B) - 1
25(B) - 2 27(B) - 1 29(B) - 1 33(B) - 1

	A5	A4	A3	A2	A1	C1	C2	C3	C4	C5
A'S	.0	2 50.0	.0	.0	.0	2 50.0	.0	.0	2 66.7	2 100.0
B'S	1 100.0	2 50.0	.0	.0	.0	2 50.0	.0	.0	1 33.3	.0
TOT	1	4				4			3	2

CODE - O-V-O
REF. PAGE 11

5(A) - 1

	A5	A4	A3	A2	A1	C1	C2	C3	C4	C5
A'S	.0	.0	.0	1 100.0	.0	.0	.0	.0	.0	.0
B'S	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT				1						

CODE - O
REF. PAGE 11

1(A) - 2	2(A) - 1	3(A) - 2	4(A) - 1	5(A) - 3	6(A) - 1	8(A) - 1	10(A) - 2		
11(A) - 1	12(A) - 1	13(A) - 1	14(A) - 1	15(A) - 1	16(A) - 3	17(A) - 2	19(B) - 1		
20(B) - 1	21(B) - 1	22(B) - 2	23(B) - 1	24(B) - 2	25(B) - 1	26(B) - 1	27(B) - 1		
28(B) - 2	29(B) - 1	31(B) - 3	32(B) - 1	33(B) - 2					

	A5	A4	A3	A2	A1	C1	C2	C3	C4	C5
A'S	4 80.0	2 100.0	2 50.0	5 55.6	.0	4 57.2	.0	.0	4 40.0	2 66.7
B'S	1 20.0	.0	2 50.0	4 44.4	1 100.0	3 42.8	2 100.0	.0	6 60.0	1 33.3
TOT	5	2	4	9	1	7	2		10	3

CODE - P
REF. PAGE 11

1(A) - 2	4(A) - 1	5(A) - 1	9(A) - 3	11(A) - 2	12(A) - 1	13(A) - 1	14(A) - 1		
16(A) - 1	17(A) - 3	18(B) - 1	19(B) - 3	25(B) - 1	28(B) - 1	29(B) - 1	31(B) - 1		
32(B) - 1	33(B) - 2								

	A5	A4	A3	A2	A1	C1	C2	C3	C4	C5
A'S	.0	3 75.0	1 100.0	.0	4 80.0	2 100.0	2 100.0	1 25.0	.0	1 14.3
B'S	.0	1 25.0	.0	.0	1 20.0	.0	.0	3 75.0	.0	6 85.7
TOT		4	3		5	2	2	4		7

CODE - D
REF. PAGE 11

1(A) - 1	4(A) - 1	10(A) - 1

	A5	A4	A3	A2	A1	C1	C2	C3	C4	C5
A'S	1 100.0	.0	.0	.0	.0	1 100.0	.0	1 100.0	.0	.0
B'S	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT	1					1		1		

CODE - X
REF. PAGE 11

1(A) - 1	2(A) - 1	3(A) - 1	6(A) - 2	7(A) - 1	9(A) - 1	11(A) - 2	12(A) - 1		
14(A) - 1	17(A) - 1	19(B) - 1	20(B) - 2	23(B) - 1	24(B) - 2	26(B) - 2	27(B) - 1		
30(B) - 2	32(B) - 2	33(B) - 1							

	A5	A4	A3	A2	A1	C1	C2	C3	C4	C5
A'S	.0	.0	.0	3 75.0	.0	3 37.5	1 50.0	1 100.0	2 66.7	2 100.0
B'S	5 100.0	1 100.0	.0	1 25.0	.0	5 62.5	1 50.0	.0	1 33.3	.0
TOT	5	1		4		8	2	1	3	2

CODE - T
REF. PAGE 11

1(A) - 1	2(A) - 2	3(A) - 3	4(A) - 3	5(A) - 2	6(A) - 1	7(A) - 1	8(A) - 2	
10(A) - 3	11(A) - 1	12(A) -	13(A) - 2	14(A) - 2	15(A) - 1	16(A) - 2	18(B) - 2	
19(B) - 2	20(B) - 3	22(B) - 3	23(B) - 3	24(B) - 2	25(B) - 3	26(B) - 3	27(B) - 2	
28(B) - 3	29(B) - 1	30(B) - 3	31(B) - 2	32(B) - 3	33(B) - 1			

CODE - R
REF. PAGE 11

6(A) - 1

	A5	A4	A3	A2	A1	C1	C2	C3	C4	C5
A'S	.0	.0	.0	.0	.0	.0	.0	1 100.0	.0	.0
B'S	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT								1		

