LINGUISTIC INTERLUDES

by

Eugene A. Nida, Ph.D.

Summer Institute of Linguistics, Inc.
Box 1960, Santa Ana, California

INDIAN INSTITUTE OF ADVANCED STUDY SIMLA

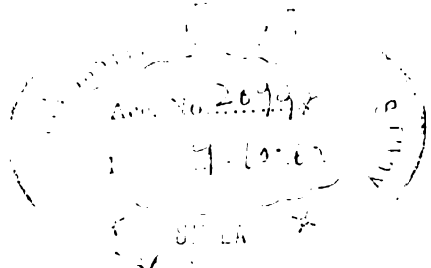
MUNSHI RAM MANOHAR LAL
ORIENTAL BOOKSELLERS & PUBLISHERS
POST BOX 1165, DELHI 6, INDIA

LINGUISTIC INTERLUDES

by

Eugene A. Nida, Ph.D.

Summer Institute of Linguistics, Inc.
Box 1960, Santa Ana, California



PREFACE

These Linguistic Interludes represent a rather radical departure from the more conventional methods of presenting linguistics. They are designed to introduce the beginning student or layman to (1) the conflicting attitudes toward linguistics, (2) the fundamental principles of the descriptive linguistic approach, (3) elementary background of historical and comparative methodology, (4) the history of linguistic study, and (5) the relationship of linguistics to human culture in general.

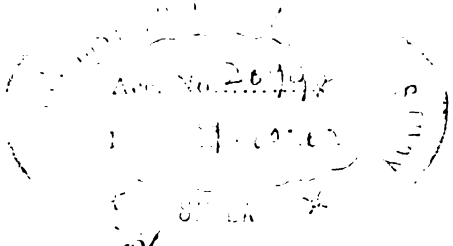
The available books which deal with the study of language are often too technical and too detailed for the beginning student. He cannot see the forest because of the trees. Furthermore, such books usually do not present the various viewpoints, so that the student can see the more recent developments in contrast with what he has learned in the conventional "grammar" education.

The style and method of presentation has been developed so as to present (1) the conflicting ideas about language, (2) the lines of argumentation and steps in the analysis of various problems which the students may be able to follow easily, and (3) a comparatively pleasant means of introduction to the background material of linguistics, a study which one often finds dull and uninteresting. Accordingly, the writer has put all the material into the mouths of interlocutors, who have been chosen as representing the different types of amateur and professional attitudes toward descriptive linguistics, though some characters are admitted drawn out of proportion so as to make any disparagement less bitter by very virtue of the caricature.

This volume is a complete revision of the 1944 edition, with the deletion of one chapter and the addition of another. It is hoped that the present edition will be faster moving in dramatic detail, richer in illustrative material, and more comprehensive in scope.

Illustrative material for these dialogues has been drawn from research work conducted by the writer and various of his colleagues of the Summer Institute of Linguistics, and from the following books and articles:

Bloomfield, Leonard, Language, New York, 1933.
Fries, Charles C., American English Grammar, New York, 1940.



PREFACE

These Linguistic Interludes represent a rather radical departure from the more conventional methods of presenting linguistics. They are designed to introduce the beginning student or layman to (1) the conflicting attitudes toward linguistics, (2) the fundamental principles of the descriptive linguistic approach, (3) elementary background of historical and comparative methodology, (4) the history of linguistic study, and (5) the relationship of linguistics to human culture in general.

The available books which deal with the study of language are often too technical and too detailed for the beginning student. He cannot see the forest because of the trees. Furthermore, such books usually do not present the various viewpoints, so that the student can see the more recent developments in contrast with what he has learned in the conventional "grammar" education.

The style and method of presentation has been developed so as to present (1) the conflicting ideas about language, (2) the lines of argumentation and steps in the analysis of various problems which the students may be able to follow easily, and (3) a comparatively pleasant means of introduction to the background material of linguistics, a study which one often finds dull and uninteresting. Accordingly, the writer has put all the material into the mouths of interlocutors, who have been chosen as representing the different types of amateur and professional attitudes toward descriptive linguistics, though some characters are admitted drawn out of proportion so as to make any disparagement less bitter by very virtue of the caricature.

This volume is a complete revision of the 1944 edition, with the deletion of one chapter and the addition of another. It is hoped that the present edition will be faster moving in dramatic detail, richer in illustrative material, and more comprehensive in scope.

Illustrative material for these dialogues has been drawn from research work conducted by the writer and various of his colleagues of the Summer Institute of Linguistics, and from the following books and articles:

Bloomfield, Leonard, Language, New York, 1933.
Fries, Charles C., American English Grammar, New York, 1940.

Graff, Willem L., Language and Languages, New York, 1932.
Haas, Mary R., Tunica, Handbook of American Indian Languages, vol. 4, New York, 1940.
---------, "Ablaut and Its Function in Muskogee," Language, vol. 16, pp. 141-150.
---------, "The Use of Numeral Classifiers in Thai," ibid., vol. 18, pp. 201-205.
---------, "Noun Incorporation in the Muskogean Languages," ibid., vol. 17, pp. 311-315.
Jespersen, Otto, Language, Its Nature, Development and Origin, London, 1933.
Moore, Samuel, and Thomas A. Knott, The Elements of Old English, Ann Arbor (Mich.), 1940.
Prokosch, E., A Comparative Germanic Grammar, Philadelphia, 1939.
Sturtevant, E. H., The Pronunciation of Greek and Latin, Philadelphia, 1940.
Swadesh, Morris, La Nueva Filologia, Mexico City, 1941.
Voegelin, C. F., and M. E. Ellinghausen, "Turkish Structure," Journal of the American Oriental Society, vol. 63, no. 1 (1943), pp. 34-65.

My wife's suggestions have been largely responsible for this "down-to-earth" presentation of linguistics.

New York
March, 1947

Eugene A. Nida

CONTENTS

Interlude 1

CLASH IN THE CO-OP

Bill Downing: Ann, this is Dr. Thompson, whom I heard last night discussing morphemes and phonemes. Dr. Thompson, this is my friend Ann Ferrell.

Dr. Thompson: How do you do, Miss Ferrell?

Ann Ferrell: I am so glad to meet you, Dr. Thompson. Bill has been raving about linguistics all morning.

Dr. Thompson: I'm glad to hear that the lecture seems to have impressed at least one person.

Ann Ferrell: Indeed it has! Do sit down and join us, Dr. Thompson.

Dr. Thompson: Gladly. Thank you.

Bill Downing: What I like best about this technique you presented last night is that it is so new and different.

Dr. Thompson: Well, in some ways that is the case, but actually it is rather old stuff.

Bill Downing: What do you mean? We've certainly never received it from any of the other profs here at the university.

Dr. Thompson: It may seem strange, but without doubt the finest pieces of descriptive work were done by Sanskrit grammarians before the time of Christ.

Bill Downing: Then why haven't we been hearing about these descriptive methods before now?

Dr. Thompson: Most linguists of the past century were too much taken up by the study of the history of European languages to bother very much with describing languages. Then, too, the rhetoricians, who have had a rather heavy incubus around their necks in the form of the Latin and Greek grammatical apparatus, have been rather slow to introduce new methods into the study of languages.

Ann Ferrell: You are evidently quite opposed to the classical view of grammar. You should have a chance to meet Dr. Horatio Zilch. He is the principal protagonist among the old-school grammarians here.

Dr. Thompson: Yes. Someone mentioned Dr. Zilch to me yesterday.

Bill Downing: I presume that I might as well tell you that in his office this morning he delivered some rather strong bombast against you and the descriptive linguists. A friend of mine, Charles Morgan, told me last hour about it. I can well believe it, for I used to take rhetoric and grammar from "Old Horatio."

Dr. Thompson: I'm glad to hear he's talking about the course. It doesn't make much difference what is said. If people can be made curious, we'll have a good class of curiosity-seekers. Actually, being curious is the best foundation for scholarship. Eternal curiosity and knowledge of how to satisfy that curiosity make a research person. I do hope that I can meet Dr. Zilch.

Bill Downing: You may be assured that Dr. Zilch is anxious to meet you, for he heard you last night. Dr. Zilch often comes into the co-op here for tea about this time in the afternoon. I'll keep an eye open for him.

Ann Ferrell: Dr. Thompson, Bill told me that in the course you are going to use native speakers of various aboriginal languages. Why do you do that, for goodness sakes?

Dr. Thompson: That is a rather big question. However, have you ever heard that if one wants to study oneself, the best thing is to look at others; and vice versa, when one wants to study others, one must look at oneself. If we look at languages which have utterly different structures, we are likely to get rid of some of the preconceived ideas that we have had about languages because we have known only English or perhaps one or two other more or less related languages.

Ann Ferrell: How different can these aboriginal languages be?

Dr. Thompson: They can be different in almost any and every detail. But here is a specific example. Some languages do not have words which correspond in the function of the grammar to our adjectives.

Ann Ferrell: How would they ever say the good man?

Dr. Thompson: The speakers of such languages would say 'the man goods,' for they express by verbs what we express by adjectives.

Bill Downing: One minute, Dr. Thompson. Dr. Zilch just came in. Would you like to have him join us?

Dr. Thompson: By all means.

Bill Downing: He's a rather opinionated person, as I told you.

Dr. Thompson: That's fine. I'd rather know people who have wrong ideas than those who have no ideas at all. But which one of the men standing by the counter is he? I may perhaps have met him at the faculty meeting, but I do not remember.

Bill Downing: Dr. Zilch is the rather large, heavy-set man, with the black homburg hat, gold-headed cane over his arm, glasses tied to a ribbon, and that big Phi Beta Kappa key that hangs like a medal of the Legion of Honor.

Dr. Thompson: Oh yes. I do recognize him.

Bill Downing: I'll step over and invite him to drink his tea with us.

Dr. Thompson: Good.

[Bill Downing goes to get Dr. Zilch.]

Ann Ferrell: Dr. Zilch is really a very fine old fellow. His ideas are rather conventional and authoritative. That is especially hard for Bill to swallow, but "Old Horatio," as we call him behind his back, is really a pretty good "Joe."

Dr. Thompson: I'm sure I shall like him.

[Bill Downing returns with Dr. Zilch.]

Bill Downing: Dr. Zilch, this is Dr. Thompson, and I'm sure you know Ann Ferrell.

Dr. Zilch: How do you do, Ann? I'm delighted to see you. And Dr. Thompson, this is indeed a pleasure to meet you again. I have been looking forward to having some brief opportunity to chat with you. There are so many items that I want to take up with you, having heard your lecture last night; but first, do explain what you said about bringing in speakers of primitive languages for the study of linguistics. What

can these simple natives contribute to a university?

Dr. Thompson: Perhaps your difficulty lies in the fact that you consider the so-called primitive aboriginals as being essentially simple, naïve, and barren as regards cultural achievements. This may be somewhat the fault of calling them "primitive peoples." It would be better to speak of such people and languages as being non-literate. In terms of cultural achievements and adaptation to human needs, these peoples may have surpassed us.

Dr. Zilch: Pure unadulterated primitivism! That's all! What can they show us?

Dr. Thompson: Your reactions are not strange. Miss Ferrell was asking me about this aspect of the course before you joined us. Perhaps I could say that the main purpose of such work with aboriginal languages is to obtain a fresh approach.

Dr. Zilch: But by aboriginal languages, you mean unwritten ones!

Dr. Thompson: That's right. Ones which are not regularly written by the natives themselves.

Dr. Zilch: That means then that there is no literature, no poetry, drama, stories, not a Shakespeare or a Demosthenes in the crowd. Don't you feel, Dr. Thompson, that you are wasting precious years of students' time, having them study languages that have no recognized literary tradition?

Dr. Thompson: That may very well seem to be the case. But there are two factors involved. First, linguistics is not the study of literature. That is technically philology. Linguistics deals simply with language, any type of language, and anyone's language.

Dr. Zilch: But why not make your study the analysis of noble speech and language, rather than a series of some inarticulate aboriginal grunts?

Dr. Thompson: We'll come to that in a moment. However, first be assured that I agree most heartily in the study of literary productions. They are very worthwhile. But Dr. Zilch, don't you believe that there is value in studying something which society uses as much as language, something without which we could have absolutely no organized society and culture?

Dr. Zilch: I suppose that one is justified in the study of such matters as the economics of a people, but for me that is far too banal.

Dr. Thompson: Well, linguistics is in some degree more fundamental than economics. Without language such exchange as we know would not exist. Language is a vital part of all our living. In some ways there is a distinct parallelism between economics and descriptive linguistics. If we are going to describe the economic life of a people, we have to consider Joe Zlaket, who runs the corner fruit-stand, as well as the multimillionaire. Similarly, if we are going to describe the language of a people, we must be concerned with Joe Zlaket's speech, just as well as Shakespeare's. You could not obtain a balanced picture of the economic life of the United States by analyzing only the business dealings of the Rockefeller family, any more than one can obtain an accurate picture of the function of a language in society by limiting research to Shakespeare. I dare say, too, that just as we know better the significance of the Rockefeller dealings after studying the economic life of the little business man, so we can even bring some light to bear on the language of the literary masters by knowing the linguistic usage of the "butchers, the bakers, and the candlestick-makers."

Dr. Zilch: I admit that you descriptive linguists seem to have some purpose in what you are doing, and if you wish to waste your time studying languages with a few hundred words and trying to describe how the natives make out their meaning with grunts and gesticulation, that is all right with me. I do hope, however, that you do not play the Pied Piper here in the university and lead aside our really serious students.

Dr. Thompson: You have made out quite a case against me, haven't you, Dr. Zilch? Perhaps descriptive linguists are not as bad as you have depicted them. The impression that people with a primitive material culture...

Dr. Zilch: There you go again, speaking exactly as an anthropologist would.

Dr. Thompson: Is speaking like an anthropologist actually as bad as all that? He simply studies all types of people, rather than a select few as in the case of the biographer or the historian. It is true, however, that we descriptive linguists and the anthropologists have much in common.

Dr. Zilch: That's right--primitivism.

Dr. Thompson: Well, be that as it may, let's get back to our primitives. The impression which you have about their limited vocabulary and almost awkwardly simple grammar is quite a universal conception. Actual investigation soon dispels this idea. Consider this one word in the San Blas language of Panama, ampo'ittimalasarso·sana. It means 'the two of us just about hit them, but we did not.' What we say in twelve words in English, the San Blas Indians may say in one.

Dr. Zilch: And is that just one word?

Dr. Thompson: In a somewhat similar way as we define predestination as one word. In English pre-, -de-, -stin-, -a-, -t-, and -ion are all meaningless apart from the combination. It is much the same with this San Blas word. The units have their meaning in combination.

Dr. Zilch: What do these various parts mean?

Dr. Thompson: Well, am- indicates first person. It is usually an- except before certain bilabial stop consonants, where it becomes am-. We speak of this m as being assimilated.

Dr. Zilch: That assimilation, I suppose, is the result of the general slovenliness of the speech and the laziness of the people.

Dr. Thompson: Not any more than in English, where the negative prefix in- becomes im- before a word beginning with a bilabial consonant, such as in the word imperfect.

Dr. Zilch: The situation is rather parallel, I must admit. However, what about the rest of the word?

Dr. Thompson: The second unit is -po- which means 'two.'

Dr. Zilch: But does the language use the same am- or an-, whether a singular or plural, for the first person? Am I right in assuming that a pluralizing ending is added to a singular form? How inadequate to make no distinction as between 'I' and 'we'! It would be the same as saying I-two.

Dr. Thompson: In some ways the San Blas is better than the English, for we say you for singular and plural and make no indication whatsoever of a distinction between plural and singular reference.

Dr. Zilch: I have always decried the loss of thou and thee to contrast with ye and you. It's the modern intellectual

laziness that even creeps into English and corrupts it.

Dr. Thompson: We may have a chance to discuss this matter later, but be that as it may, let's examine the San Blas word further. The third unit is -itti-. This is the third person indicator, and the fourth element -mala- pluralizes the third person indicator.

Dr. Zilch: That is evidently parallel to the first person. I presume one would say anmala- for 'we.'

Dr. Thompson: You're absolutely right, Dr. Zilch. It wouldn't be any time at all before you would be having a great time with these aboriginal languages.

Dr. Zilch: Perish the thought! But one cannot refrain from pointing out a few analogies. That is what comes from classical training.

Dr. Thompson: Fine! Then perhaps you'll become a student of descriptive linguistics all the more rapidly. The stem of the San Blas word we mentioned is -sarso·- which means 'hit.' The -sa- suffix shows the past tense, and the -na is a reversive. This particle completely changes the meaning. Instead of the 'two of us hit them,' the resultant word means 'the two of us just about hit them but we did not.' The word ampo'ittimalasarso·sana could hardly be called an example of an "awkwardly simple grammar."

Dr. Zilch: It must be admitted that the San Blas put a good deal of meaning into very small insignificant items. This would seem to be very poor judgment on their part in attaching so much meaning to such a small element as the final suffix -na.

Dr. Thompson: You will admit, however, that English leaves a good deal of meaning to be borne by such small, generally unaccented words as not and if.

Dr. Zilch: I must admit that is true. From the type of illustration in the San Blas I would take it for granted that you could perhaps have a paradigm in some of these aboriginal languages even as extensive as in Greek.

Dr. Thompson: You are a little more than right. Actually, with all the possible combinations of grammatical units, this stem -sarso·- in San Blas could probably appear in some 10,000 different combinations.

Dr. Zilch: My word! Is it possible? Imagine the task of a teacher having to teach natives to recite paradigms of 10,000 forms.