CODE - P-D
REF. PAGE 11

7(A) - 1 27(B) - 1 32(B) - 1

	A5	A4	A3	A2	A1	C1	C2	C3	C4	C5
A'S	.0	.0	1 50.0	.0	.0	.0	.0	.0	.0	.0
B'S	.0	.0	1 50.0	1 100.0	.0	.0	.0	.0	.0	.0
TOT			2	1						

CODE - O-N
REF. PAGE 11

8(A) - 1 31(B) - 1

	A5	A4	A3	A2	A1	C1	C2	C3	C4	C5
A'S	.0	1 50.0	.0	.0	.0	.0	.0	.0	.0	.0
B'S	.0	1 50.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT		2								

CODE - P-C
REF. PAGE 11

11(A) - 1 19(B) - 1

	A5	A4	A3	A2	A1	C1	C2	C3	C4	C5
A'S	1 100.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
B'S	.0	.0	1 100.0	.0	.0	.0	.0	.0	.0	.0
TOT	1		1							

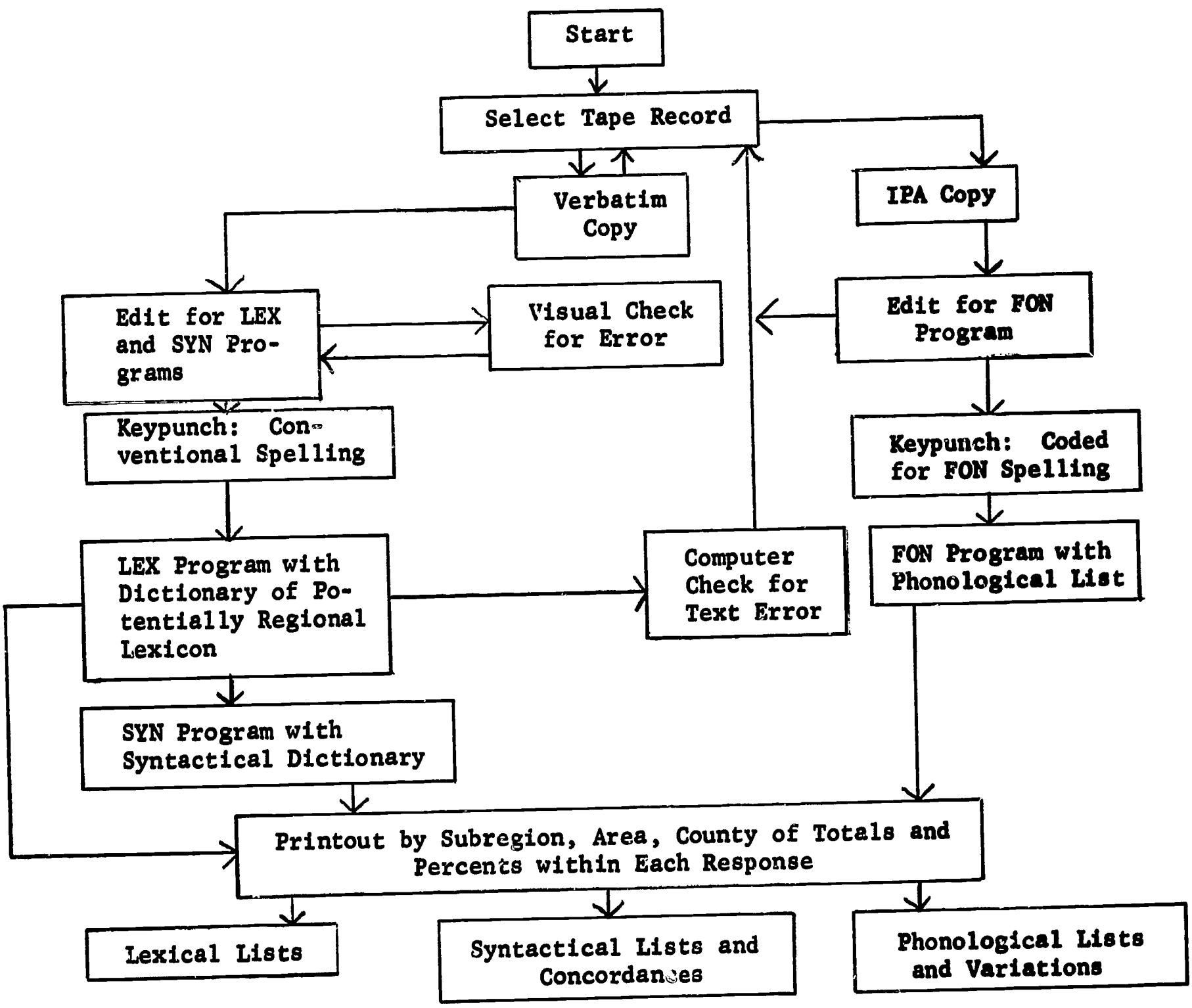
CODE - P-A
REF. PAGE 11

14(A) - 1 20(B) - 1

	A5	A4	A3	A2	A1	C1	C2	C3	C4	C5
A'S	.0	.0	.0	1 100.0	.0	.0	.0	.0	.0	.0
B'S	.0	.0	.0	.0	.0	1 100.0	.0	.0	.0	.0
TOT				1		1				

A121RC112	THAT		A		LEOPARD		..		2
B2C1XC112	ONE	-	TWELVE		THAT/S		TOO		1
B2C1XC112	BIG		FOR		A		HOUSE	-	2
B2C1XC112	CAT		.		IT		WOULD		3
B2C1XC112	BE		TOO		LARGE		FOR		4
B2C1XC112	A		HOUSE	-	CAT		SO		41
B2C1XC112	I		GUESS		THAT/S		A		5
B2C1XC112	WILD	-	CAT		..				6
B241NC112	HUNDRED	-	AND	-	TWELVE		IS		1
B241NC112	A		ZEBRA		..				2
AC82GC179			MAN		WITH		HIS		1
AC82GC179	.		IS		THAT		A		11
AC82GC179	PISTOL		.		AND		A		2
AC82GC179	PISTOL		IN		HIS		HAND		21
AC82GC179	..								3
B243NC179	OMIS								1
B243NC179	NUMBER		ONE	-	SEVENTY	-	NINE		11
B243NC179	SEEMS		TO		BE		A		2
B243NC179	OLD		TIME		HIGHWAY	-			30
B243NC179	PATROLMAN		AND		HE/S		HOLLERING		40
B243NC179	STOP		..						51
B211SC225	TWO	-	TWENTY	-	FIVE		THAT/S		1