Dr. Thompson: In the first place, no one is ever called upon to teach the native children the 10,000 forms of the verbs. They learn to form words in the same way as English children learn to form complicated sentences. Children can form sentences because they have learned the patterns into which the words fit. In the same way San Blas children can use rather large words, for they learn the system into which the various elements fit. In exactly the same manner as you discovered the pattern for anmala- 'we,' so San Blas natives form their complex words.

Dr. Zilch: The factor which makes English so remarkable and so easy for people to understand is the crystal-clear word order. English shows orderliness of thinking. I presume that these aboriginal languages throw their words together in almost any fashion that they like or can devise.

Dr. Thompson: You are quite wrong. This San Blas language has every bit as fixed a word order as we have in English. The subject expression normally occurs first, preceded and followed by various classes of attributives. The object expression follows the subject expression and this in turn may be preceded and followed by various classes of attributives. Third, the attributives of the verb occur, and finally, the verb expression. Following the verb there may occur certain stylistic words indicating whether the sentence is colloquial, oratorical, or poetical.

Dr. Zilch: This is almost elaborate enough to be considered an actual language.

Dr. Thompson: It is most emphatically just that.

Dr. Zilch: You have chosen a very good example, I must concede. I'll have to do some investigating of this subject myself to see what other features these primitive languages are credited with having.

Dr. Thompson: Good! If your curiosity is aroused, that is all I could ask for, even though you do accuse me of a little misrepresentation.

Dr. Zilch: However, in connection with these long words, which you intimate these aboriginal languages have, I would like to suggest that there is nothing particularly good about

long words in themselves. The Indo-European languages have always avoided that tendency.

Dr. Thompson: In the first place, aboriginal languages do not all have long words. Aboriginal languages have all types of words. But as for Indo-European languages always avoiding long words, I'm not so sure. Consider the Gothic word habaidedeima, which is equivalent to Modern English had.

Dr. Zilch: Yes. That is exactly the point I have inferred. Consider that English by short words is getting rid of such excess baggage, and in doing so overcoming some abortive tendencies in the history of the Germanic languages.

Dr. Thompson: This doesn't sound the same as your former argument about the aboriginal language attaching so much meaning to small units. However, even in the case of English, though we do have some short words, we still say unattractive when we could possibly get along with ugly.

Dr. Zilch: Possibly, Dr. Thompson. But tell me, is there any system to the inflection of these languages which is comparable to the excellency of the Greek noun?

Dr. Thompson: That can possibly be indicated best by giving you a paradigm in the Quechua language. A few of the possible forms are:

t'ika	'flower'
t'ikay	'my flower'
t'ikaykuna	'my flowers'
t'ikaykunaman	'to my flowers'
t'ikaykunamanta	'of my flowers'
t'ikaykunamantapacha	'from my flowers'
t'ikaykunamantapachalla	'from my flowers only'
t'ikaykunamantapachallapis	'also from my flowers only'

Dr. Zilch: Indeed, it is a rather interesting type of paradigm. Very typical, indeed, isn't it, of the agglutinative languages, where you keep on adding one element after another? I presume that you teach your students the gradual evolution of languages from the monosyllabic isolating languages such as

Chinese, through the agglutinative stage as in the Polynesian, Quechua, and San Blas, finally to the perfection of the inflected type, such as the Indo-European. I remember that was what we learned concerning your so-called descriptive linguistics when I was a student at Harvard.

Dr. Thompson: I fear then that you haven't been studying any descriptive linguistics since that time. for such ideas are very much out of vogue today.

Dr. Zilch: Is it possible? Why, I have been teaching that from my notes for many years.

Dr. Thompson: It is advisable at times to revise notes, you know. However, such ideas are quite wrong about the evolution of language from the monosyllabic languages through the agglutinative stage and finally to the inflected languages such as Greek and Latin. Moreover, such speculation is decidedly not descriptive. The historical and comparative enthusiasts of the past generation have been responsible for such errors in interpretation of information, not the descriptive linguists.

Dr. Zilch: The theory seems very plausible and cogent.

Dr. Thompson: Superficially it does seem so. One of the hitches in the entire idea is the fact that Chinese has been found to be the result of considerable change in itself. Chinese belongs to the Sino-Tibetan family of languages, and these languages at one time were polysyllabic and inflected, even as the research of Karlgren and others has so admirably demonstrated.

Dr. Zilch: Is it possible?

Dr. Thompson: Moreover, it is strange for you to assume that the Chinese should represent the most "primitive" language. Certainly there is no correlation between this and primitivism of culture that you have mentioned before.

Dr. Zilch: But do you not find in general that the primitives of the world have this second type of language, namely, agglutinative?

Dr. Thompson: It is true that a great percentage of primitive people of the world have agglutinative languages. It is also true that a similar percentage of all the languages of the world are agglutinative. However, many so-called primitives have inflected languages. There is surely no hard-and-fast correlation in this regard. Moreover, it is unwise to attempt

to classify languages rigidly as monosyllabic, agglutinative, and inflected. This is not a mutually exclusive type of classification, for many languages have characteristics of all these three types. English, for example, has many monosyllabic words which are not inflected in grammatical structure. It also has some inflection, as in the pluralization of nouns and the formation of verbs, but in addition has what we may call agglutinative development in such a word as ungentlemanliness.

Dr. Zilch: Well then, setting aside both the first two groups, the monosyllabic and the agglutinative, as not giving us definite correlations, wouldn't you say that the historically inflected languages of the Indo-European culture were the highest type of language to which mankind may evolve? Consider the remarkable cultural achievements of western civilization.

Dr. Thompson: You have fallen into a common intellectual ditch. Because we are representatives of a culture that has attained the most advanced material stage so far achieved in human history is no indication that the way we cut our hair is the finest in the world.

Dr. Zilch: But what does the tonsorial culture of a people have to do with civilization?

Dr. Thompson: Exactly nothing! That is the point. The fact that Indo-European peoples have an inflected language is an accident of history and no indication of intellectual superiority or of their being an advanced link in any evolutionary chain. The additional fact that in the nineteenth century the people of western civilization took upon themselves the "White Man's Burden," considerably for their own enrichment, and have had plenty of gunpowder to back up their 'philanthropy' is no special reason why their language or their hair-do represents the acme of perfection.

Dr. Zilch: But if you will not take into consideration the cultural attainments of the people, surely you must have to take into consideration the physical make-up of the people when you analyze languages. This must be especially true in connection with the sounds.

Dr. Thompson: What do you mean?

Dr. Zilch: Exactly this. You surely must expect the Negro with his broad lips to produce the broad vowels. He is physiologically conditioned to speak in a particular manner.

Dr. Thompson: I cannot agree with you at all in this matter. I remember the shock which I had when I heard a Negro who was raised and educated in the Bahamas and England speak with an accent which seemed to echo from the very walls of Oxford. I have likewise heard Negroes glide beautifully through French which they had learned in Algiers, or trip along with a staccato pronunciation of Spanish which they had learned as their native tongue in Mexico.

Dr. Zilch: But tell me then why the Negro of the United States speaks with an accent which is different from my speech.

Dr. Thompson: The basic reason for this is that his speech is in general like that of the South, and even where the Negro has moved north he has to a great extent carried this speech with him. Furthermore, the Negro in the United States so often lives in a linguistic community separated from the Whites, except in the matter of business, that the Negro dialect is less affected by the dialect of the Whites than are two contiguous dialects spoken by Whites. I have heard Negroes speak who were raised entirely with Whites, and their speech did not indicate the slightest deviation from the common standard.

Dr. Zilch: Then what about Orientals coming to this country?

Dr. Thompson: The same thing applies. I have Japanese and Chinese friends who have been raised here in the United States and whose speech doesn't contain the slightest trace of any "foreign" accent.

Dr. Zilch: What you say, Dr. Thompson, is very different from what one has been led to believe by others. This bears investigation. However, in connection with the aboriginal languages that have been mentioned I would like to comment about the situation involving vocabulary. Surely such primitives cannot have very extensive vocabularies. Limited cultures must imply limited vocabularies.

Dr. Thompson: It is true that people do not need to have any more words than they have referents in their lives. But I am inclined to believe that we are very likely to underestimate our primitive aboriginal friends.

Dr. Zilch: "Friends" sounds like an anthropologist turned humanitarian.

Dr. Thompson: I presume that you are right. After learning to know such people, who have so many remarkable qualities, it

is hard to think of them except as friends.

But relative to the point we were discussing, you may be assured that aboriginal peoples have plenty of vocabulary to express all the ideas they have. Even introductory and superficial examinations reveal that most so-called aboriginal languages have well over 20,000 words, if we count words as in English including all regular derivatives as new words, namely, counting educate as one word and education as another and educational as a third.

Bill Downing: Excuse me, Dr. Thompson, but what about words for 'car,' 'locomotive,' 'dynamo,' 'airplane,' 'radio,' etc., things which aboriginal peoples don't have?

Dr. Thompson: Rather, excuse me, Bill. Dr. Zilch and I have been talking so much that I'm afraid we haven't given you or Miss Ferrell a chance to interrupt.

Bill Downing: That's perfectly all right. I really don't know enough to discuss linguistics intelligently. Anyway, the discussion is answering exactly the problems I have been wondering about. So please go ahead.

Dr. Thompson: However, your question about new things in the material culture of primitive people is a good one. We have acquired new things in our culture and we have always managed to obtain a name for them. Sometimes we import the name along with the article as in the case of spaghetti, which we have taken over from Italian. For some items in our culture such as bicycle and locomotive we have employed Greek and Latin derivatives. At other times we use descriptive words with English constituents and form a compound such as airplane. Aboriginal languages do not have any such "learned" vocabulary from which to construct words as we do from Greek and Latin, but they do borrow words for things, even as a Tarahumara Indian calls a table a [mésaǩi], borrowing mesa 'table' from Spanish and making a good Tarahumara word out of it by adding the derivative suffix [-ǩi].

Bill Downing: I never could understand why all sciences had to borrow so persistently from Greek and Latin. Why say biology when we could say life-science, or gastropod when we could say stomach-foot?

Dr. Zilch: It would be much less scientific.

Dr. Thompson: I would not agree with you, except for the fact that science is the common heritage of all of western

culture and that, since the classical languages are part of this common heritage, it is a convenience that terms should be taken from such languages. When one knows the so-called scientific term, then he has very little difficulty recognizing this in scientific writings in any European language. On the other hand, he would be obliged to learn many new terms if he cared to do research work and investigate the findings of those who have employed foreign languages in describing their work.

Bill Downing: You mentioned that in aboriginal languages the tendency has been to borrow or to make up descriptive words, for evidently they cannot have the so-called technical vocabulary. What would aboriginals do with a word such as bicycle?

Dr. Thompson: It is difficult to say what they would do with bicycle, but hypothetically they could do any one of three principal things. They could borrow the word bicycle making whatever changes in the pronunciation are necessary to make it conform to the pattern of their language. This is what we may speak of as transliteration. The aboriginals might translate the word. This would be quite rare, for an aboriginal would not know that bi- means 'two' and -cycle 'wheel.' But presuming that we have a very smart and exceptional aboriginal, it is hypothetically possible that the resultant word would be something which would correspond to English 'two-wheeler.' Finally, the aboriginal might employ a descriptive word or phrase in his own language. This would be far more likely than the second possibility. In the early days some Indians of the Middle West did develop a phrase expression for a bicycle and called this "White man sits down to walk."

Ann Ferrell: It surely is a good functional name, to say the least. Descriptive names are the ones I attempt to invent when in writing an exam I cannot remember the technical vocabulary. I always hope that the person correcting the paper will think I am trying to be explicit and scientific rather than suspecting that I am covering up my ignorance.

Dr. Zilch: My word, but you students are a clever lot! I shall have to check more closely after this. I fear that I have been too lenient with those who ramble through their examinations with long descriptions.

Ann Ferrell: Oh, Dr. Zilch, filling examination papers with a maximum of words on a minimum of information is undoubtedly one of the basic sciences of the university.

Dr. Zilch: Is this a case of honest confession being good for the soul?

Ann Ferrell: Not altogether. Just a general observation about collegiate culture. However, I don't know whether I would be able to employ so much verbiage in a descriptive linguistics course. It seems rather specific to me.

Dr. Zilch: It isn't possible that you are contemplating taking up this study, is it? My dear Miss Ferrell, I assure you, you are really too much of the beaux arts type for this aboriginal linguistics, but--my apology to you, Dr. Thompson. I really do not want to discourage an apparently recent proselyte to your system.

Bill Downing: Excuse me for interrupting again, but you were talking about the ways in which words are formed for new items in culture, yet you didn't mention the possibility of constructing a word out of thin air, simply inventing something absolutely new.

Dr. Thompson: Strange as it may seem, such words are quite rare. Kodak appears to be one such artificially constructed word. At least it doesn't come from any foreign language, and it doesn't represent any morphemes that we can recognize in English.

Dr. Zilch: I have often heard it said that the speakers of aboriginal languages often do not understand exactly what they say themselves. There is evidently a great lack of preciseness in their languages. Perhaps there is a good deal of inventing out of thin air in their words.

Dr. Thompson: I should think that you would have been convinced of the falsehood of that type of statement from the grammatical structure that we have discussed so far.

Dr. Zilch: No, this is quite different. It has to do with the lexical phase of the problem and the meaning of words. Those who have worked with such languages imply that there is considerable looseness of meaning.

Dr. Thompson: Your contention does demand a word of explanation.

Dr. Zilch: More than a word, I feel. You are rather too much inclined to pass things off as Q. E. D. without enough proof. You'll find me a rather stubborn antagonist.

Dr. Thompson: Of course, I realize that I haven't proved

anything. I've only been suggesting some contradictory evidence to some of the matters which you have proposed. However, the impression of "looseness of meaning" results from the fact that words are not points of meaning, but areas of meaning; and all languages divide up phenomena into different areas.

Dr. Zilch: What do you mean by this "areas of meaning"? "Point preciseness" is what I teach.

Dr. Thompson: To answer this question, what would you say the meaning of red is?

Dr. Zilch: Well, well, it is anything that is red,--er--uh--well--.

Dr. Thompson: Even that isn't too precise for an English rhetorician. What about Miss Ferrell's blouse? Is it red?

Dr. Zilch: Indeed so.

Ann Ferrell: But it's really "burgundy," Dr. Zilch.

Dr. Zilch: But that is red, positively!

Dr. Thompson: Well, what about the trimming on the girl's hat over to the left of the counter? What color is it?

Dr. Zilch: Why, that is red too.

Dr. Thompson: What would you call it, Miss Ferrell?

Ann Ferrell: I would say that it is "cerise."

Dr. Thompson: Then what about the scarf worn by the young lady by the window?

Dr. Zilch: Red. Quite red in fact!

Dr. Thompson: What is your verdict, Miss Ferrell?

Ann Ferrell: Well, we girls would call it "vermilion."

Dr. Thompson: I suppose that you would say my tie is red, would you not, Dr. Zilch?

Dr. Zilch: Right.

Dr. Thompson: But my wife informs me that it is "rust." What

is your judgment, Miss Ferrell?

Ann Ferrell: It most surely is "rust."

Dr. Zilch: To think of it, here I say that four things are red, and feminine usage and judgment call them "burgundy," "cerise," "vermilion," and "rust." My word, but women insist on a different vocabulary from us men. You would almost think that the women possessed a different language. I am coming to see that there may be some place in linguistics for a woman, namely, to interpret this feminine language which has arisen.

Dr. Thompson: I fear you over-estimate the differences, but it is reported that among some of the Carib Indians the men speak one language and the women speak another language, presumably an Arawak dialect. The tradition is that the Carib men killed off the Arawak men of a tribe and took the women for themselves. In the meantime the men and the women have kept their respective languages. The Chiquitos, an Indian tribe in Bolivia, are reported as having quite different grammatical forms for the women's dialect of the language as compared with the men's. We do know that the Yana Indians of California have quite extensive differences of form between the women's and the men's language. There is a "feminine" aspect to almost any type of study.

Dr. Zilch: But what do these differences in the use of red have to do with the area of meaning of a word?

Dr. Thompson: It should be quite obvious that the area of meaning of red is much greater in your vocabulary than it is in Miss Ferrell's. If we chart the colors of the spectrum, your word red is going to cover a wider area than Miss Ferrell's red. Moreover, it is going to be difficult to know exactly where red leaves off and some other color begins. These words designate not points on the spectrum but areas.

Dr. Zilch: But what about the aboriginal approach to this problem that we began to discuss?

Dr. Thompson: We are coming to that now. In the Maya language there are six principal color words which may be roughly translated as 'black,' 'white,' 'yellow,' 'green,' 'blue,' and 'red.' All colors may be classified as one of these six.

Dr. Zilch: But there is no word for 'brown.' What do they do in such a case as that?

Dr. Thompson: It depends upon the shade of brown. If it is a reddish brown then it goes under 'red.' If it is a greenish brown then under 'green,' and so forth.

Dr. Zilch: Evidently there is no word for 'purple' either.

Dr. Thompson: No. If it is a dark purple, it will go as 'black,' and if reddish, as 'red.'

Dr. Zilch: But what if the people want to be specific about a color?

Dr. Thompson: They can do that even as we do. They can say that it is like something else having a particular color.

Dr. Zilch: No wonder that investigators have thought that aboriginal peoples have very limited vocabularies and speak with considerable looseness of meaning.

Dr. Thompson: On the other hand, in some areas of meaning, these languages make far more detailed divisions of natural phenomena than we do. Consider what occurs in the Chontal language of Oaxaca. What we normally translate as 'receive' occurs in five different stems: the first means 'to receive seeds' which must be ground before being consumed, as in the case of coffee beans or corn. The second stem means 'to receive a liquid,' the third 'to receive a small object,' the fourth 'to receive food,' and fifth 'to receive animate objects,' such as a horse, pig, or person. Accordingly if a person receives coffee beans, the first stem would describe the action. If the coffee is ground before being received, then the fourth word denotes the action of receiving; but if the coffee has already been brewed, then the second word is employed. One language will divide natural phenomena in one way, and another language in another way. It is all a matter of linguistic perspective.

Dr. Zilch: That is exactly the difficulty. I am amazed. A man with your evident background and training seems to have no rigid standard, no summum bonum, no traditional authority. You seem to look at all cultures alike. This is a rather curious thing for one to do. It surely marks a definite cleavage between your attitude and mine.

Dr. Thompson: There is no doubt about that.

Dr. Zilch: I realize that in many ways I have kept you talking more about anthropology than about linguistics. Excuse me for diverting you so often.

Dr. Thompson: No apology is necessary. After all, anthropology and linguistics are very closely related, in fact, to some extent identical. When we analyze the culture of a people, we discuss the way in which these people adapt themselves to their physical environment. This we call the material culture. A people's adaptation to one another is the social culture. The adaptation to the supernatural is the religious culture. There is an additional phase which is found in all these, namely, the esthetic.

Dr. Zilch: I have never heard esthetics discussed by anthropologists as a separate item of culture.

Dr. Thompson: The importance of this phase is only gradually being appreciated.

Bill Downing: Where does the study of the language fit into this picture?

Dr. Thompson: This comes as the fifth phase of culture.

Dr. Zilch: My word! How the anthropologists do take in everything! But why do you so consistently refer to anthropological attitudes and views?

Dr. Thompson: This is because of the fact that one's anthropological views inevitably dictate one's attitude toward linguistics. That is precisely why we haven't been able to separate them in our discussion. We couldn't have done this if we had tried. We haven't been wasting time or going far afield by discussing anthropological implications. This is very much in line with Miss Ferrell's request to know more of what the course is all about.

Dr. Zilch: All that you say, Dr. Thompson, may be very true, but for the life of me, my academic proclivities and erudite sensibilities cannot refrain from being grievously affected when I think of bringing illiterate aboriginals into the sanctum of this place of learning to utter their crude guttural sounds, not simply as a curiosity to the students, but as an object of serious study by such fine students as Bill here. When illiterates become teachers, what place is there for rhetoric, the queen of the arts? What new things you primitivists will contrive!

But excuse the swan song of a nineteenth century rhetorician. Perhaps I should have been gathered to my fathers before this, but be that as it may, I really would like to know just what this course is going to include.

Here, Ann, you take over the conversation. I've interrupted it far too much already. However, I fear that if Dr. Thompson continues to make such flagrantly unclassical remarks as some I have heard this afternoon, I may have to re-enter the discussion. Hence, accept my apology now.

Ann Ferrell: You need not apologize, Dr. Zilch. It was a great deal nicer having you ask the questions and give the answers.

Dr. Zilch: Well, you go ahead.

Ann Ferrell: All right. First, Dr. Thompson, just what do you mean by "descriptive linguistics"?

Dr. Thompson: Exactly what the word implies. It is the science of describing languages, and in this we pay no attention to the history of the language.

Dr. Zilch: Excuse me, but this is incredible! Ignoring the tradition of history. Nothing is in its proper light without its history. But forgive me, I intruded again. I was sure I could refrain for a little while, at least.

Dr. Thompson: But it is a good question you introduce, Dr. Zilch. However, tell me how you would study the history of the Comanche language, when we have no documents of the language that are more than a few decades old at best. It does not have a recorded history.

Dr. Zilch: But it must have had a history.

Dr. Thompson: You're right. The fact that I'm a man presupposes that once I was a boy, but if there were no eyewitnesses to any facts about me and no documents about me, and if I remember nothing about myself that I can relate, then a historian wouldn't be very likely to want to reconstruct my past with no evidence on hand. In many ways unwritten languages are like that. There is no history, and the changes that have taken place have been so gradual that the speakers are not usually conscious of them.

Dr. Zilch: But the functioning of a language is all tied up in its history. Consider the situation in English. How can you describe English without pointing out that preach is actually a compound word?

Bill Downing: How do you mean that, Dr. Zilch?

Dr. Zilch: Do you not remember, Bill, how I pointed out in

English Rhetoric III that preach comes from Latin praedicare 'to proclaim.' The history of our language always comes in the fourth week of the course.

Bill Downing: I'm sorry; I had forgotten.

Dr. Thompson: By the name compound we normally designate combinations in which we can recognize free constituents, for example, such words as blackbird, greenhouse, and breakwater.

Dr. Zilch: But that is what is wrong with your denial of the value of historical studies. You are not able to recognize the 'mutated compounds,' such as preach.

Bill Downing: I would call them 'amputated,' for there is nothing but the torso left, and that can only be identified by examining scars left by previous operations.

Dr. Thompson: It seems to me that it would be safe to consider that preach comes in the same class of words as teach in English.

Dr. Zilch: But by doing so you destroy that esoteric appreciation of the language.

Dr. Thompson: Then we will have to conclude that languages do not function on an esoteric basis. I am quite convinced that one can speak English adequately and effectively for all social situations, and not know a thing about the history of the language. He might be able to use the form oxen and not realize that the -en formerly belonged to the stem of the word, and that the singular form ox is actually less than the historical stem.

Dr. Zilch: Perhaps he could speak English, though I would venture to suggest, rather inadequately; but remember, my dear Dr. Thompson, "The unexamined life is not worth living."

Dr. Thompson: Well, in this case, we'll leave it to the antiquarian to receive his compensating joy for all his efforts.

Bill Downing: But Dr. Thompson, what about comparing other related languages? Don't we do this in describing a language?

Dr. Thompson: We may, but if we do, we are dealing with comparative linguistics. Descriptive linguistics attempts to describe a language as a functional unit, quite apart from possible affiliations with other similar languages.

Dr. Zilch: My word! How you do try to circumscribe knowledge! If you restrict yourself much more, Dr. Thompson, you'll be the veritable apostle of "learning more and more about less and less until you know everything about nothing." For myself, I would choose the course of the polymath, 'the learner of everything.'

Dr. Thompson: I presume that ultimately there isn't much difference between knowing everything about nothing and knowing nothing correctly about everything.

Dr. Zilch: Perhaps I should have refrained from my rejoinder. It is just a Victorian scholar's reaction to novelty. But actually, Dr. Thompson, there is a part of me (I confess a rather small part) that is quite intrigued by all this newness.

Dr. Thompson: Well, as I was saying before we took time off for a little verbal jostling, we also leave comparative studies out of a descriptive analysis. We do not, for example, point out in analyzing English that stool is an Anglo-Saxon root, and that chair comes in with the Norman-French, that algebra is from Arabic, geometry from Greek, fossil from Latin, thug from Hindustani, macaroni from Italian, caravan from Persian, bamboo from Malay, and tepee from Sioux. One can speak English every bit as well without knowing these facts.

Ann Ferrell: Well, if descriptive linguistics doesn't deal with the history of the language or other related languages, it certainly is not what I thought it was. I thought surely we'd be tracing the history of words, as we do in classes in rhetoric.

Dr. Thompson: Your idea of linguistics is not far different from most people's. They have the idea that it deals with etymologies and so-called "correct" usage. But descriptive linguistics deals with neither of these.

Dr. Zilch: Is it possible that I heard you say that you do not consider problems of correctness in speech? Then you cast out completely my own science and art, rhetoric.

Dr. Thompson: I fear that is what we do. For we do not describe what people ought to say, but what they do say.

Dr. Zilch: Then you describe much error.

Dr. Thompson: It is no doubt error from your basis of judgment, but we will all admit that it is usage.

Dr. Zilch: Such blatant non-conformity! But go on with the description of the method.

Dr. Thompson: Surely. You might say that a descriptive linguist is like a botanist who sets out to describe all the vegetation within a given area and to point out the functional relationships of the vegetation to the general terrain. Of course, there are some historical observations that a trained botanist can make. He knows, for example, that deciduous forests generally follow coniferous forests. In the same way the linguist finds that [t] may change to [š] because of a front vowel, as illustrated in educate and education. On the other hand the reverse process of [š] changing to [t] is by no means a regularly observed process. The descriptive linguist points out what is a historical process in the [t] becoming [š], but he would not point out that the [č] in chin was formerly [k] and had become [č] by this process of palatalization. The descriptive linguist would have no occasion to point out this change, because the stem chin never occurs with a [k] sound in any derivative.

Dr. Zilch: But why should not one point out every thing that he knows about every word as he goes?

Dr. Thompson: This tends to produce a very conglomerate sort of picture. We try to organize all material from a functional viewpoint. Shifting from one viewpoint to another produces a distorted picture. This is something like drawing a picture. In order to make everything appear real, we must maintain one point of view. That is to say, the basic lines of the perspective must all go toward one point. If we should change viewpoints while drawing the picture, the landscape would surely not look real. It is better to draw another picture, if we want to change viewpoints. That is why it is important to be constantly aware of our point of view. Comparative, historical, and descriptive linguistic data should not be mixed indiscriminately in the same picture.

Ann Ferrell: But what about the botanist? You must have had something more to say about him.

Dr. Thompson: Several things, in fact. First, to make a comprehensive study he analyzes every plant. Some little saxifrage clinging to almost barren rocks is as significant to the botanist as the tall, beautiful trees. The botanist isn't like the amateur nature-lover, who is only looking for spectacular things, nor does the botanist restrict his interest to rarities. Some people will go into the woods and spend

hours looking only for lady-slippers or tiger-lilies. Similarly some linguists only take delight in delving into some linguistic forest to come out with some rare beauty comprising a relatively unknown linguistic phenomenon, but in doing so they have often completely overlooked significant materials which give this rare item all its functional importance. The botanist has to take into account sunflowers and daisies and a good many plants whose flowers are so inconspicuous that the average person never looks at them.

Dr. Zilch: It appears that finally you're implying that descriptive linguistics does have some content.

Dr. Thompson: This is one of its great problems. Its content is so stupendous. It would be impossible for a person to make a comprehensive description of Modern English in a lifetime given to the study of it.

Dr. Zilch: My word! I had thought that in the course which I offer in rhetoric, we handle English more or less adequately, and yet I do confess that there have been a few small points on which I have bestowed much perplexing thought.

Dr. Thompson: You'll be a descriptive linguist yet, Dr. Zilch. But back to our botanist. He doesn't go about his task with any preconceived ideas of what he is going to find in any examination of an area. Furthermore, he hasn't come to tell the hills what sort of vegetation they should produce, nor is he there to see to it that the vegetation is changed. He has come to describe what he finds. That is all.

Ann Ferrell: The botanist surely does have a great deal of technical terminology. My, what a headache botany was for me! Is linguistics as bad?

Dr. Thompson: Fortunately, it is not. However, we must have some technical words for types of data which we discover in languages.

Ann Ferrell: But if the botanist is working in more or less unexplored territory, he is likely to find an entirely new plant. In such an event he simply gives it some made-up name. Is that what linguists do?

Dr. Thompson: Precisely. If one investigates these unwritten languages which no one has studied, he is likely to find quite a few new features, especially in the types of ideas expressed by classes of affixes.

Dr. Zilch: My dear man! Do you really mean to say that the great literary languages of the western world do not contain all the worthwhile categories of thought?

Dr. Thompson: Dr. Zilch, you will have to visit the class after a few weeks and see what is happening in the study of an aboriginal language. Perhaps we'll have the opportunity to discuss some of these factors at a later time.

Dr. Zilch: Good! I shall be glad to. But tell me, how is your course divided? I suppose that you spend most of the time studying phonetics. I remember that they were beginning to teach that subject when I was in the university.

Dr. Thompson: Phonetics is a comparatively small part of the course.

Dr. Zilch: But you have to be able to record the sounds of these strange exotic languages, do you not? I imagine that you have to learn as many as a hundred sounds, if you are to be an expert.

Dr. Thompson: You are rather conservative, Dr. Zilch. We actually analyze several hundred sounds in the course, learning to record and reproduce them.

Ann Ferrell: But do we have to learn several hundred different symbols? That would be awful.

Dr. Thompson: No indeed. We employ the regular roman letters for the basic sound types, but by adding diacritical marks we can distinguish many different types.

Dr. Zilch: What do these sounds look like then?

Dr. Thompson: If one of you will lend me a scrap of paper, I'll show you some of the signs that we may add to a p to indicate different phonetic values.

Ann Ferrell: Gladly. Here, use this sheet.

Dr. Thompson: Thank you. Here are some of the more common combinations of p with the diacritical marks:

[p], [p̄], [ʻp], [pʻ], [p̓], [pˀ], [pˤ], [p̀], [ṕ], [p̰], [pʷ], [p̱], [pʸ], [p̠], [p̲], [pˀ], [pʷ], [p̄], [pʸ], [p̀], [p̰], [p̓ʷ]

The [p] indicates that we are dealing with a bilabial

voiceless stop. If we put a line [-] through it as in [p̶], we indicate that the bilabial is a continuant. The reversed apostrophe [ʻ], depending on its location, indicates aspiration either before or after the stop. The single apostrophe [ˈ] indicates synchronous glottalization of the stop. The symbol [ʔ] indicates egressive pharynx air following the stop, and [ʕ] indicates ingressive pharynx air. Similarly, an arrow pointing right [ʾ] indicates egressive mouth air and the symbol [ʿ] indicates ingressive mouth air. A curve below the letter [‿] shows labialization in which the resultant sound comprises only one segment. The raised [ʷ] is used when two segments are formed in the sound. The mark [ʲ] indicates palatalization with one segment and the raised [ʸ] is employed when there are two segments in the sound. Nasalization is indicated by [̃] and pharyngealization by [ˠ]. These are the principal types of diacriticals. But one can readily see that with the various potential combinations it is possible to indicate a great variety of sounds which may occur in any language. Not all linguists employ diacriticals in precisely this manner, but any system may be used if one defines the values accurately and is consistent.

Dr. Zilch: The texts which you publish in these aboriginal languages must look grotesquely complicated with all these strange sounds and fine shades of distinction in sound.

Dr. Thompson: Surprisingly enough that is not the case. Phonetics consists in the analysis of all the fine distinctions of sound, but phonemics constitutes the methodology of analyzing the features about these sounds that 'count.' Phonetics elaborates all the distinctions, and phonemics simplifies, choosing just those sound features which have significance for the language in question. Phonemics is the science of proper alphabet construction. As a friend of mine, Dr. Pike, has said, "Phonetics gathers raw material. Phonemics cooks it."

Dr. Zilch: I'm glad to hear you discuss phonemics, for I have been wondering for some time what it was all about. You evidently consider phonetics and phonemics as quite separate, do you not? But are they equally important?

Dr. Thompson: Indeed, the two subjects are different. As to the matter of the relative importance of phonetics and phonemics, I would say from investigating problems involving translations into various aboriginal languages that phonemics is of even greater significance to the linguist than phonetics.

Dr. Zilch: What types of problems do you find, for example?

Dr. Thompson: Consider a situation which arose in checking the orthography of Yipounou, a Bantu language of the Gabon. Three different letters had been employed for one and the same sound unit, which was a voiced velar continuant and which may be written phonetically as [g]. Before the vowel [u] this voiced continuant somewhat approximates the English [w], and before an [i] the sound is somewhat like English [y]. Before all other vowels the sound is more like English [g]. Hence the traditional orthography employed [w], [y], and [g] to symbolize what is one single unit in the Yipounou. But the difficulty consists in the fact that there is another sound also written as [w] in the language, as well as another [y] sound. Mistakes of this type make it exceptionally hard for natives to learn to read their own language. To teach natives to write their own language is a much more difficult task when one has arbitrary distinctions in the language made only because the orthography employs distinctions which have significance in English, but not in the aboriginal language.

Bill Downing: I'm beginning to see some light on the situation. I recognize now why you insisted on excluding comparative linguistic material. Evidently the object is to describe a language on the basis of its own system and that alone.

Dr. Zilch: I can see somewhat how you can prepare students for the study of the sounds of all types of languages, but how you can give students an adequate introduction to the grammar of all types of languages is quite beyond me. You certainly cannot know all the types of languages in the world, can you?

Dr. Thompson: We most surely do not. Furthermore, we do not attempt to give an introduction, first, to Oriental languages, then to Polynesian, Indian, African, Hyperborean, etc. Our procedure is to analyze the basic methodology whereby we may describe all the various types of features that we find in any kind of language.

Dr. Zilch: How do you go about that?

Dr. Thompson: In the first place we study the formation of words in all sorts of languages. This study we call morphology. Our second main subject is the analysis of constructions involving these words. This second study is syntax.

Dr. Zilch: But are there not unlimited possibilities in the formation of words?

Dr. Thompson: In a certain sense that is true, just as there are an unlimited number of pieces that can be composed and played on the piano, but all these pieces will follow certain principles of construction involving rhythm, harmony, and tone. Hence, even as there are a limited number of principles of music construction, so there are a limited number of processes of word construction, which will be found to exist wherever there are words.

Bill Downing: What are these?

Dr. Thompson: We can consider them as being of four basic types: (1) addition, (2) multiplication, (3) subtraction, and (4) change.

Ann Ferrell: That sounds almost like mathematics. But in linguistic terms what do they mean?

Dr. Thompson: I have given them mathematical names, so as to point out the exclusive nature of the system. The first process, addition, includes (1) the adding of two or more stems together, in which case one has compound words, such as blackbird and greenhouse, or (2) the adding of affixes to stems, in which case we have words such as retake, misinterpret, and fulness.

Ann Ferrell: How many types of affixes can you have?

Dr. Thompson: As many types as there are places where these may be added to the underlying form. If they are added at the beginning, they are called prefixes, if at the end, suffixes, and if within the stem, infixes.