B211SC225	JUST		FLOWERS						11
B211SC225	.		HINTS		.		LILIES		2
B211SC225	..								3
B231RC225	TWO	-	TWENTY	-	FIVE		LOOKS		1
B231RC225	TO		ME		AS		IF		2
B231RC225	IT/S		A		FLOWER		WHAT		3
B231RC225	I		CALL		A		HYACINTH		4
B231RC225	I		WOULDN/T		SAY		WHETHER		5
B231RC225	THAT/S		RIGHT		OR		WRONG		6
B231RC225	..								7
B243NC225	TWO	-	TWENTY	-	SIX		MY		1
B243NC225	EYE/S		NOT		GOOD		ENOUGH		2
B243NC225	TO		TELL		ME		WHAT		3
B243NC225	THIS		IS		..				4
B251NC225	TWO	-	TWENTY	-	FIVE		IS		1
B251NC225	A		GLADIOLA		..				2
B252NC225	TWO	-	TWENTY	-	FIVE		TWO		1
B252NC225	IRISES		..						2

PROJECT #3046 FLOW CHART



LETTER CODES

IPA	Code	IPA	Code
i	I	d	D
ɪ	I*	p	P
e	E	b	B
ɛ	E*	t	T
a	A	k	K
æ	A*	g	G
o	O	f	F
ɔ	O*	v	V
ə	8	θ	Q
ʌ	X	ð	D*
		s	S
		z	Z
		ʃ	S*
		ʒ	Z*
		h	H
		tʃ	C*
		dʒ	J*
		m	M
		n	N
		ŋ	N*
		l	L
		w	W
		hw	H*
		j	Y
		r	R

CARD FORMAT

Field	Columns	Function
1	1-3	Code for area and locality
	4	Person Code
	5-8	Picture identification number
2	9-12	Program instruction code
3, 4, 5, 6	13-24, 29-40, 45-56, 61-72	Text word fields, maximum word length 12 characters
7	77-80	Card sequence number

SPECIAL ENTRIES

LEX	Begin lexicon program
SYN	Begin grammar and syntax program
FON	Begin phonology program
ITEM-END	End of data for item as numbered
HINTQ	Interviewer gave interviewed a hint in the form of a question
HINTW	Interviewer named the word being sought
/	Apostrophe equivalent in verbs
*	Apostrophe equivalent in nouns
.	Single period to prevent misreading
..	Double period to show end of a speaker's complete statement

PROGRAMS

LEX & FON	Fortran II
SYN	Autocoder

COMPUTERS USED

IBM 1401, 1620 and supporting equipment

DATA RECORD

Card decks
Summaries and lists (examples in Appendix B)

ERRATA

Page	In place of	Read
8	since, punctuation	punched, since punctuation
9	10. P. Stockwell	10. Robert P. Stockwell
13	the test printed by	the text printed by
14	Revolution ;	Revolution .
17	the word in question	one of the words in question
19	and twelve	and twelve
21	vocabulary had a common	vocabulary has a common
28	The /i/ in checked vowel	The /i/ in the checked vowel
34	assum that	assume that
37	Qr, to take	Or , to take
40	queen the ration is	queen the ratio is
42	going, eating getting ,	going , eating , getting ,
50	James M.	Joseph M.

SUB-REGIONAL SPEECH VARIATIONS IN VOCABULARY GRAMMAR AND PRONUNCIATION

Gordon Reid Wood

Southern Illinois University, Edwardsville, Illinois

Summary: Cooperative Research Project No. 3046

May 1966 to September 1967

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BACKGROUND

Selected American English spoken words and phrases were prepared for computer analysis according to lexical, phonological, and syntactical criteria in order to establish their prevalence and distribution in a sub-region of the southern United States. Lists, tabulations, and maps were produced in conjunction with a discussion of variation in natural language systems.

The importance of the problem to the field of education is that it adds specific evidence to the growing body of knowledge about American English as a language with three major spoken dialects, Northern, Midland, and Southern. As a statement of dissemination and gradience in three aspects of a language, it contributes to other evidence of the actualities in current English lexical, phonological, and grammatical usage. Finally, as a discussion of language analysis, it calls attention to opportunities

and problems arising in computational linguistics when the object of study is a spoken language. As a presentation of phonological, semantic analyses it contributes to current discussions of spoken sentences in studies of natural language by means of computational linguistics.

OBJECTIVES

The main objective is to make a computer analysis of elements of the English vocabulary, pronunciation, and sentence structure found in tape recorded speech of a sub-region. The data analyzed is a body of responses obtained in 1959 and 60 from 33 native informants from 23 counties in Tennessee, Georgia, Mississippi, and Alabama.

The main objective is subdivided into these parts:

1. What sentence responses occur in each county surveyed?

2. In these sentences what lexical and phonological systems have their counterparts in the regional systems reported for the Atlantic states?

3. What other items of lexical and phonological nature have distributions similar to those above?

4. What elements of a grammatical-syntactical subsystem can be identified by computer techniques?

5. From the resulting tabulations, what can we conclude about the stability and variation of the observed features of spoken English in the sub-region?

PROCEDURE

Steps leading to the present research need comment. In 1959 and 60 Wood selected persons from counties in Tennessee, Mississippi, Georgia, and Alabama who seemed to meet the established criteria for accepted linguistic informants. Those chosen were Caucasian, native born, ranging in age from 20 to over 60 years, male and female, and with formal education ranging from the early grades to post graduate study; no informant came from the uncultivated, rustic class (Group 1 of the Linguistic Atlas classification). Each person was asked to make a tape record of his responses to numbered pictures as the interviewer showed them to him. The pictures are those in Sapon's A Pictorial Linguistic Interview Manual (1957), augmented by Wood (1959); the instructions direct the informant to call the number of each picture and then, depending on the particular set, to give the name of a thing, comment on activities, or discuss the total situation depicted.

From the total collection 33 best tapes were selected and transcribed verbatim into regular English sentences. Shortened forms like "gonna" were expanded to "going to" contractions and possessives were punctuated as such, and normal conventions of spelling, capitalization, and punctuation were followed. (A phonetic transcription of selected words was made later.) Plans for computer analysis were also drawn up. The text would be punched on cards which would be handled by programs written in FORTRAN; later AUTOCODER also was used. The data cards

would have fields for the informant's county and locality, age and education, for the number of each picture, for four successive text words of no more than 12 characters each, and for sequence numbers applying to successive cards from the same informant's sentences.

The project research summarized here began with preparing data forms from the transcribed texts, the punching and correcting of data cards, and the running and redesign of the LEX (lexical) program. Charles L. Finke, a staff member of the Data Processing Center, Southern Illinois University, Edwardsville, designed, edited, and supervised the running of the lexical, phonological, and syntactical programs in conference with the chief investigator.