Bill Downing: What does multiplication include?

Dr. Thompson: This is more commonly called reduplication. But since multiplication involves adding the same unit one or more times, so reduplication involves adding part or all of the same unit one or more times. We do not employ reduplication in English, except in what we may call "reduplicative compounds" such as putt-putt and choo-choo. Greek, however, has a considerable amount of reduplication. Reduplication is also employed considerably in the San Blas. For example, the stem mu·a means 'to rise and fall gradually.' Mu·amu·a indicates the rising and falling of a boat riding large waves. Mu·amu·amu·a indicates the motion of a small object riding ripples in the water.

The third process, called "subtraction," is also termed

"minus-feature" in some systems of analysis. It is not very common but can be easily understood. In the same way that it is significant to add some feature to a stem to indicate some new derivation, so it is significant to drop a part of the stem. Instead of adding a suffix to indicate the past tense, a language may equally as well drop the last phoneme of the stem. A loss is every bit as significant as an addition.

Dr. Zilch: That makes sense, all right, though it is somewhat of a novelty. But what about the last process?

Dr. Thompson: Under change, we may note first the change that occurs to the phonemes which we call segmental. These are roughly the letters which we write along in a line, indicating the segments of the continuum of speech. We can have changes involving the quantity of these phonemes making long vowels out of short vowels, or vice versa; and making long consonants out of short ones, or the reverse.

Bill Downing: I have never heard of long consonants.

Dr. Thompson: Well, in Hebrew this process of quantitative modification of the consonant occurs in what is called "gemination," or "twinning." The failure to recognize length may be disastrous at times. It is reported that a missionary in Africa speaking a Bantu language failed to recognize the long quality of an initial m, and it so happened that he likewise failed to render the pitch accurately in the same utterance, so that he declared in the native language that 'The children of Israel crossed the red mosquitos and swallowed Moses.'

Dr. Zilch: It is amazing how much difficulty one could get into without a little knowledge of linguistics, is it not? But isn't it possible to modify these phonemes you speak of in a qualitative manner as well as a quantitative one?

Dr. Thompson: Indeed so. That is the other means of modification. No doubt you were thinking of what occurs in so many of the Indo-European languages where there are qualitative changes in the vowels of the stems as in sing : sang : sung and run : ran.

Dr. Zilch: Precisely. But tell me; do any languages modify consonants qualitatively, as we do the vowels?

Dr. Thompson: Yes, they do. The Chichimeca language of Mexico illustrates this tendency. It has alternation of the

consonants as well as vowels.

Bill Downing: Are there any other types of change?

Dr. Thompson: Yes, there are changes which occur in the suprasegmental phonemes. These phonemes are elements of sound that go with other segmental phonemes. These suprasegmental phonemes include predominantly the stress and the pitch, and in some cases length. In English we have changes in the suprasegmental phoneme of stress when we alternate in stress between the verb and noun forms in such words as rebel, contract, and insert. The verbs are stressed on the second syllable and the nouns on the first syllable.

Dr. Zilch: But do you mean to say that when you have covered these processes you have dealt with all the processes that any language in the world will use in forming words?

Dr. Thompson: That is precisely right.

Dr. Zilch: Is this all the course then?

Dr. Thompson: By no means! We have to recognize not only the various processes, but also how the various units combine to make up words, namely, the order in which they combine, the type of constituents which may combine, and the changes which may take place when they do combine.

Bill Downing: What else is there to be done?

Dr. Thompson: Finally, we line up all the classes of words which we have in a language and arrange the description of these in the form of a grammar.

Dr. Zilch: This then constitutes the morphology of descriptive linguistics?

Dr. Thompson: That is right. But I suggest you look into the textbook if you are interested. There you'll find the basic outline of the procedures.

Dr. Zilch: Do you employ the same procedures for syntax?

Dr. Thompson: Practically the same. Here we learn to describe any combination of words on the basis of (1) the order of combination, (2) the type of constituents combining, and (3) the changes that take place in such combinations.

Dr. Zilch: Would you illustrate?

Dr. Thompson: Indeed. Consider the construction a man. This is made up of two constituents, a and man. We state the order by saying that a precedes man. We state the type of constituents involved in the construction by noting that man belongs to a class of words called nouns and that a belongs to a class of words which we may call "determiners." They are a special type of "adjective." We consider these determiners a special type because they do not occur in the same order or constructions as adjectives such as good, bad, and tall. Finally, we state the changes which take place when constituents come together by noting that a occurs before a word beginning with a consonant, but an, an alternate form of this same word, would occur if the following word began with a vowel, as in an apple. We would probably want to say that a modifies or is attributive to man, and as such we call it an "endocentric" construction.

Dr. Zilch: In a grammar, would you discuss each one of the possible combinations of words?

Dr. Thompson: Yes, but we would do this by classes of expressions. Just as we discuss the formation of words by patterns of formation, we do the same in syntax.

Dr. Zilch: I must admit that this begins to appear as though descriptive linguistics has some system to it, though, of course, I am not convinced that you are right in your system. I shall want to discuss some of these matters with you some other time. But right now I want to know how you find out all about these languages from your native informants. Do you ask them to give you all the nouns of the language, and then all the adjectives, and the verbs, and so forth through the various classes of words?

Dr. Thompson: Most decidedly not! The natives haven't analyzed the grammar of their language any more than an English-speaking schoolboy has.

Dr. Zilch: You do not have to limit this to a schoolboy. The college student is in the same woeful category.

Dr. Thompson: Well, be that as it may, we cannot expect the native to have analyzed his language. What we do is to ask for simple words which may be the names for such objects as 'house,' 'horse,' 'boy,' 'girl,' 'tree,' 'bush,' 'flower,' 'sky,' 'sun,' and 'moon.' Then we often find out how to say 'my house,' 'my horse,' 'your house,' 'your horse,' 'his house,' 'his horse,' etc. This provides us names for practical objects and the means of denoting possession of such

referents.

Dr. Zilch: Don't you ask for verbs?

Dr. Thompson: Yes, that normally comes next in the materials.

Dr. Zilch: But how do you know what forms in the paradigm to ask for?

Dr. Thompson: We do not know at first. We have to 'feel' our way into the structure of the language. Gradually the language begins to unfold.

Bill Downing: But why doesn't one make a complete study of the phonetics and phonemics before going on in the language work?

Dr. Thompson: This cannot be done. The language is a unit and a system within itself. The phonemics, the morphology, and the syntax all fit into this system. Every fact is related to other facts regardless of what point you may have under consideration. There are features about the phonemes, and particularly about the intonation, that we may not discover until we have progressed a great way in the grammatical analysis.

Bill Downing: It appears that one has to jump into the language all at once and begin swimming, even though he doesn't know how deep or how large the pool is.

Dr. Zilch: Precisely! If all the facts are interrelated into a single whole, you can't expect to make a very comprehensive statement about anything before examining practically everything.

Dr. Thompson: You're absolutely right. You sound like a philosopher. In any unitary system one has to know everything about everything in order to know anything completely. So it is with a linguistic system. Our approach is to make successively more comprehensive statements of the relationships.

Dr. Zilch: I am gradually beginning to see that you do have a system of analysis and that you know where you are going, even if it is not in the right direction. However, I see that it is far too late for us to determine that question now. I trust, Dr. Thompson, that I may have the opportunity to discuss some of these matters with you again, for I would like to point out to you some of the things in which I am sure your circumscribed approach is lacking. This is especially true of your avoidance of the more historical method

of handling grammatical details.

Dr. Thompson: You may be right. At any rate, I shall be most delighted to chat with you again.

Interlude 2

ZILCH AND THE GOLDEN AGE OF ENGLISH

Dr. Zilch: I fully appreciate your interest in the linguistic novelties of this descriptive approach, but in disregarding the historical patterns, as I mentioned the other day, you are in great danger of error. What about the persistent use by the modern generation of It's me instead of the logically correct and the rhetorically acceptable It's I?

Dr. Thompson: But why do you contend that It's I is correct, Dr. Zilch?

Dr. Zilch: That is very easy to see. First, it is logical to use I instead of me. I is the logical subject, and to use me would contradict the basic pattern of the Indo-European languages, which all recognize the principle that the subject case is the nominative.

Dr. Thompson: A person is likely to think this if he examines only the so-called "logical" aspect of the problem, but when one actually examines the languages, there are contradictions. How, Dr. Zilch, would you say It's I in French?

Dr. Zilch: Indeed, of course, it would be C'est moi. Oh, oh, I realize there is a contradiction in the moi.

Dr. Thompson: You are right. In fact, you've discovered the problem yourself. In French a so-called "object" form is used, namely, moi, which corresponds to me in English. French would never have *C'est je, corresponding to English It's I.

Dr. Zilch: I must confess that this French illustration violates the laws of logic.

Dr. Thompson: I am not so sure that it does. It seems to me that it illustrates them.

Dr. Zilch: But regardless of the logical issue, would you not prefer the form which is historically correct, rather than some innovation which breaks with the accepted historical tradition?

Dr. Thompson: I fear I would not, and I believe that I can answer the matter of logic and the one of historical precedence at the same time.

Dr. Zilch: How is that? To violate basic logic and throw over historical tradition all at once is no small matter.

Dr. Thompson: Consider the Old English form iċ hyt eom, literally 'I it am.' If we insist on the historical argument, why not go back to this?

Dr. Zilch: Of course, we don't recommend this.

Dr. Thompson: By Chaucerian times, the accepted form was It am I. This would be in line with your argument of logic, for if I is the logical subject, why doesn't the verb agree with the subject?

Dr. Zilch: Yes, but this interpretation doesn't recognize the value of the expletive it.

Dr. Thompson: Of course, as forms change in usage, then one can always have grammatical explanations to account for these changes.

Dr. Zilch: You are right. But it is one thing to account for It is I, but to try to justify It's me seems to be quite a different matter.

Dr. Thompson: It is a different matter because many traditional grammarians haven't attempted to analyze it.

Dr. Zilch: We recognize that It's me is used, in fact all too prevalently, but we are obliged by the very logic of our science to condemn it.

Dr. Thompson: I am not so sure that you should.

Dr. Zilch: How is that?

Dr. Thompson: In the first place, one way of rendering an expression is not necessarily any better than another. Which is basically more correct for conveying the required meaning, iċ hyt eom, It am I, It is I, or It's me?

Dr. Zilch: If you insist, I must admit that one is as good as another for conveying the sense, just as there is no basic difference in value between German Pferd, Spanish caballo, and English horse. But esthetically there is a good deal of

difference.

Dr. Thompson: Of course, I imagine that you prefer English horse and the older It is I, as is found in the Coventry Mysteries. But before we get to the analysis of the esthetic element, let us clear up two things. First, just because a form is historical is no indication that it is correct today. Is that right?

Dr. Zilch: I must admit that we wouldn't want to go back to the Old English or the Chaucerian form.

Dr. Thompson: Good! The next point is that any one form is essentially as good as another, if it adequately conveys the response of the speaker to the situation.

Dr. Zilch: That must be admitted, or we would rule out the value of foreign languages. But still you haven't dealt with the esthetics, which is most important.

Dr. Thompson: We're coming to esthetics right now. First, where do you get these esthetic impressions, so to speak?

Dr. Zilch: It is my basic training in logic which reacts violently to the situation.

Dr. Thompson: I am not so sure of this. However, let us take up this so-called "logical" aspect of the forms. First, in iċ hyt eom, the iċ is in the nominative form. It is subject and precedes the verb. In It am I of Chaucer, the I is still subject, as indicated by the verb form which agrees with it, but in It is I there is something new which we begin to recognize. The it which occurs before the verb is in the so-called subject territory and begins to function as the subject. Hence, the verb is made to agree with it. I on the other hand is in so-called object territory following the verb. It is the pressure of this pattern, which, after all, is a very "logical" matter, and which constitutes the basis for the expression It's me.

Dr. Zilch: I suppose that by this same "logic" of yours you could justify that atrocious error made by so many in saying, Who did you see? In other words, just because the interrogative pronoun comes before the verb, it is given the nominative form, even though it is the object.

Dr. Thompson: Really, you catch on amazingly well, Dr. Zilch. The explanation that you have given is exactly the right one.

Dr. Zilch: But if I employed that type of reasoning, I would be permitting all types of rhetorical blunders.

Dr. Thompson: I fear that you are fighting a losing battle then, for these linguistic changes or "blunders," as you insist on calling them, are going to come, and have come, despite the noble work of the rhetoricians.

Dr. Zilch: But I consider myself as one spear-heading the advance for more sane, logical categories of language, the bringing back of the golden age of English usage.

Dr. Thompson: I'm afraid that you are doomed to disappointment. At best you are fighting a delaying action, which may retard only slightly the advance of linguistic change.

Dr. Zilch: Perhaps the elements of logic, history, and esthetics do not completely satisfy you, Dr. Thompson, but I am confident that there is absolute need for one to define the usage and make very authoritative statements about what is the accepted usage.

Dr. Thompson: I am glad that you put in something about "accepted" usage. That is the key.

Dr. Zilch: How do you mean that?

Dr. Thompson: You realize, of course, that there is an "accepted" jargon of the East Side of New York, and an "accepted" dialect of the rural Negro of the South, even an "accepted" dialect of the elite of New England.

Dr. Zilch: You show very poor judgment in putting all those dialects together. How can you contend that all are correct? You mention first such a dialect as the East Side New York with its boid for "bird," goil for "girl," and even such monstrosities as toity-toid and toid, for "Thirty-third Street and Third Avenue." Then you bring in the Negro speech of the deep South, and finally you had the audacity to put the refined New England speech in the same category. Surely you do not mean that all these are "accepted" and "correct"?

Dr. Thompson: I mean precisely that. These dialects we mentioned are "correct" and "accepted" in a certain sense of the words. Speakers of the East Side New York dialect recognize the correct patterns of their speech by contrast with the speech of others. They can spot a person who does not speak as they do, just as readily as we can recognize a person who does not speak the same way as you and I do. In other words,

certain linguistic patterns of sound, choice of words, and grammar are characteristic of this dialect, and these are "acceptable" to the speakers of this dialect. Moreover, these usages are "correct" for this dialect. Accordingly, we may have a "correct" East Side New York dialect, a "correct" Alabama Negro dialect, and a "correct" New England dialect. That is to say, usages which conform to the pattern of any dialect are correct for that dialect.

Dr. Zilch: But still you wouldn't call any of these dialects "correct" English, except, of course, the New England dialect. But really I do not like to call this New England speech, a dialect of English. It is really the English, the correct English.

Dr. Thompson: For the time being, at least, let us be content to classify it as a dialect, and recognize that it has a correct norm, even as other dialects have a correct norm. Your reason for feeling that the New England dialect is more "correct" is that it is acceptable in a greater area of society than the East Side New York dialect or the Alabama Negro speech.

Dr. Zilch: Indeed, in this matter of "accepted" you are quite wrong.

Dr. Thompson: No, I believe not. But let us consider this further. We said that each of these dialects is accepted within the group of speakers that use this type of speech. If such speech were not accepted, people would not be likely to employ this as a means of communication. However, the social areas in which the East Side New York dialect and the Alabama Negro dialect are acceptable, are quite limited. However, for New England speech, all English language groups of the United States accept a speaker of the New England norm as being one who speaks a so-called "approved" type of English, even though a New Englander often suffers from a good deal of ridicule for leaving off the r many times when it occurs in the standard written form of English and for inserting it frequently where it does not occur in the written form.

Dr. Zilch: Yes, I know that is true, but is not the New England speech accepted because it is intrinsically better than the other two dialects you mentioned? Of course, for myself I would say that it is better than any of the other American dialects, as you call them, but I know that it would not do any good to try to argue that point with you.

Dr. Thompson: Undoubtedly not, but I would even object to the

point that the dialect of New England is even "intrinsically better," as you put it, than either of these other two dialects. Of course, we have to omit the literary history of New England. The point under consideration is simply the matter of the form. Just what do you think makes the New England dialect "intrinsically better," Dr. Zilch?

Dr. Zilch: That is very easy to answer. It is the speech of cultured, refined people.

Dr. Thompson: Your answer is actually the answer to the entire problem. New England speech is more "correct," more "acceptable," "intrinsically better," and all these things, simply because the speakers of the language are more cultured and refined. That doesn't answer a thing about the language itself. It simply means that New England speech becomes acceptable on the basis of the people who speak it. In other words, we associate New England speech with people who have a degree of refinement, adequate education, comparatively pleasant manners, and an interesting heritage. With such people we do not mind associating. On the other hand, many people consider the speakers of the East Side New York "boid" dialect as rather uneducated, noisy, garlic-eating, and uncouth—those with whom people in general do not care to associate. Our attitude toward the Alabama Negro dialect is largely the result of our attitude toward the Southern Negro as a whole.

Dr. Zilch: I am not so sure that I follow you.

Dr. Thompson: Well, suppose that all the people now in New England with their present social, cultural, and educational refinements spoke the dialect of the East Side New York, and that the present residents of the East Side of Manhattan Island spoke the dialect of New England.

Dr. Zilch: It is almost impossible to conceive of such a thing.

Dr. Thompson: Maybe so, but for the sake of the argument, suppose that this were the situation. Wouldn't you then be inclined to champion the cause of the New England dialect, even though it had the "boid" and "goil" type of pronunciation?

Dr. Zilch: Of course, if you put it that way, one would naturally have to approve of the language of the cultured and refined people.

Dr. Thompson: Then you have answered the problem yourself. It is not the intrinsic value of the language that makes it acceptable or correct, but rather the social rating of those who speak the dialect.