The preliminary text was altered in these ways for transcription and for punching on cards. (1) Lexical words were joined by a hyphen as in "two-hundred-and-three". (2) HINTW and HINTQ replaced all comments by the interviewer; when the interviewer had suggested a word, W was the signal added to HINT· when the hint was a question, Q was added. (3) Punctuation was reduced to a single period to prevent misreading the text of any printout, to a double period used as a signal to the computer that a given speaker had ended his comments, and to a slash and an asterisk, the first replacing an apostrophe in a contracted verb form, the second replacing it in a possessive noun form. No punctuation mark is intended to reflect phonological actuality in the taped text.

After the text of the data forms and the resulting cards had been compared with the original tape records, the LEX program was run as a final means of identifying card error. If error appeared, the faulty card was compared with the tape and corrected. If the text was satisfactory, then it was ready for the final run of both LEX and SYN (syntax) programs.

The LEX program searched the sentences for designated lexical words, identified them and tagged them according to person and county, listed and tabulated their occurrence, and prepared totals and percentages of occurrence in the northern and southern halves of this subregion, Area A and Area B respectively.

The decks of data cards were then sent through the SYN (grammar and syntax) program which selected the same general word that had been used in the LEX tabulations, placed it in a concordance format with the five adjacent words from each side of it in the sentence, and compared the entire eleven words with a stored dictionary of grammatically labeled entries from Lyle V. Jones and Joseph M. Wepman's A Spoken Word Count (1966). The county and area tabulations of grammatical form by sentence position are given in detail later in this summary. It is sufficient to note here that a syntactical word could be a part of a lexical word; "worm", for instance,would be the syntactical base word in a body of sentences which contained the lexical words "fishing-worm", "red-worm", "catalpa-worm", and "worm."

The text for the FON (phonological) program differed from that of the other two in this respect: it represented a phonetic transcription of the specific words which were being tabulated above and of some other words which had sounds not found in the lexical entries. The first transcription from the tapes was a narrow one which employed the symbols of the International Phonetic Alphabet. These symbols were then equated with the upper case characters of the computer print chain; when there was no corresponding letter, modifications were made by adding a star or by substituting a numeral. For simplicity in programming the narrow original transcription was replaced by a broad one when the words were put on data forms for card punching.

The FON program selected specific vowel, dipthong, and consonant symbols from the coded words, classified them according to the grid pattern in Hans Kurath and Raven I. McDavid, Jr., The Pronunciation of English in the Atlantic States (1961), tabulated the responses by county and area, and prepared totals and percentages similar to those in the other two programs.

From these computer tabulations thirteen composite tables and nine maps were prepared. The tables show county by county the distribution of a list of words, a list of stressed vowels and dipthongs in their individual phonological settings, and a summary of grammatical variables according to sentence position. The maps show areas of greatest density for selected features from the tables themselves and provide a means for the reader to map additional details for himself.

RESULTS AND CONCLUSIONS

1. The first general product of the computer study is a deck of data cards for the FON program and for the LEX-SYN programs. From the latter is derived a sentence by sentence printout, a localized listing of sentences containing 15,600 text words in all.

2.1. From the total running text the LEX program identified these words and their synonyms for county by county tabulation: "stove", "towels", "queen", "fly swatter", "door", "beard", "bone", "tiger", "cross", "faucet", "automobile", "turtle", "iris", "woodpecker", "grasshopper", "dragon fly", "wrench", "wrestling", "june bug", "lightning bug", "nest", "barbed wire fence", "worm", "hog", "bear", "salt and pepper shakers", and "boy". To these are added the variant names of the numbers 108, 112, 118, 135, 196, 213, 225, 311, 433, 464, 466, 570, 587, 680, 699, 851, 945, 1792, 1903, 4203, 6055, 8086.

That the lexical choice is noun (or nominal) centered is inevitable in a study that elicits its responses from pictures and seeks to compare those responses county by county.

2.2. Using words that have a known regional distribution outside the sub-region under study, we established that a few words of Ohio and Pennsylvania origin occur in counties along the Tennessee River, e.g. "wood rack", "fire fly", "fishing worm", and "zig zag fence"; and that another small body of words of Southern origin occur mainly in southeastern Alabama. "Mosquito hawk" (for dragon fly) is in Crenshaw and

Houston counties "earthworm", 'eel worm' and "catalpa worm" are in the counties immediately adjacent: "gopher" (for land turtle) and "wood bench" (for a saw horse) are in the same counties. The most widespread regional words are from Midland and South Midland origins: for "rail fence" 10 instances are reported from Area A (the counties along the Tennessee River) and 11 for Area B (the counties of central and south Alabama). For "peckerwood" (a variant of woodpecker), there are 8 and 7 instances in the same respective areas· for "red worm" 14 and 4; for "snake feeder" and "snake doctor' (synonyms of dragon fly) there are 5 and 0, and 6 and 4 respectively; for "faucet" 12 and 8 and for its synonym, "spigot", 3 and 4.