Dr. Zilch: Yes, Dr. Thompson. I grant that you have made a very good point, but in view of the dialectical variations arising in our country, wouldn't you think it would be best for us to set up some authoritative standard, so as to stem this increasing tide of provincialisms and localisms? It is amazing what jargons pass for English.

Dr. Thompson: I suppose that you would want to set up New England usage as the authoritative standard?

Dr. Zilch: It would be hard to find a better one, wouldn't it?

Dr. Thompson: I am not so sure. This all reminds me of a trip I made among the speakers of the Tarahumara language of northern Mexico. Wherever I went, the people assured me that the Tarahumara which they spoke in their village was the pure Tarahumara. Those a little distance away might speak the Tarahumara language, but it wasn't as pure as theirs. They assured me that if I wanted to speak correctly, then I should learn their form of the language.

Dr. Zilch: Is it possible that aborigines, even without writing and grammatical study, should be conscious of these problems of language usage?

Dr. Thompson: Very much so. They are human beings and have very much the same kind of thoughts about life as you and I have.

Dr. Zilch: But getting back to our former suggestion. Do you not feel that there would be some point in establishing an Academy for English that could decide which usage is correct and which is not? This would have a great unifying influence on the language. Consider the noble work that the Spanish Academy has done for the Spanish language.

Dr. Thompson: I do not think that an Academy is the answer to the linguistic problems of English. An Academy usually chooses arbitrarily between two matters or else legislates after the event.

Dr. Zilch: What do you mean by "choosing arbitrarily"? All must be done on the basis of logic and comparative and historical backgrounds of the language.

Dr. Thompson: I am afraid that is just the difficulty. But we'll come to that later. Let us return to the Spanish Academy for a moment. Why do you suppose that the members of the Royal Spanish Academy chose Castilian Spanish as the norm for

Spain, rather than any one of three or four other dialects, spoken by equally significant groups of people? After all there were the dialects of Andalusia, Aragon, Valencia, and Catalonia. Why wasn't one of these dialects chosen instead of Castilian?

Dr. Zilch: Perhaps it was the perfection of grammatical structure in Castilian, the freedom of the language from foreign mixture, and the wealth of literary materials. All these factors were probably important in such a decision.

Dr. Thompson: It may have been that these features were included in the arguments, but the reason for the choice of Castilian as the official language was the fact that the rulers of Spain, who were of the house of Castile, had called this Spanish Academy together. After all, even rhetoricians and grammarians are intelligent enough to know on which side their bread is buttered. It would hardly be diplomatic to choose a dialect other than that spoken by the new ruling house of Spain.

Dr. Zilch: I hadn't thought of it from that standpoint before.

Dr. Thompson: This confirms the observation that we made about dialects in the United States. The dialect is not good or bad on the basis of its own merits so much as on the basis of the social, economic, and political standing of the persons who speak the dialect.

Dr. Zilch: You seem to think of language as practically equivalent to any other cultural phenomenon. Language doesn't make much more of a difference to you than the style of clothes that one wears.

Dr. Thompson: You're right. A particular style becomes correct not so much on the basis of its intrinsic worth as on the basis of what person or persons wear that style of clothing.

Dr. Zilch: But there are a good many artificialities about styles, are there not?

Dr. Thompson: Right. And there are a good many artificialities about languages too. Consider the style in men's coats which calls for buttons on the sleeves near the cuff. They serve absolutely no good use at the present time. They were formerly used to button on large, flaring cuffs. Now we do not use such elaborate, starched cuffs, but we continue to have the buttons. Why? Well, there's no real reason. It's just custom. The same thing applies in language. Why is it that

the verb to be is the only verb in the English language that has a special form for the first person singular? In the history of English, the normal pattern called for a special form of the verb for agreement with the first person singular, but this is no longer true except for one verb. Our system is very arbitrary and very artificial.

Dr. Zilch: But I cannot give up my idea of the value of an Academy for English.

Dr. Thompson: Of course, you are not the first by any means who has felt such a desire. Even the great author Swift wanted such an Academy to help "straighten out" the English language.

Dr. Zilch: It is strange that one who used the English language with such perfection would have desired such an Academy. His usage would be a criterion for today.

Dr. Thompson: This situation only serves to point out the fact that each generation is faced with the same problem, namely, that the language is changing. There exists within humans the desire for some sort of authority. With a dictionary and a copy of Etiquette by Emily Post, people feel that they are equipped to meet all social situations in an acceptable way.

Dr. Zilch: If authority is a thing to spurn, why is it that people seek and demand authoritative assistance in controversial matters?

Dr. Thompson: That is a good question. It probably has several answers, but I believe one of them is that those who are just breaking into the upper crust of society, or who are at least aspiring to do so, do not know how to act and speak, and want to know. Then for the others, I believe that the desire for some authority in the field, whom people can follow without having to think for themselves, is the way of least resistance. In other words, if one is criticized, he can always resort to some authority and thus remove the onus of the blame. An authority is a way of escape and a defence mechanism.

Dr. Zilch: You are one of the most thorough-going non-conformists that I have ever met. Don't you think authorities mean anything?

Dr. Thompson: Of course, I do. But the well-educated man is likely to be much less appalled by authorities than the man with a more meager education. The well-educated man has

learned to do some thinking for himself along some lines. In doing so, he has found that the so-called "authorities" in these lines have been quite wrong in many regards. As a result of this he learns to be suspicious of these authorities. The well-educated man accepts nothing without weighing the actual truth of the situation.

Dr. Zilch: I suppose, then, you would encourage a young student to plunge into a research problem without regard to all that has been written on the subject by others.

Dr. Thompson: Absolutely not! That would be foolishness. He should first learn everything that anyone else has ever known about the problem and then start from there. He should know the mistakes that others have made, so as not to fall into the same errors. But he must not think that what he has read is final and absolute. If he does, learning will not advance. He must not do as men of the Middle Ages did, who read Aristotle to find out how many teeth there were in a horse's mouth but didn't go out to look in a horse's mouth and count them.

Dr. Zilch: I must agree that you are right. Research must follow this procedure. I was only afraid that you were going too far afield in your remarks. However, Dr. Thompson, to get back to our remarks on an Academy, would you not say that an Academy would be a great advantage in defining correct rhetorical usage? How fine it would be for my own teaching to have some universal authority to which to refer my students!

Dr. Thompson: Why not teach them to think for themselves? You must surely recognize that the difficulty with such authoritative standards is that as soon as they have been set up, they must be changed.

Dr. Zilch: I hardly see what you mean. Such a proposed Academy would operate with the complete agreement of scholars of the English-speaking world.

Dr. Thompson: Then you are considerably more optimistic than I am, for I do not see how you could get such a representative group of scholars to agree. To give a specific example, would you want the so-called "split infinitive" to be banned from usage?

Dr. Zilch: By all means! It is very bad style.

Dr. Thompson: And yet you can scarcely find a best seller that

isn't full of split infinitives.

Dr. Zilch: That is because they contain conversation, and the speech of Americans is becoming exceedingly careless on this point.

Dr. Thompson: But writing is always going to reflect speech, unless we are to set up a completely artificial language for scholars, even as classical Latin served the scholars of the Middle Ages.

Dr. Zilch: I grant that such would not be advisable.

Dr. Thompson: Then I am afraid that your hopes for rigorous authority in the English language are doomed to disappointment.

Dr. Zilch: I am beginning to realize the problems involved in this, but I still feel that your arguments are just the expression of this lawless age in which we are living.

Dr. Thompson: If you think this, you will be in a large company of people, for the older generation seems always to have found in the oncoming generation more or less of this same tendency. Perhaps this situation is more accelerated today because of greater popular education and the number of social, economic, and religious institutions which are rapidly changing.

Dr. Zilch: Do you not think, however, that an Academy would retard the rapid change in English which we witness at the present time?

Dr. Thompson: Perhaps it would, but it would not do very much. The Spanish Academy has not had much effect in stabilizing Spanish, certainly not for Latin America. And surely if you rhetoricians, who have been writing and teaching so vigorously against change for so many generations, cannot halt these modifications, there is little likelihood of an Academy doing much better. On the other hand, there is something more important to your question than the extent to which these changes can be stopped. What I am interested in is why you should be opposed to such change in the first place.

Dr. Zilch: I would turn the question. Why, when we have such a fine vehicle of speech, should we want to change it?

Dr. Thompson: You certainly wouldn't claim it as perfect, would you?

Dr. Zilch: No. Nothing human is perfect, but in what items would you want to change English?

Dr. Thompson: The first thing that strikes me is the spelling. Naturally, this is not the language itself, it is only the arbitrary way in which we write it. But can't we all agree that the spelling should be changed?

Dr. Zilch: I would not be inclined to agree with you.

Dr. Thompson: You would not want to change the spelling? Did I hear correctly?

Dr. Zilch: Yes, you did.

Dr. Thompson: I thought everyone agreed to the need of spelling reforms. Perhaps I have been a little naive. Please explain yourself!

Dr. Zilch: In the first place all the English world can write and read the same words in the same way, and can study books written hundreds of years ago. Because of the similarity between the spelling of former times and the present, we have no difficulty with the works of Chaucer and Shakespeare, while if we had changed spellings, Chaucer would be all the more difficult for the student of literature.

Dr. Thompson: All I have to say is that I am amazed at your evaluation of the expenditure of human energy.

Dr. Zilch: How is that?

Dr. Thompson: Just this. When it is all said and done, there are comparatively few people in the English-speaking world who make much of a study of the history of English literature.

Dr. Zilch: But more should do this.

Dr. Thompson: Granted that it would be valuable, but in the United States only two and one half percent of the people are college graduates. Why should the ninety-seven and one half percent be required to spend months and years of time and energy learning an arbitrary system which is only of some questionable value for a very few who study the history of the language? Furthermore, perhaps the history of the language would be more significant, if the phonemic changes were brought out more clearly by the change in orthography.

Dr. Zilch: But it would be quite difficult for the student to remember that in a former period the vowel of steel was higher than the vowel of steal. The spelling indicates this historical difference and is quite a help to the historical student.

Dr. Thompson: I would not want to underrate historical studies, but I still do not see the value in forcing so arbitrary a system on the masses, who are prevented from reading and writing with facility, except at great and unnecessary expenditure of energy. Consider the fact that in Mexico a child will normally learn how to read Spanish as well in one year as an American child will learn to read English in three or four years. The reason for this is the greatly superior alphabet in Spanish. For the life of me, I cannot see the value in writing the same vowel element eight different ways as in bay, rein, reign, whey, bait, eight, bouquet, and straight.

Dr. Zilch: But there is another advantage to the difference between steel and steal. If we didn't make a difference in the spelling, how would we distinguish between them in reading?

Dr. Thompson: I don't believe that there would be so much difficulty. One is usually a noun and the other a verb, and they would occur in different constructions. Consider a word such as horn. One meaning designates a part of an animal and another refers to a musical instrument. We rarely have any difficulty with such homonymy. To make a difference in spelling is only to add difficulty to confusion, even at the best.

Dr. Zilch: But students learn English despite these anomolies.

Dr. Thompson: True! Any other graphic system may be learned, even the conventional Japanese, but there is something basically at fault with a system when as in Japanese a blind student, who employs a phonetic type of Braille, can normally finish grammar school and high school in three years less time than the seeing student, who must learn the arbitrary ideographs. Without some reform English may some day be almost as much removed from patterns of pronunciation.

Dr. Zilch: It may be true, but there is something very close to one's heart which rebels at such wholesale tampering with a matter so intimate as orthography.

Dr. Thompson: You are not alone in such a feeling. Some of the most heated controversies have arisen over spelling reforms.

Dr. Zilch: I fear that it is asking rather too much to expect a man who has spent half a century in books to want to see them rewritten in some barbarous form. However, I must concede that most of what you say is true. There should be some change, if for no other reason than to save future teachers of rhetoric the tremendous labor of correcting wrong spellings. You see, if I cannot defend my esthetics, I will defend my profession. However, Dr. Thompson, as you mentioned, this matter of spelling may not be too closely related to linguistics. I realize that if this argument is to proceed, I will have to admit, at least temporarily, that writing is secondary and that speech is what counts. In this connection I am interested to know what changes you would suggest for the structure of English. How could you improve it?

Dr. Thompson: That is a rather difficult thing to answer, for much might be dependent upon personal taste. It is better to formulate some sort of criterion of judgment as to what should be changed. I do not assume for an instant that we will ever be able to initiate these changes and find acceptance for them. We are talking completely from a theoretical standpoint.

Dr. Zilch: Yes, yes. I understand, and am quite glad of it, for I am afraid if it were up to you to change the English language, it would be hard to recognize it by the time you worked on it a week or two. But go ahead. What sort of change would you recommend?

Dr. Thompson: Certainly, it seems to me that we could easily get along without arbitrary differences.

Dr. Zilch: Yes, if they are actually arbitrary.

Dr. Thompson: For one thing it does seem unnecessary to have one special form of the verb *to be* to agree with the first person singular. No other verb has such a difference, and we have no difficulty.

Dr. Zilch: That is true, you have found a unique situation that is arbitrary, but don't you think it would sound rather foolish to say **I are*, *you are*, and *we are*?

Dr. Thompson: No more so than to say *I come*, *you come*, and *we come*. If the **I are* pattern were the accepted form, it would not seem strange. Such a form would be a distinct gain in the economy of the language.

Dr. Zilch: What other specific type of change would you recommend?

Dr. Thompson: Well, we could eliminate the arbitrary plurals such as oxen, feet, and sheep. Then we would have a regular pattern *oxes, *foots, and *sheeps.

Dr. Zilch: But, my dear Dr. Thompson, children who haven't learned English speak that way.

Dr. Thompson: Perhaps they are smarter than we are then. They are following out the logical analogies of the forms and patterns which they find. It is only by education that they learn that the normal, apparently regular, analogies do not fit.

Dr. Zilch: From the way you speak one would not conclude that you thought much of the English language.

Dr. Thompson: Far from it. I believe that it is quite a remarkable language, but so are Hottentot, Chinese, San Blas, and Navaho very remarkable languages.

Dr. Zilch: And I suppose any other of the exotic jargons of the world.

Dr. Thompson: Right. They all have worthwhile features. But Dr. Zilch, it seems strange to me that you do not find some fault with English. Surely your study of it has revealed some features that you think are not the best. One cannot study a language without being critical, in the proper sense of the term, and one cannot have a critical mind toward matters without making some judgment as to the value of certain features.

Dr. Zilch: Yes, there are some features that I believe could be changed. But I would not change them to something new and revolutionary, but rather go back to earlier forms which seem to have great superiority over the present ones.

Dr. Thompson: You imply that English has been "corrupted," so to speak.

Dr. Zilch: I would not want to use exactly the word "corrupted," but if that fits the situation, then maybe it should pass.

Dr. Thompson: How would you refine English then?

Dr. Zilch: For one thing, I believe that we have developed a very contradictory pattern of expression. For example, one may say I was given a book or A book was given me. The relationship between the I subject and the predicate of the

first sentence is different from the relationship between the subject *a book* and the predicate of the second sentence. Here are similar patterns with two different relationships expressed.

Dr. Thompson: That is true, but what remedy do you suggest?

Dr. Zilch: Precisely the pattern in Old English. Such a sentence was formerly *me wæs gegiefan an boc*, literally 'me was given a book.' Of course, I realize that there is no way of instituting such a change, but a reversion to historical forms seems more acceptable than such new monstrosities as **foots* and **sheeps*.

Dr. Thompson: You have a point there, Dr. Zilch. But I am a little curious about the basis of your analysis. Why again would you like a change made?

Dr. Zilch: Because of the duplication of pattern.

Dr. Thompson: But does such duplication ever lead to ambiguity? In other words, are you ever in doubt as to which element is the direct goal of the action and which is the indirect goal of the action?

Dr. Zilch: I guess not. Any child would know the difference in meaning.

Dr. Thompson: Well, if there is no actual ambiguity, then there is no imperative need of change.

Dr. Zilch: But it is the sense of logic that is involved.

Dr. Thompson: That is true, but there are some other considerations. In the first place, to begin the sentence with *me* in the subject territory would be contradictory to the general pattern for English, would it not?

Dr. Zilch: Yes, that is true.

Dr. Thompson: And, as such, we would be going against the very pattern which gave rise to the change from *me* to *I* in the first place. As long as we have adopted a more or less rigid word order, then the order of such words has to be considered as a significant grammatical feature. Furthermore, the ambiguity and contradiction of logic is not so bad as you imagine, for the indirect goal never occurs as the subject, except when the direct goal is also stated in the predicate. When, then, the direct goal and the indirect goal are both

stated in the sentence, there would rarely, if ever, be a case in which the context would not indicate which goal was which.

Dr. Zilch: There is something in what you say, Dr. Thompson, but perhaps I am like the man of whom it was said, "A man convinced against his will is of the same opinion still." I do not like to appear obstinate in these matters, but you must admit it takes a little time for these new views to penetrate.

Dr. Thompson: You must, however, have in mind some other changes which you would think would be valuable.

Dr. Zilch: For one thing, the elimination of sentence fragments. It seems quite barbarous to me that the coming generation is in such a habit of speaking, even carrying on entire conversations, in sentence fragments.

Dr. Thompson: What do you mean by sentence fragments?

Dr. Zilch: Oh, they are very common. Just the other day I overheard a conversation at the store, which went something like this:

How much for these?
Ten for thirty-five.
And these?
Five cents more. Ten for forty.
Okay, a dozen then.
Fine! Wrap them?
No.
Here. See you later.
Good-bye.

Now isn't that barbarous? Not a full sentence in the entire conversation. People do not think properly any more.

Dr. Thompson: I don't believe I would agree with you.

Dr. Zilch: How is that?

Dr. Thompson: In the first place, did you notice the customer and the store-keeper having any trouble understanding each other?

Dr. Zilch: No! That is the unfortunate part about it. They not only used these sentence fragments, but seemed completely familiar with this non-English usage.

Dr. Thompson: But I can't see anything unfortunate about any form of speech if people can understand each other.

Dr. Zilch: Would you want us all to speak as though we were writing telegrams?

Dr. Thompson: Not necessarily.

Dr. Zilch: But how is it that you contend that one word can possibly have as much meaning as an entire sentence, which is a complete idea?

Dr. Thompson: Sometimes a single word will have much more value than an entire subject-predicate construction.

Dr. Zilch: How is that?

Dr. Thompson: If a fire broke out in your house, would you go out shouting There is a fire in my house! or would you yell, Fire! Fire! In such a case the single words would carry much more significance than the clause.

Dr. Zilch: But you have chosen a rather isolated situation.

Dr. Thompson: True. The illustration was chosen because it fit my argument, but one doesn't have to rest the case with this one situation. Wouldn't you say, however, that almost everyone speaks in fragments in some situations?

Dr. Zilch: Yes, that is true. I even find myself slipping into this pitfall at times.

Dr. Thompson: Well, then, if almost everyone does it, and even you do it at times, or are at least tempted to do so, wouldn't you consider such a practice culturally acceptable?

Dr. Zilch: Now we are right back to what we discussed before, namely, what is correct and what is not correct. For myself, I would insist on combining logic and esthetics to determine every usage.

Dr. Thompson: Yes. I remember that is what you were contending for previously. However, don't you think it would be wise to modify that decision in the light of descriptive analyses? Ultimately, those who do "shape the destiny of English," if we may speak in such teleological terms, are better defined as "those who carry on the affairs of the English-speaking world."

Dr. Zilch: But many of these are not rhetoricians or well-educated men, and personally I consider it lamentable that those who carry on the affairs of the English-speaking world are determining the acceptability of certain usages. Don't you think that this present tendency in English is resulting in English "losing its grammar"?

Dr. Thompson: If you mean by "grammar" the multiplicity of endings that show case, number, tense, person, then it is true. But that is not all of grammar.

Dr. Zilch: But consider the forms of Old English. If you have a sentence such as Se mann þone beran sloh, literally 'the man the bear slew,' you know instantly that se mann 'the man' is the subject by the very form of the words. Likewise with þone beran 'the bear,' the form of the words indicates that 'the bear' is the object of the verb. These words could occur in three other orders, namely, þone beran se mann sloh, þone beran sloh se mann, and sloh se mann þone beran. Regardless of the order the meaning would be the same. All is crystal clear.

Dr. Thompson: But in Modern English we say the man slew the bear. There is no doubt as to which party is the actor and which is acted upon.

Dr. Zilch: True. But there is nothing beside the order to indicate this.

Dr. Thompson: Fine. This is an advantage. The words must occur in some order, and it is just so much of an advantage if the order is grammatically meaningful.

Dr. Zilch: But you do not seem to appreciate the rhetorical possibilities of variant word order. The Old English is so much closer to the Greek and Latin in this respect.

Dr. Thompson: Of course, the stylistic possibilities for present-day English are different from those of Greek and Latin. For the literary artist different languages lend themselves to different rhetorical possibilities, just as for other artists marble, oils, water colors, ceramics, and music are different mediums of artistic expression. Each medium has its own features of excellence. It is true that no translation of a masterpiece into another language can completely convey the beauty of the original, for the medium of expression has been changed. But this is a problem more specifically for the philologist than for the linguist.

Dr. Zilch: As you have been talking this evening, I have noticed that you have frequently used terminology that is quite non-classical. You speak of indirect goals, instead of indirect objects, and in many features you so completely discard the classical grammatical apparatus, that one would think that you were not even acquainted with it, though of course, I am sure you must be. However, I cannot understand such complete disregard for time-proven grammatical methods. Don't you think you are doing the student a great injustice in contradicting, so to speak, his previous training?

Dr. Thompson: I don't believe so. In the first place, I realize that we descriptive linguists do use quite different terms from the more standard classical ones, and we do this for a very definite reason.

Dr. Zilch: How can that be? Are you such a nihilist as all that?

Dr. Thompson: By no means. Rather, a constructive builder. However, one cannot afford to build on the wrong foundation.

Dr. Zilch: But, my dear Dr. Thompson, how is it that you consider the classical language apparatus the wrong foundation? It is the result of hundreds of years of research and the brilliant acumen and perspicacity of great minds.

Dr. Thompson: Yes. The classical grammatical apparatus is a remarkable thing. It fits Greek and Latin quite adequately. But for English and some other languages it is completely inadequate. If one starts with the classical foundation, he is going to attempt to build the entire structure of a new language on the old foundation. What he has as a result is something like the grammars of various Indian languages of this hemisphere which were written by Catholic priests who knew no other grammatical apparatus than the one which they had studied in Latin. As a result, the native languages which they have described have usually been pulled entirely out of shape, simply to make them fit the Procrustean bed of Greek and Latin grammar. "New wine must be put in new bottles."

Dr. Zilch: But to be very specific, why is it that you have mentioned indirect goals instead of indirect objects?

Dr. Thompson: In the first place the term goal seems to fit better the meaning of that toward which the action of a verb may be directed. The compound action-goal seems to define more adequately the relationship between the verb expression

and what has been previously called the "object." But there is another reason. If we use the term "indirect object," the student tends immediately to equate this with the "dative" with which he is familiar in classical languages.

Dr. Zilch: And rightly he should.

Dr. Thompson: On the other hand, I would say he shouldn't. The dative in Greek and Latin has a special case form, but in English the only thing that indicates the difference between the direct and the indirect goal, or "object," if you insist, is the order. The first goal is the indirect one and the second goal is the direct one in such an expression as He gave the man a dollar.

Dr. Zilch: And you wouldn't consider the man to be in the dative case?

Dr. Thompson: No, indeed! It is absolutely no different from the form used for the subject, or that used as the direct goal, or the form used with prepositions.

Dr. Zilch: Then you refuse to be influenced by even such cognate languages as German, which certainly does have a dative case form?

Dr. Thompson: That is right. When we describe English, we want to describe it as a unit in itself. English functions quite apart from any influence involved in the usage of cognate languages.

Dr. Zilch: Then what good is comparative linguistics?

Dr. Thompson: It has great contributions to make. But descriptive linguistics is not dependent upon either historical or comparative linguistics for its techniques of procedure.

Dr. Zilch: I suppose then that you throw over the entire tense system of classical grammars.

Dr. Thompson: How do you mean that?

Dr. Zilch: I take it for granted that you would not have a basic present, past, and future tense system, but that you would put shall, will, must, may, and can all in the very same class, even though shall and will have special values in translating classical language forms.

Dr. Thompson: Sometimes you show really brilliant intuition!

Dr. Zilch, you would make a first-rate descriptive linguist!

Dr. Zilch: Heaven forbid the thought!

Dr. Thompson: What you have suggested is exactly what we do. Why should we consider shall and will in any different class from must, may, and can, simply because shall and will translate special future indicative verb forms in languages cognate to English? Descriptive linguistics is a procedure by which we put together those things which function alike.

Dr. Zilch: But you seem to take special delight in contradicting the classical approach to this situation.

Dr. Thompson: No. It is not that we particularly delight in being different, but we have found that a different approach gives significant results, and we are often rather enthusiastic about these results. Accordingly, we are staunch defenders of our methodology.

Dr. Zilch: This has been a most profitable discussion, but I cannot do justice to the classical approach. Dr. Claudius Cicero McDougall and I often get together on Monday evenings to discuss philology and the like. Wouldn't it be possible for you to come over to my apartment this next Monday? We could continue our discussion there.

Dr. Thompson: I shall be glad to, and am sure I'll profit from the discussion.

Dr. Zilch: As to profit, I do not know. I am confident that Dr. McDougall is a better qualified defender of Greek and Latin than I am. At any rate, I shall look forward to continuing.

Interlude 3

MCDOUGALL DEFENDS THE CLASSICAL LANGUAGES

Dr. Zilch: Come right into the library, Dr. Thompson! Dr. McDougall and I have been waiting for you.

Dr. Thompson: I'm so sorry to have been late.

Dr. McDougall: Well, well, it is good to see you again, Dr. Thompson. I have been looking forward to getting to know you better and to finding out more about this descriptive linguistic "plague" on the campus. I understand you're the man who propagates the germ over in the Modern Language building.

Dr. Thompson: I assure you it isn't quite as bad as all that. It's a very innocuous germ.

Dr. McDougall: I must compliment you, Dr. Thompson. I have never known a professor to come to this campus who in such a short time has had so many folks talking about his courses. You seem to be something of a showman, as well as a scholar.

Dr. Thompson: I'm not so sure. I rather think that you gentlemen have advertised my courses far more than I have.

Dr. Zilch: Well, anyway, we admire the zeal of some of your adherents, Dr. Thompson. You certainly seem to inspire them with something. Rhetoric doesn't have such effects on them.

Dr. Thompson: Perhaps the reason is they do more investigating for themselves and less memorizing of apparently unrelated facts. Everyone likes to discover new things, and descriptive linguistics aims at doing that.

Dr. McDougall: Dr. Zilch has just been telling me how completely new and revolutionary your system is. Some of my students had intimated that they were getting from you quite different types of analyses than I was giving them.

Dr. Thompson: The system actually isn't as new and revolutionary as it seems. The major outlines were laid down by the Sanskrit scholars by the third century B. C., and many of

our techniques come directly from classical scholarship. Perhaps it is unfortunate to stress the newness of our approach.

Dr. Zilch: You will admit, will you not, Dr. Thompson, that your general attitude toward most linguistic problems is quite contrary to the more accepted classical approach? Remember our discussions in the past. Actually, Dr. McDougall, you will find no grammatical concept of classical philology is sacred to these descriptive linguists.

Dr. McDougall: Linguistic iconoclasts then?

Dr. Thompson: Those are rather strong words. Actually not linguistic iconoclasts, but also not worshippers of grammatical fetishes.

Dr. McDougall: Do you consider classical scholars to be fetish worshippers?

Dr. Thompson: No general accusation would be true, but there is often a tendency for one to be so overcome by the associations of authority which seem vested in some usage as to fail to be duly critical. The fact that something seems out of the ordinary or remarkable, and that others have left it unchallenged is no reason why one should fail to examine it with a critical attitude, and if it proves wrong, to abandon it.

Dr. McDougall: You would seem to be a little pugnacious toward the classical attitude, which cannot refrain from seeing in Greek and Latin the most perfect expression of human thought to which the world has ever attained.

Dr. Zilch: I fear you have slightly over-stated the position, Dr. McDougall.

Dr. McDougall: Must one side-step the truth?

Dr. Zilch: No! Not at all, but certainly Dr. Thompson is not going to agree with that statement. I have made some very mild statements along that line, statements which I was sure he would accept, and which I could use as premises for further arguments, but he inevitably attacked the very simplest premises.

Dr. Thompson: Yes, I'm afraid that I will have to object to the conclusion that you have stated, Dr. McDougall.

Dr. Zilch: We would have done better, Dr. McDougall, to approach the classical position by degrees.

Dr. McDougall: No, indeed! We might as well be out with it and show our colors.

Dr. Thompson: I didn't realize that we would be plunged so soon into such a discussion as this, but since, Dr. McDougall, by stating the question you have taken the affirmative in this debate, I am assuming that the burden of proof will rest with you for proving that Greek and Latin are the most perfect expressions of human thought.

Dr. Zilch: I'll do what I can to back you up in this, Dr. McDougall, but I fear that you have taken a rather extreme position. Dr. Thompson here has the most convincing way of making age-old truths seem blatant lies.

Dr. McDougall: But he can't make white out to be black.

Dr. Zilch: No, but he'll make it look so grey that you will think it is black.

Dr. McDougall: Be that as it may, surely Dr. Thompson will grant, will he not, that Greek and Latin are basic to the study of all languages?

Dr. Zilch: I hesitate to answer for him. What do you say, Dr. Thompson?

Dr. Thompson: Dr. McDougall, you seem to have made a rather sweeping statement. Just what do you mean?

Dr. McDougall: I would say that it is quite obvious when students come to study English grammar. I have had student after student exclaim that he never actually understood English until he studied Greek or Latin under me.

Dr. Thompson: I wouldn't say that either Greek or Latin were responsible for that contradictory situation, which, however, is very widespread. Dr. Zilch here and his professional cohorts are at fault.

Dr. McDougall: How so?

Dr. Thompson: Well, they have endeavored to explain all the categories of English in terms of classical grammar.

Dr. Zilch: Yes, yes, I remember that discussion before. I

feel, Dr. McDougall, you got off to the wrong start.

Dr. McDougall: How is that, Dr. Zilch?

Dr. Zilch: Let Dr. Thompson explain.

Dr. McDougall: What, then, is this explanation to which even Dr. Zilch here seems to give assent?

Dr. Thompson: Well, it is more or less this. When discussing English grammar much is made of the "objective" case, but actually there are only six words in the entire English language which indicate the objective case, namely, me, us, him, her, them, and whom. In Greek or Latin such case distinctions are important with almost all nouns, but in English no noun shows object case. What counts in English is the order of the words, while in Latin and Greek the order is relatively less important.

Consider the matter of the agreement of adjectives with nouns. In Greek and Latin the adjective agrees with its noun in gender, number, and case; but in English no adjective indicates gender and case, and only two adjectives have special forms for indicating number, namely, this : these and that : those.

Modal categories are hauled over from the classical languages and students are taught to recognize a "subjunctive" form, when there isn't a form in English which is subjunctive and nothing else. In other words, students can't possibly see how the terminology and the approach fit English until they do take some course from you, Dr. McDougall. There they see a language in which these categories and forms are found. Of course, it is revealing to the student to study Greek or Latin; but why should a study of Greek or Latin be necessary for one to understand a language which he may speak as a native? A knowledge of a cognate language should not be necessary.

Dr. Zilch: I can see that Dr. Thompson has a point there.

Dr. McDougall: You are deserting me rather soon in this discussion, Dr. Zilch. However, to be explicit, I would like to bring in the subject of the imperative mode in English. One cannot appreciate the significance and the formation of the imperative in English without an adequate understanding of the Greek or Latin models.

Dr. Thompson: Not at all. In fact, I see no reason in the world why we should talk of an imperative mode in English.

Dr. McDougall: But we certainly do have commands, do we not.

Dr. Thompson: Right! But in what way does the imperative mode form differ from other forms?

Dr. McDougall: Well, it has--ah, ah, well, I suppose one must say that it is identical in form in each case with the infinitive.

Dr. Thompson: Exactly! Then there is no need of talking about an imperative form if it is the same in every case as another form.

Dr. McDougall: I suppose not. But there are certain features of intonation which are present.

Dr. Thompson: That is true. However, these features of intonation are not attached to the verb form alone, but they occur with the entire expression. One may say: Come! Come here! Come into the store! The intonation pattern is a characteristic of the sentence type, not of the verb form. Is that not true?

Dr. McDougall: Yes, I presume so. But consider the elaboration of Latin in which by using another mode we can have a "hortatory" with the first person plural, an "imperative" with the second person, and a "jussive" with the third person.

Dr. Thompson: That can be duplicated in English. For first person we say Let's go!, for the second person Go! or You go!, and for the third person Everybody go!

Dr. McDougall: But doesn't it contradict your classical training to call such a form as go in all these cases an infinitive? It is really an imperative.

Dr. Thompson: You are saying that it is an imperative because in Greek and Latin a similar type of expression is rendered by a special form which is called imperative. But why should I call the same form in two situations by two different names? We should not describe this form in terms of something in Greek or Latin, but in terms of its occurrence in English.

Dr. McDougall: But do you not think that Greek and Latin are of great value to the student as a foundation in grammatical principles?

Dr. Thompson: I would say that a thorough study of Bantu would be just as helpful, if not more so.

Dr. McDougall: I would think you were making a joke of it, if I hadn't heard such statements repeated to me by your students. It is this primitivistic attitude that seems most inexplicable.

Dr. Thompson: Perhaps I am not completely demented in this connection. There are real reasons why the study of Bantu would be of more help than the study of Greek and Latin. Greek and Latin, after all, belong to the same Indo-European language family as English. Considerable similarity exists between all the members of the Indo-European family. For one to have the privilege of examining a language of a completely different family gives one a tremendous new vista of linguistic possibilities. When we keep ourselves too immersed in our own small linguistic lake of Indo-European languages, we never develop much skill in learning to navigate some strange linguistic ocean.

Dr. McDougall: Would you actually propose the introduction of a department for the study of African languages?

Dr. Thompson: Indeed! I believe that it would be a very worthwhile study.

Dr. McDougall: But what of the cultural aspect? What contributions have the speakers of these languages made to world literature?

Dr. Thompson: That is the province of philology. I speak only from the standpoint of the linguist, who studies language forms, not the literature. Nevertheless, a thorough course in African linguistics and anthropology might make it possible for us as Americans to remove the tragic egoism of race prejudice which rests upon us and which is potential dynamite in our society.

Dr. McDougall: You are quite an idealist. However, let's come back to what we were discussing, namely, Greek and Latin as the most perfect expressions of thought. Consider the division of gender, into masculine, feminine, and neuter. That surely covers the situation thoroughly and gives us a fundamental division of natural phenomena.