2.3. The conclusion from this evedence is that Midland has the greatest dissemination in the sub-region and that Southern is only slightly represented. In terms of areas of concentration, the Midland follows the Tennessee and extends southward into most counties. Its presence is considerable in Montgomery county, one of the counties from which Southern features have been reported. In this present dissemination, Midland regional lexicon seems to be favored over Southern.

2.4. In calling numbers above 100, speakers have these preferences: when the number lies between 100 and 199, they usually omit "one" and reduce "and" to /n/. When it lies between 200 and 999, they call it as a set of two numbers without a connection "and". Specific instances will make this and lesser practices clear: the usual lexical names of 112 and 311 are "hundred and twelve" and "three eleven"; rarer are "one hundred and twelve", "three hundred and eleven"; almost unique are strings like "three one two". Numbers containing a zero: "three oh seven" for 307. When the number exceeds 1,000, speakers regularly reduce the number to smaller units and name these units: 6055, for example, is "sixty fifty five".

2.5. Density patterns show that the numeral vocabulary has certain geographic distributions in common with identifiable regional words already mapped. Number strings like "three eleven" have their densities in counties which report a comparable density of Midland words such as "red worm". Similarly the "and" reduced to /n/ has one of its concentrations in the southeastern counties of Alabama which do not correspond to those of the identified regional lexicon, a matter which is common in linguistic geography of more stable dialect areas in North America.

2.6. Gradation in choice of lexicon and in the geographic distribution of that choice has been influenced by a variety of things. The Americanism "rail fence" and its synonyms was disseminated by the westward advance of English speaking settlements after the Revolution. With the advent of industrialization, commercial names go everywhere with the product; the introduction of barbed wire produces the expected "barbed wire fence". If a manufactured thing goes out of use, the accompanying lexicon may become obsolescent; "ice tongs" and "ice hooks" have disappeared along with the ice man who formerly carried blocks of ice into the home.

2.7. The lexical system in this sub-region is marked by gradation in the occurrence of nouns and nominal constructions. Geographically the range is from words reported by most speakers in all counties to that of a single county report by one speaker. Axes of similarity in word choice link Area A with Area B, indicating a dissemination of Midland vocabulary into a Southern region, the main direction of linguistic drift; and a less dynamic intrusion of Southern words and words of similar distribution into the Midland region. While the lexicon is generally stable within this sub-region, there is evidence of obsolence and innovation, influenced by national commercial practice and other current changes in the environment.

3.1. From the phonologically coded text , the FON grogram examined stressed vowels and diphthongs of these words: "cream", "three","moon", "two", "chicken", "pig", "pistol", "sixty", "spigot", "boy", "bench", "fence", "nest", "red -", "headed", "twelve", "terrapin", "wrench", "bandit", "dragon", "handkerchief", "man", "mask", "rack", "eight", "eighty", "rail", "skates", "snake", "foot", "wood", "cone", "hog", "faucet", "catalpa", "hawk", "automobile", "fly", "ice", "lightning", "flower", "towels", "nose", "stove", "bug", "cub", "gun", "wasp", "salt", "saw", "ear", "beard", "mirror", "feeder", "bear", "-pecker-", "pepper", "shaker", "forty", "horse", "four", "turkey", "turtle", "worm", "roller", "robber", "water", "doctor", "barb(ed)", "arm", "stars", "car", "pliers", "wire".

3.2. The FON program searched the text for designated code symbols,sorted them, listed the results by county according to the grid concept in Kurath and Mc David's presentation of vowels and dipthongs of the Atlantic states (1961), and gave totals and percentages for areas A and B. Major sorting placed the results in one of three groups: Option 1,those stressed vowels equivalent to the vowel of one in the list "three", "six", "ear", "ten", "care", "thirty", "bag", "barn", and "college". Option 2, those equivalent to the stressed vowel in "two", "wood", "road", "door", "sun", "frost", and "forty". Option 3, originally restricted to the diphtongs in "five", "down", and "boy", but later expanded to include any variable which needed to be recorded in

a form similar to one already tabulated in Option 1 or 2. If the /e/ of "fence" had been recorded in Option 1, then some examination of its recurrence in "rail fence" and "barbed wire fence" was appropriate; Option 3 took care of the problem of counting without causing the computer to report that a maximum of 33 responses had been exceeded. In addition, the FON program listed any words which had been coded but which had not been examined for vowel or diphthong content during that run.