Dr. Thompson: Your argument seems a little hard to follow. There are so many anomalies in the gender system of the classical languages. Why for example in Greek is ['powS] 'foot' masculine, and ['kʰeyr] 'hand' feminine, while ['teknon] 'child' is neuter? On the other hand [^oikos] 'house' is masculine, and a word with the same type of ending, namely,

[ho'dos] 'road' is feminine. The system may be theoretically fine, but the anomalous contradictions in the system make it so arbitrary as not to recommend it as the "most perfect expression" you were talking about.

Dr. Zilch: As far as gender is concerned, I would say that English is superior to the classical language pattern.

Dr. Thompson: There is something in what you say, but surely nothing like "perfection." The gender classification in the use of he, she, and it is more on the basis of a biological differentiation, but from a purely logical basis it is difficult to justify the optional use of she as a pronoun for ships, institutions, and countries.

Dr. Zilch: In my opinion the English language lost much of its picturesqueness when it lost its gender system.

Dr. Thompson: If you mean by "picturesqueness" unadulterated arbitrariness, then I would agree with you, but picturesqueness is decidedly a subjective term. We must not think that the Indo-European languages are the only ones to have gender distinctions, and by such we mean major class distinctions that run throughout the substantives of language. In the Algonkian languages the basic dichotomy is between animate and inanimate classes of nouns.

Dr. McDougall: And do you find any arbitrary situations in Algonkian?

Dr. Thompson: Of course! It would be strange if one didn't find so-called arbitrary distinctions. Animate nouns include persons, animals, some plants, and also certain objects such as a 'kettle.'

Dr. McDougall: I suppose that the primitive mind of the native considers that a kettle is animate because water boils in it.

Dr. Thompson: Perhaps the explanation is true; one cannot tell. Nevertheless, I would object strenuously to your insinuations of the naïveté of the so-called primitive mind. Primitive man is able to make some very acute observations about natural phenomena. My own experience with primitive peoples has convinced me that they have a far more keen understanding of human nature and personalities than we representatives of the so-called western culture. But this is quite apart from the linguistic problem.

Dr. McDougall: What gender system have you found which is

superior to the system in the classical languages?

Dr. Thompson: Perhaps no system at all would be better. There is little necessity for such.

Dr. McDougall: But how would you know the antecedent of the pronouns, if you didn't have a gender system?

Dr. Thompson: There are many languages in which the pronouns do not agree with any gender class of nouns, and there is no particular trouble involved. Furthermore, you can have ambiguity in Greek if a feminine form pronoun stands close to two feminine nouns.

Dr. McDougall: That is very true, but what types of noun classification have you found which you would recommend in the place of the Greek and Latin pattern?

Dr. Thompson: You must understand me clearly, Dr. McDougall; I do not do any recommending. I do not say that one feature is better or worse than the other. I can say that one is more complicated than the other, but as a descriptive linguist my job is to describe what I find, not to pass judgment. I am interested only in how languages work. Personally, I would prefer a language without gender distinctions, but no doubt you and Dr. Zilch here would prefer gender and plenty of it. We must always bear in mind that in all cases what the native uses seems proper and easy for him. The click sounds of Zulu are very difficult for most foreigners, but they are easy for a native Zulu speaker. So with the Bantu gender system, which varies within the Bantu family from some ten gender classes in certain cases to as many as twenty in others. The natives think that the system is easy, and undoubtedly would not want to relinquish it for any three-class system of Indo-European.

Dr. McDougall: Do these classes have any logical and meaningful distinctions underlying them?

Dr. Thompson: To some extent. The first class is predominantly the personal class. Other classes appear to differentiate various types of objects, and perhaps originally the classes were fairly well defined on the basis of such factors as size, shape, and function, but much of this differentiation has been lost.

Dr. McDougall: You mean, then, that there are some twenty classes in some of the Bantu languages, and that many, if not most, of these classes are arbitrary?

Dr. Thompson: That is right. Remember, however, that it is no more absurd than the contradictory situations in the gender distinctions in Greek, Latin, and even English.

Dr. McDougall: Wouldn't you say, however, that classifications of nouns in the languages of the world are made basically with a view to the dichotomies between animateness vs. inanimateness, and masculine vs. feminine?

Dr. Thompson: Perhaps so; perhaps not. But with some 1000 languages in the world which have not even been reduced to writing, and more languages which have not been adequately analyzed by scientific investigators, it is dangerous to make any generalized statements. Consider the example of the Thai language, which has some eighty or ninety classifiers employed with numerals. In speaking of humans, there are five ranks which are distinguished, beginning with classifiers for the king and queen, and ending with designations for the ordinary common person. Sacred objects are similarly classified on the basis of rank. Animals fall into another class, with the exception of the elephant, which, as a sacred animal, receives a special classifier. Inanimate objects are classified in some instances as to size, shape, or function. In still other cases the choice of the classifier is entirely arbitrary. For instance, the classifier which is normally used with animals is also employed with 'table,' 'chair,' and 'pen-point.'

Dr. Zilch: That is a rather remarkable and complicated type of division indeed.

Dr. Thompson: In the Tunica language nouns are divided first into animates and inanimates. In turn the animates are divided into three classes. These differences are indicated in the form of the auxiliary verb and, as such, classify all nouns as to the position of the referent. The first class includes humans and quadrupeds which may have any of three positional agreements, in other words they may be vertical, horizontal, or squatting. The second class denotes elongated, non-human animates which come into a class of horizontals. These include such words as 'fish,' 'snake,' and 'alligator. The third class designates small, dumpy, non-human animates, which belong to the "squatty" class. These include such words as 'frog,' 'bird,' and 'insect.' The inanimates on the other hand are divided first into horizontals such as 'lake,' 'island,' 'river,' 'town,' and 'water,' and abstracts such as 'morning'; and secondly into verticals which include 'houses,' 'trees,' and most plants. This type of classification has many points to recommend it. But again, remember, we are not trying to pass judgment; we are only describing

what occurs, and it is imperative that we remain objective in our thinking.

Dr. McDougall: I realize that in the matter of gender, there may be situations in which the classical languages do not represent the optimum, but certainly the value of the category of singular vs. plural cannot be denied?

Dr. Zilch: Believe it or not, Dr. McDougall, but Dr. Thompson will undoubtedly deny this very thing.

Dr. Thompson: You seem to know my reactions rather well, Dr. Zilch.

Dr. Zilch: I haven't discussed similar matters with you for nothing. At times you almost remind me of the man who said, "I'm against it; what is it?"

Dr. Thompson: I don't want to appear that contrary, but you will have to admit that at least I seem to be consistent in my opposition.

Dr. McDougall: There is no doubt about that. But how anyone could object to the dichotomy of singular vs. plural is beyond me.

Dr. Thompson: I do not object to it. Don't mistake me. I do not object to anything in any language. What I object to is your contention that there is something that partakes of perfection in the fact that Greek and Latin, and for that matter English, make a distinction between singular and plural.

Dr. McDougall: Why is it, then, that you do not consider this to be a significant division denoting the superiority of the classical languages?

Dr. Thompson: I'll answer by asking why singularity should constitute one half of the dichotomy and everything from two to infinity remain in the other half of the dichotomy. There doesn't seem to be anything so essentially wonderful about that type of division. In fact, it seems a little artificial and illogical. For example, in the Tarahumara language of Mexico one does not have to make a distinction between singular and plural. The word towíki means 'boy' or 'boys.' If the context doesn't necessitate the distinction, then no distinction is made. However, if it is important to make a numerical distinction, then words denoting 'one,' 'two,' 'three,' 'few,' 'many,' or 'all,' may be employed.

Dr. McDougall: Of course, you know that ancient Greek distinguished a dual form as separate from the singular or plural.

Dr. Thompson: Yes, I know, and so does modern Eskimo.

Dr. McDougall: Is that possible? That would indicate a rather highly developed analytical mentality.

Dr. Thompson: Nothing of the kind! Of course the Eskimos are not inferior to us in general intelligence, but neither does a very highly complex incorporating language indicate intellectual genius.

Dr. McDougall: Then you would not believe in any correlation between complexity of linguistic structure and intelligence?

Dr. Thompson: None whatsoever! If you were to rate intelligence on the basis of number categories, you would have to rate the inhabitants of the Annatom Islands as highly intelligent, for they distinguish not only a dual, but also a trial form, and finally a plural.

Dr. McDougall: My word! That does make it complex. It would seem that they were pushing things just a little far, don't you think so?

Dr. Thompson: I don't know. That is for them to decide. If they like their language that way, and evidently they do, even as all people seem to think their own language is perfect, or almost so, then far be it from me to pass judgment upon them. The fact that a particular man speaks a certain language is in some ways no more significant than the fact that he has his hair cut a certain way. He conforms more or less to the custom of the society in which he is born. He may exert some pressure for some change in style, but if he goes too far, he will be considered crazy, and his influence will be lost. The change in any cultural phenomenon is slow and almost imperceptible. When we look back on a change of style, we can see that it has taken place, but we seldom can predict the specific direction or extent of the trend.

Dr. McDougall: Indeed, you do compare languages to the most commonplace things in life.

Dr. Thompson: Language is rather commonplace. In fact it is one of the most commonplace features of human society.

Dr. McDougall: But don't you think that the recognition of number in nouns is a good thing?

Dr. Thompson: Of course, it is a good thing. We must have some method of distinguishing numerical relationships, and all languages possess such means, but to make such a numerical dichotomy obligatory in a language is not necessarily the optimum. There are other matters which other languages indicate and which are equally significant. Consider even a phase of this subject of number. In the Nootka language there are two types of plurality, one is collective and the other distributive. That is to say, the collective form indicates that the several objects or actions are viewed together and the distributive form indicates that the several objects or actions are viewed as distributed either spacially or temporally.

On the other hand, some languages pay little attention to the distinction between singular and plural, but they have other obligatory categories such as possession. In many of the Mayan languages certain nouns cannot be used unless the possessor is designated. One cannot say 'house,' but rather 'my house' or 'your house' or 'his house' or 'someone's house.' An obligatory category of possession is certainly as logical as an obligatory category of number.

Dr. McDougall: I must admit that you do have a very cosmopolitan attitude toward the grammatical concepts of other languages. Nevertheless, as you have studied Greek, haven't you been impressed by the very remarkable combination of number, gender, and case distinctions? It is a grammatical masterpiece!

Dr. Thompson: But other languages can also have complicated systems. Consider the Tunica language that we discussed previously. There are three numbers: singular, dual, and plural. There are two genders, masculine and feminine. This gives six combinations. This gender-number classification is based upon the division into animate and inanimate. The animate class is divided into human and non-human. The human class is divided in turn into male and female, and likewise the non-human class is divided into male and female. The inanimate class is divided into inherently masculine forms and inherently feminine forms. The singular number class is further divided into true singulars and collectives. This type of a system could equally be called a "grammatical masterpiece."

Dr. McDougall: Perhaps you have been able to find some exceptional cases of languages which have certain remarkable features, paralleling, and also in some ways showing certain marked divergences from the classical pattern, but I am confident that you will have to admit that the classical

languages have the fundamental and basic pattern for the three persons: the speaker, the one spoken to, and finally the one spoken of. Is this not universal and is it not best exemplified by the classical languages?

Dr. Thompson: To the first part of the question, I would say, "Yes." It seems that in all languages there are ways of indicating the speaker, the hearer, and the one spoken of, but do not think for a moment that in all languages such indication of person is attached to the verb as a bound form, as it is in Greek and Latin.

Dr. McDougall: No, no! You miss my point. I only wanted to indicate that the classical languages do have these three persons, and it is certainly well to realize that these classical languages express this relationship not only in the pronouns but also in the suffixes of the verbs.

Dr. Thompson: If, however, all languages seem to indicate the three persons, it is not any special credit to Greek and Latin that they have such a category of person. The classical languages certainly do not have as elaborate a set of forms as some languages. In many languages there is a distinction made between what we call the "inclusive" and the "exclusive" first person plural.

Dr. McDougall: What do you mean?

Dr. Thompson: These languages make a distinction in speaking of 'we.' One form includes those spoken to, hence the "inclusive," and another form excludes those spoken to, hence the "exclusive."

Dr. McDougall: Indeed, that is a very clever distinction. It is strange that the analytical Greek mind would not have thought of making some distinction of that type.

Dr. Thompson: We English-speaking people seem to manage successfully without it, do we not? At least you haven't been conscious of any such lack, have you?

Dr. McDougall: No, I don't believe I have.

Dr. Thompson: Well, the so-called Greek mind was probably not conscious of such a lack either. However, some languages elaborate the persons in other ways. In some of the Algonkian languages one finds what may be called a "fourth person."

Dr. McDougall: How is that possible?

Dr. Thompson: Well, the first of the third persons introduced into the discourse is given the form of the third person, but the next such third person has the "obviative" or the "fourth" person form. In that way we would know in such a sentence as would be translated 'He saw his father' that someone else's father was referred to and not his own, if the 'his' occurs in the obviative or fourth person form.

Eskimo also possesses a second type of third person, which may be called the "recurrent." This is an extremely important device in identifying the antecedents in a complex sentence structure.

Dr. McDougall: I confess that it does look as though other types of languages do possess some of the fine qualities of the classical languages.

Dr. Thompson: Why don't you reverse the statement?

Dr. McDougall: No doubt my classical background is responsible.

Dr. Thompson: That is unfortunate, but I know this frequently happens. I had quite a battle with myself when I let go of some preconceived ideas which I had picked up from a college professor, who thought that all study of non-classical languages was pure primitivism.

Dr. McDougall: Then you admit that many of your arguments this evening have been a tour-de-force.

Dr. Thompson: Not at all! I only mean that I do appreciate the classics, and I enjoy nothing better for an evening of real relaxation than to pick up a dialogue by Plato or a play by Aristophanes or Euripides.

Dr. McDougall: To have heard you expostulate so against the classical languages just a few minutes ago, I would never have thought it possible that you would glance inside a Greek book. I have evidently misunderstood you.

Dr. Thompson: You have. And yet, perhaps you haven't.

Dr. McDougall: I can't have done both. The law of "the excluded middle" forbids it.

Dr. Thompson: Yes, I know. What I mean to say is that all that I have said about linguistic structure is absolutely true, but you have misconstrued my intention and have interpreted it as being a reflection on the literature of Greek and

Latin. It is very easy to confuse these two viewpoints, and most important that one should not.

Dr. McDougall: I confess that Dr. Zilch had you rather well sized up when he commented on your ability to make white objects appear black.

Dr. Thompson: Not quite. I haven't intentionally employed any sophistic arguments to win any point. Perhaps the difficulty is that Greek and Latin have been so whitewashed with uninformed appreciation that when one takes off a few coats of whitewash, they don't appear to be particularly marvelous. They are only languages with certain interesting phenomena, but they are not so remarkable as to be basic to the entire study of language or to the thought processes of mankind.

Dr. McDougall: But haven't you been greatly impressed with the more recent research of classical scholarship which has revealed the great significance of the so-called "aspect" in Greek? In other words, apart from the finite verb forms one finds that the quality of the action is the dominant factor in the meaning. This means, for example, a distinction as to whether the action takes place over a period of time, hence a continuative, or whether the action is definable as a "point" action, the so-called "punctiliar," as some scholars are calling it. The application of this aspectual analysis to the negative prohibitions gives some amazingly subtle distinctions. By this means a negative imperative in the present means to cease something that one is doing, but a negative subjunctive in the aorist indicates that one is not to do this in the future, implying that one is not doing the thing at the time. Have you in examining other types of languages come across anything so remarkable as this distinction of aspect?

Dr. Thompson: It is true that some classical scholars have thought that aspect is something very essentially Indo-European. However, from what limited observations I have been able to make of the situation, I would say that the aspect of the action is a more conspicuous feature in most languages than the time of the action. After all, why should the relative time of an action be attached to the verb as a bound form?

Dr. McDougall: It stands to reason that we must know when an action takes place.

Dr. Thompson: Perhaps it is just as important to say where an action takes place as when. One factor could be considered

just as essential as the other. However, certainly the quality of the action is equally as essential as the time of an action.

Dr. McDougall: Do other languages elaborate the differentiations of aspect beyond that which we find in Greek?

Dr. Thompson: Indeed so. Greek appears limited as compared with such a language as Nootka. In Nootka one finds eight aspects: the durative, the inceptive, the momentaneous, the graduative, the inceptive of graduative, the repetitive, the iterative, and the inceptive of iterative.

Dr. McDougall: But how would such forms as these ever be translated?

Dr. Thompson: Suppose that we use the word meaning 'to fly.' We would translate the durative as 'he was flying,' the inceptive as 'he began to fly,' the momentaneous as 'he flew off all at once,' the graduative as 'he began to set about flying,' the repetitive as 'he flew and flew,' the iterative as 'he flew from time to time,' and the inceptive of iterative as 'he began to fly from time to time.'

Dr. McDougall: But is it possible that languages employ aspect and completely avoid the tense relationship? As you know, they are very closely related in the Greek.

Dr. Thompson: In Tunica, three aspects, the simulfactive, the habituative, and the repetitive, and one mode, the conditional, are basic to the structure of the verbs. Whether the tense is present or past is supplied by the context.

Dr. McDougall: But, Dr. Thompson, don't you think that you are taking unfair advantage of me? Here I am defending Greek and Latin, and you marshal against me all various types of languages.

Dr. Thompson: It may be just a little unfair, but you will remember that you began the discussion with the intention of proving that Greek and Latin are the most perfect expressions of human thought in the world. But not only have we pointed out conspicuously contradictory factors within the structure of Greek and Latin, but we have also noted that in several matters other languages, and many of them ones which you insist are "primitive" and supposedly very inferior, are conspicuously superior in some details.

If we had the time, we might consider at some length one

aboriginal language, for example, Maya, Aztec, Zulu, Tagalog, or Sioux, and I am quite sure that you would be of the opinion that in terms of form these languages are equally as complex, elaborate, and ingenious as Greek or Latin. But fundamentally our discussion is not one of volume or detail of data so much as of viewpoint and perspective.