3.3. From the tables, we deduced that the stressed vowel of "cream" and "feeder", that of "chicken", "pig", "pistol", "sixty", and "spigot", that of "moon and "two", and the diphthong of "boy" are uniform in their pronunciation in all counties of the region.

3.4. Variables occur in all other vowels and diphthongs studied. These variables include the presence of several vowels for the same word: "Wrench", for example, has the vowels of "ten", "tan", or "tin". Variables also include the expansion of a vowel into a diphthong and, conversely, The reduction of diphthongs to monophthongs: "Red" by itself develops a fronting diphthong, coded REI*D. The fully articulated diphthong in "fly" or "ice" is so reduced that it resembles the /a/ of "pod". In the coding it is treated as a monophthong so that we have tabulations of the variants FLAI* and FLA, FLA*.

3.5. Variables also occur in some of the consonants. The only one to be considered since it is popularly considered a true sign of Southern pronunciation is the 'loss' of postvocalic /r/. The 'lost' /r/ was coded as an obscure schwa sound, shown as 8: the 'present' /r/ was coded by the letter itself. "Wire", for instance, was WA8 and WAI*R.

3.6. In the Atlantic states phonological variations that Kurath and McDavid treat as "same sound" are of great diversity. It is thus harder to delimit phonological dialects than it is lexical ones. In the counties which we examined, the problem is greater since the subregion has not maintained the kinds of separated patterns of the seaboard; rather, the patterns of the interior are mixed.

3.7. Granting the more nebulous nature of the distinctions between regional pronunciations, we can still draw some conclusions with regard to the interior if we follow the procedure of mapping the density pattern. "Bench" and reduced diphthong variants of words in /ai/ and /au/ have a common dinsity in Jackson, Marshall, and Talladega counties. Variations back and forth between the vowel sounds of "calm" and "daughter" found in "wasp", "faucet", "barb(ed)", "arm", "stars", "car", "forty", "horse", "catalpa", "hawk", "saw", "salt", and "hog" have their concentrations in Bradley, Hamilton, Lawrence, St. Clair, Bullock, and Marengo counties. The concentrations of postvocalic /r/ as both 'present' and 'lost' in the same word appears in

Bradley, Hamiltion, Jackson, Marshall, Lawrence, Macon, Bullock, Montgomery, and Crenshaw counties. A composite of composites places the centers of all these concentrations in Lawrence, Bullock, and Marengo.

3.8. The tabulations do not indicate that there are new sounds in the way that there are new words. Phonological innovation, rather, is the slow replacement of one sound by another by subsitiution, reduction, or expansion (lengthening into a diphthong). If one assumes that the phonological dissemination parallels the dominant Midland dissemination of lexical features, then the reduced form of "fly" will replace the diphthong variant the actual postvocalic /r/ will replace the 'lost' one, and the stressed vowel of "daughter" will gain over the competing vowel of "calm". This oversimplified statement of possible developments ignores such things as the influence of schools, of the national dialects as heard on television and radio, and of the apparent prestige of pronunciations such as the 'lost' /r/ which is carefully acquired by social climbers.

3.9. In terms of patterns of geographic distribution, the axes of phonological similarity between counties correspond generally to those lexical similarity. The ranges of diversity within counties are equally great, gradations which extend from a single instance in one or two counties to sub-regional identity of vowel or diphthong sound. The present range is sufficient to handle the pronunciation of any new words which the lexicon introduces.

4.1. From the conventionally spelled text which provided evidence of the lexicon the SYN program reconstituted specific segments of sentences to be placed in slots in a slot and filler grammar. The program first searched for a designated part of the already tabulated lexical word; thus, it sought "bug" in the lexical "lightning-bug". Using that word as a base it placed preceding and succeeding text words in their sentence order on either side of the base. If it encountered editorial signs such as periods and hyphens, or instructional words such as HINT, OMIS, or SEE, it deleted them and replaced them by the next text word. If no word appeared, it filled the slot with six periods.

4.2. The first part of the printout of the SYN program is a localized text which can be examined for points of similarity. If we begin with those simple responses which say the number and the name of a depicted object, we get short sentences of subject, verb (optional), complement order in a format which places the most remote antecedent influence on sentence structure in position A 5. A part of the printout looks like this:

A5	A4	A3	A2	A1	base
four	thirty	three	is	a	grasshopper
hundred	and	thirty	three	a	grasshopper
.....	.....	four	thirty	three	grasshopper

4.3. Responses which make a fuller comment give rise to words in the complementary position following the base word. If we consider this reconstituted part of the response only, we find the sequence:

base	C1	C2	C3	C2
bear	and	her	cub	which
bear	after	bees	the (new sentence)	bear
bear	with	the	cub	robbing
bear	in	a	beehive	.....
bear	with	her	cub	and (new sentence)

4.4. The second printout of the SYN program is a county by county tabulation of the positional frequency of selected parts of speech as they occur in slots A5 through A1 and C1 through C5, with area subtotals and regional totals for quantifiers, determiners, auxiliaries, conjunctions, prepositions, pronouns, relatives, and adverbs.

4.5. In syntactical terms we can say that one contrasting pattern can be mapped, the two word sequence "two thirteen" as contrasted with the four word sequence "two hundred and thirteen". Obviously this syntactical distribution is identical with the mapped lexical distribution which has already been noted.

4.6. For short sentences, the preferred determiner is "a", sometimes exceeding a ratio of 20 to 1 in relation to "the". Second, the customary verb following a number is "is". Third, the quantifier

"some" regularly occurs in two settings: "some kind of bug" and "bug of some kind". And fourth, two grammatical elements have been combined into one function in the instance of the conjunction "and" and the preposition "with": "queen and a crown" and "queen with a crown"; the function is coordination.

4.7 Longer original statements permit other constructions such as those "-ing" in the complement slots: "bear stealing honey", "trying to get". In the longest statements we find the greatest variety: quasi-passive constructions in "-ed", "with a pistol pointed"; parallel noun and verb phrasings of the same information, "with a mask over his face' and "has a mask over his face"; and variant functions for recently constructed words. "Hold" plus "up" for example, is the source of an Americanism "to hold up" in the sense of robbing (verb, 1851, no usage label), a "holdup" (noun, 1878, slang, colloquial, or informal labels), and "a holdup man" (adjective slot, no date, no comment in unabridged dictionaries).

4.8 If we turn to the tabulated summaries by position, articles most often occupy slots A2 and A1 (100 or more examples), and next most often slot C2 as an indication that a second noun is to follow. Quantifiers ("all", "half", "least", and the like) occur with about equal regularity in slots A5 through A2. Auxiliaries ("is", "can", "must") exceed 100 instances in A2. Conjunctions, prepositions,

pronouns, adverbs, and relatives occur less often. Conjunctions commonly occur in slot C1 as do prepositions; pronouns occupy slots C1, 2 and 3. The maximum occurence of adverbs barely exceeds five instances in C2 and C4; the maximum for relatives is 4 in C1, 2, or 4.

The high count for quantifiers and for auxiliaries arises from the interview procedures which require the informants to call the number and then make some remark about the contents of the picture. The outcome is a considerable body of statements according to the pattern " Ten is a ..."

4.9. One question remains unanswered: From the tabulations do we obtain an indication that syntactical sequence in Area A differs from that in Area B? If we examine the total, for instance of quantifiers, we find in slot A4 a difference of 30 in favor of Area B; in slot A2 the difference is 20 in favor of Area A. Yet no other grammatical units of those tabulated shows a comparable difference according to area and slot. In short, there is no other grammatical evidance to support a contention that the areas have a countable difference in preferred syntactical sequences.

5 To bring the results of the three programs together, we can conclude that the computer has served as an impersonal gatherer,

arranger, and tabulator of transcribed linguistic data which originated in tape recordings. The resulting tabulations provide us with a model of a part of the total linguistic performance. From the geographic distribution of individual elements of that model we deduce that within the Tennessee-Alabama sub-region are uniformities of lexicon, phonology, and syntax that occured throughout the counties studied. Parallel to these uniformities are gradations in lexicon, phonology, and syntax which can be mapped. Those of lexicon are most readily identified and accounted for in terms of settlement history and later changes in the total environment; in historical terms, the important lexical features arise in the Midland and South Midland speech areas of the Atlantic states; in terms of current change, the new lexical distributions are influenced by commerical activities on a national scale. Phonological and syntactical change are less evident, though gradation in variant forms is observable. The phonological aspect can be linked with the phonology of the Atlantic states with a conclusion that the Midland features are expanding in this sub-region at the expense of Southern ones. Except by inference, Syntax cannot be extended beyond the sub-region since no comparable study of spoken syntactical patterns is available for the speech of the Atlantic states.

Additional inquiry is indicated whether we are concerned with the linguistic model, with any one of the linguistic elements by itself, with the interaction of lexicon, phonology, and syntax on each other, with the application of language data to various concepts of public instruction, or with the theory and practice of computational linguistics.

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ERIC FACILITY

SUITE 601

[illegible] EYE STREET, N. W.

[illegible]TON, D. C. 20006