Dr. McDougall: There is a basic difficulty with discussing these matters. As presenting the case of the affirmative, I no more than volunteer a very simple statement, which I feel anyone would accept as true, and immediately you pounce on it with questions and some illustration from one of these primitive languages. One cannot refrain from having a healthy respect for some of these ignorant savages who speak languages as complicated as you describe them.

Dr. Thompson: Sometimes it is a little shocking to one's thinking to find that the aboriginal peoples of the world employ linguistic patterns every bit as complex as our own.

Dr. McDougall: I would dare venture the suggestion, however, (you see I am not insisting, for the more positive I am, the more opposed you are) that in the matter of the case system the Indo-European is without doubt the finest.

Dr. Thompson: I see you are going back to the Indo-European system, which had eight cases, rather than attempting to defend the five case system of the Greek, or the six cases of Latin, though of course the vocative case in each is a very limited pattern.

Dr. McDougall: Yes! The history of these languages leads us to consider that the eight cases, comprising the nominative, genitive, dative, locative, accusative, instrumental, ablative, and vocative, constitute a more perfect system. In Greek one finds the genitive and the ablative combined into one case, and the dative, locative, and instrumental into another. This of course produces a confused situation. I have even considered the advisability of teaching Greek as though it had eight cases.

Dr. Thompson: This has been done, and some of the adherents to the system are rather fanatical about the value of it, but it is only a matter of words. After all, what is the difference between calling a form a "genitive of separation" or an "ablative"? "A rose by any other name would smell as sweet." The principal difficulty with such a system of introducing an "ablative," a "locative," and an "instrumental" when there is actually no distinction whatever of form, is confusion

added to something already sufficiently complicated.

Dr. McDougall: But what about the logical advantages of such a division?

Dr. Thompson: If it is a matter of logic, then why stop with eight cases? There are a sufficient number of functional differences for at least twenty-five divisions. In other words, the eight case system fits neither the formal nor the functional pattern of Greek. If one retains the formal pattern, one is at least consistent on one score.

Dr. McDougall: But still you haven't discussed the matter of the superiority of the eight case system as an Indo-European pattern, which of course still exists in Lithuanian.

Dr. Thompson: No. We seem to have gotten off on the analysis of methods in teaching Greek. However, as to the eight case system, I do not see why it should be accredited with such distinction. No system ever represents completely logical divisions of all relationships between words. In comparison, there is much in the case system of Eskimo to recommend it. It is surely no less "perfect," if you insist on using this term.

Dr. Zilch: What is the case system in Eskimo, Dr. Thompson? I do confess that I am surprised that people who have to spend their time trying to find food out on the barren stretches of the Arctic would have the time to work out an elaborate case system.

Dr. Thompson: There is one thing that the study of descriptive linguistics should do, namely, prevent the student from drawing any conclusions as to the relationship between environment and language, and between language and the intelligence of the speakers.

Dr. McDougall: I realize you are very insistent on that point; but what about the Eskimo case system?

Dr. Thompson: Oh yes! Excuse me for getting off the track to lay down an anthropological dictum. The eight cases of Eskimo have been called absolutive, relative, locative, ablative, perlative, allative, similative, and instrumental.

Dr. McDougall: What relationships do these cases denote?

Dr. Thompson: The absolutive case denotes the subject of a verb which is not transitive, or the object of a transitive verb.

Dr. Zilch: That is quite a neat distinction, I would say.

Dr. Thompson: The relative case indicates the subject of a transitive verb and the substantive reference to a possessor.

Dr. McDougall: A most interesting division, indeed!

Dr. Thompson: The locative case denotes 'in' or 'at,' the ablative denotes 'away from,' the perlative denotes 'passing by or through,' the allative 'arriving at,' the similative 'like to,' and the instrumental 'by means of.'

Dr. McDougall: It would be fine if we had a similative in Greek. It would avoid the confusion in using the dative.

Dr. Zilch: But consider how poverty-stricken English is with only two cases in the nouns, a genitive case and, I suppose, what one should call the "common" case.

Dr. Thompson: English may be poverty-stricken in the sense of not having so many case forms, but it doesn't seem to hamper our speech in the slightest. We have a sufficient number of prepositions to make ourselves understood.

Dr. McDougall: I assume in advance that you will differ with me in the point I am about to make, but I do believe that it should be pointed out that the Greek exhibits a remarkable pattern in the modification of the syllabic within the stem to indicate the alternate forms of the stem occurring with different tense formations. For example, Greek has for the verb 'to leave' the stem [leyp-] in the present, [lip-] in the aorist, and [loyp-] in the perfect. The language indicates by the very forms of the stems the temporal quality of the action.

Dr. Thompson: Yes, the Ablaut series, as it is called from the German, is quite basic in Indo-European. We have it in English sing, sang, sung. But the Indo-European languages are not alone in having changes within the stems. The Semitic languages are famous for this.

Dr. McDougall: But do these pet languages of yours, the aboriginal ones, have such developments? After all, vowel gradation is a highly complex type of modification.

Dr. Thompson: I don't want you to misunderstand me. These aboriginal languages are not my "pets."

Dr. Zilch: No, no! Quite so! Only it is hard for us to

understand one who is attached to languages in general and not to any one language in particular.

Dr. Thompson: Thanks for the explanation. It diagnoses my case perfectly.

But let's get back to the ablaut series, or modifications of the stem to indicate different categories in the grammatical structure. One language which is perhaps as complicated as any other in this respect is the Chichimeca language of Mexico. For example, note the five principal parts of the following verbs:

	(1)	(2)	(3)	(4)	(5)
'to put'	..ˊ.hù	..ˋ.hú	..ˊ.nhí	..ˊ.nhí	..ˋ.hú
'to lose'	..ˊ.hò	..ˋ.hó	..ˋ.nhí	..ˋ.nhí	..ˋ.rhó
'to hear'	..ˊ.ʔò	..ˋ.ʔó	..ˋ.tí	..ˋ.ndí	..ˋ.rʔó

Dr. McDougall. I see that in the details of a system it is difficult to draw any conclusions. Perhaps, however, if we get to more basic grammatical concepts, we will be able to point out the excellence of the classical languages, and for that matter, all the Indo-European languages. Wouldn't you consider the Indo-European languages remarkable in the great number of parts of speech? We have nouns, verbs, adjectives, adverbs, pronouns, conjunctions, particles, and numbers. This is undeniably remarkable.

Dr. Thompson: Finally, you have hit upon something rather distinctive in the Indo-European languages.

Dr. McDougall: I am glad that at least you are willing to concede a point, and remember that this point is a very important one, for it underlies all others. The superiority of a language should be directly proportionate to the elaboration of its classes of words, that is, its grammar.

Dr. Zilch: Don't try to make a raft out of this single straw which Dr. Thompson hasn't succeeded in sinking. He is a man who gives one a straw with which to keep afloat, but nothing more. At times he has held out some false hopes to me during our discussions of some of these linguistic problems.

Dr. Thompson: You are a little harsh with me, Dr. Zilch. I try to be honest, and have no desire to prolong agony.

Dr. Zilch: But you shall see, Dr. McDougall. He will admit

that Indo-European languages have many parts of speech, and then declare that a great many parts of speech are an inconsequential matter in a language.

Dr. Thompson: I should turn this discussion over to you, Dr. Zilch. I've told you before that you should be a descriptive linguist.

Dr. McDougall: But my dear Dr. Zilch, you are too fine a scholar to go in for this new-fangled stuff.

Dr. Zilch: Of course, I wouldn't consider it seriously, but I have often thought what a shock I could give my colleagues of the English department if I came out openly for such new ideas.

Dr. McDougall: Then you are a secret disciple of this methodology, Dr. Zilch? You rather deceived me in inviting me over here to talk with Dr. Thompson.

Dr. Zilch: Nothing of the kind! But even an old bachelor can change. However, all such talk of espousing the cause of descriptive linguistics is entirely off the record. There are times, however, when old men need mental rejuvenation, and talking with Dr. Thompson has given me some completely new ideas about old problems.

Dr. McDougall: I am much surprised, Dr. Zilch, that you would be so easily swept aside. However, let us go back to the point that I was making, and to which you volunteered to give Dr. Thompson's reaction. What about this matter of the parts of speech?

Dr. Thompson: You are perfectly right about Indo-European languages having a great abundance of parts of speech, but multiplicity and complexity are not virtues in themselves. The Turkish language has been best described on the basis of only two principal types of words, noun-like words and verb-like words. With these two such types of words the Turks seem to manage satisfactorily enough.

Dr. McDougall: But how can a language dispense with adverbs to modify verbs?

Dr. Thompson: That isn't so difficult. We have words in English which modify verbs, but are not adverbs.

Dr. McDougall: How is that?

Dr. Thompson: Well, we say I came home this morning. Both home and this morning modify came, but are not adverbs.

Dr. McDougall: But they act like adverbs.

Dr. Thompson: True! And this is just the point. We have a special class of words which modify verbs (however, we should also remember that in general these same words may modify adjectives), but in another language nouns or particles may be the only words which modify verbs.

Dr. McDougall: But there is one point at which your system must break down. You cannot possibly get along without numerals. All people on the face of the earth are able to count.

Dr. Thompson: Of course they are.

Dr. McDougall: Fine! At last I have one point on my side.

Dr. Zilch: But it is not likely to be with you long.

Dr. McDougall: Don't be such a pessimist.

Dr. Zilch: Not at all, but I have had a little experience talking with Dr. Thompson.

Dr. McDougall: Well, what about the numeral situation, Dr. Thompson?

Dr. Thompson: It may seem a little strange to you, but in the Muskogee language, commonly called Creek, words which we consider numerals and adjectives are both treated identically like verbs.

Dr. McDougall: I suppose you have principal parts to the numerals then?

Dr. Thompson: You are exactly right! Every verb has five principal parts, and so does each numeral. For example the five principal parts of the singular form of 'to buy' are: nis-, níhs-, nî·s-, ni·s-, and ni·ns-. Similarly, the five principal parts of the numeral 'two,' which patterns identically as a verb, have the following forms, which correspond to the more common verb types: hokkol-, hokkóhl-, hokkô·l-, hokkó·l-, and hokkǒ·nl-.

Dr. McDougall: What are these various principal parts used for?

Dr. Thompson: Well, the first denotes the completive and is

tenseless. The second is employed in the immediate past, the third for the remote past, the fourth for the incompletive in all tenses, and the fifth for the continuative or intensive in all tenses.

Dr. McDougall: I must admit that you have made your point, Dr. Thompson. I have been impressed, as you have spoken, with the rather complicated word structure, or "morphology" as you call it, in so many of these so-called primitive languages. I would venture the conjecture that though these languages do have rather cumbersome words (if you will permit me to use such a word as "cumbersome" to indicate a judgment on my part), nevertheless, these same languages are rather inadequate in the more extensive patterns of syntax.

Dr. Thompson: I don't wish to be hypercritical of your judgment, but why wouldn't it be possible for you to be completely objective? You only consider something "cumbersome" from the standpoint of English or the classical languages, but isn't that a very limited viewpoint? Some of the long words of these aboriginal languages do not impress me as being any more cumbersome than premillenarianism, or the word which is so often quoted for an English monster, namely, antidisestablishmentarianism. However, to come back to what you said about the deficiencies of syntax, I would say that one is not likely to find in these aboriginal languages the complex and somewhat highly artificial elaboration of syntactic arrangements which one finds in the periodic style of Thucydides or Isocrates. Do not, however, imagine that non-Indo-European languages are without syntax. The Tunica language, for example, has a comparatively elaborate sentence structure. There are three types of sentences: simple, compound, with or without coordinator, and complex, consisting of a main clause and one or more of four types of subordinate clauses, namely, dependent, complementary, relative, and adverbial. Dependent clauses are like main clauses except that the predicative word has a subordinating "post-fix." Complementary clauses may be clauses of direct or indirect discourse or clauses indicating "what" or "where." Relative clauses are used as independent subject or object modifiers. Adverbial clauses are "where" clauses or locative clauses. The syntactic elements of the clause are a predicative word, an independent subject, an independent object, a subject or object modifier, a predicate modifier, a predicate complement, and a sentence connective. The order of these elements is determined by very definite patterns. The system of agreement between certain elements in the clause is also well developed.

Dr. McDougall: That is really quite enough to prove your point,

Dr. Thompson. I had never thought such a system was possible in an aboriginal, unwritten language.

Dr. Thompson: Writing must always be considered as very secondary. The Greek language appears to have been every bit as elaborate before it was written as after.

Dr. McDougall: Yes, I know. The Homeric epics indicate an abundance of grammatical forms. However, I am somewhat concerned about the lexical problems in connection with languages. Shouldn't this enter our discussion?

Dr. Thompson: Yes and no.

Dr. McDougall: Again you give one of those double answers of which you are so fond.

Dr. Thompson: I am sorry. Let me explain. I answered "yes" because I feel that it would probably be well to dispel some of your possible prejudices. On the other hand, I say "no," because we began this discussion with the intent of discussing the form of language principally.

Dr. McDougall: Then you are beginning to weaken somewhat as you consider the lexical phase?

Dr. Thompson: No. I am only saying that you are shifting somewhat your approach to the problem of excellence.

Dr. McDougall: Of course, I am not one to insist that a large vocabulary is in itself a matter of excellence. One does not need the vocabulary of Woodrow Wilson to say some very important things in a very significant and striking manner. Don't you find, however, that aboriginal languages are often lacking in certain lexical areas?

Dr. Thompson: Exactly what do you mean?

Dr. McDougall: What about emotional words? Do you find adequate designations for psychological states?

Dr. Thompson: Of course. If people have feelings, and they all have, regardless of race or color, they are going to want to talk about them. But they may analyze these emotional states in quite a different linguistic manner from what we are in the habit of doing.

Dr. McDougall: How so?

Dr. Thompson: In the Muskogee, or Creek, language many of the psychological concepts employ the word for 'heart' incorporated within the verb. Hence, "to become sorrowful" is literally 'to become heart-sick.' "To become frightened" is literally 'to become heart-lost.' "To become brave" is 'to become heart-oned,' or in other words, 'heart' plus 'get to be one.' Compare this with the English singlehearted.

Dr. McDougall: The recognition of the 'heart' as the center of the emotions is undoubtedly almost universal, is it not?

Dr. Thompson: Nothing of this type should be spoken of as almost universal. In fact such is not the case. For some people the center of the emotion is the 'bowels,' for others the 'liver,' and even for some the 'throat.' In the Choctaw for example, which belongs to the same family as the Muskogee, some words indicating emotion employ the word for 'neck' as an incorporated word. Hence, "to tremble through fear" is literally 'to neck-tremble.' "To be in a passion" is literally 'to be neck-heated.' In many of the Sudanic languages the liver is the center of emotions. Accordingly, in the Kabba language "to be astonished" is 'to shiver in one's liver' and "to be peaceful" is 'to be cool in one's liver.'

Dr. Zilch: My! Such languages should have great rhetorical possibilities.

Dr. Thompson: Certainly! Greek and Latin are not the only worthwhile vehicles of human thought.

Dr. McDougall: I must confess, Dr. Thompson, you have defended your position well. But permit me to introduce this other matter. Perhaps you will disagree with me, for you have so consistently disagreed with me all evening. Nevertheless, I do want to suggest one further consideration.

Dr. Thompson: By all means do so. Undoubtedly I've been rather obstinate.

Dr. McDougall: Not at all! I am glad that you have done so, for this is the reason I came over tonight. I have wanted to know about your methods and approach to linguistic procedures, and I certainly have found out. My students haven't been exaggerating when they have said your position is diametrically opposed to mine. I realize that it is, and it interests me greatly.

Dr. Thompson: If you are interested, that is all that anyone could ask. Dr. Zilch became interested, and now he is almost

a secret believer.

Dr. Zilch: Tut tut! That is completely off the record, you know.

Dr. McDougall: You need not worry about my being converted. I have much too extensive an academic background to be led aside by novelties. However, getting back to what I was going to say, would one not be correct in saying that an inflected type of language is undoubtedly the highest type?

Dr. Thompson: No. I can't agree with you, for I can't understand how you could define the criteria for "highest" in speaking of some type of language.

Dr. McDougall: I realize that is difficult. It would be too much of a problem to define completely objective criteria, and I know that you and I would never reach any agreement as to such criteria. However, it seems to me that we could face the question practically by stating that there is a definite correlation between inflected languages and the social and economic advance of the peoples who speak such languages.

Dr. Thompson: Isn't this only another way of stating the same thing that you have contended in the previous arguments? You are only lumping together all your misconceptions about language and culture. The type of language which a people speak is a cultural accident and in some ways no more significant than their styles of tattooing. Consider the following situations. Greek and Latin had quite a little inflection. But the Pame language of a small tribe of poverty-stricken, backward Indians of Mexico has a much more complicated inflectional system than Greek or Latin. Chinese used to be inflected, but the inflectional system was lost, so that now words are not inflected, but the development of compounds and phrasal combinations is such in modern Chinese that eventually some of these combined forms may be considered as bound, so that Chinese may again have an inflected system. All languages may adequately express the thought of the people who speak them, and such languages all have the potentiality for noble thoughts to be expressed in artistic ways, hence constituting literature.

Dr. McDougall: Such linguistic attitudes as you propose necessitate one's revamping completely the basic classical attitude toward language matters. Such revolutionary ideas would bring grammatical chaos to our philosophical judgments about language in general.

Dr. Thompson: One never needs to fear truth. Truth may be revolutionary but it is always to be preferred to hallowed falsehood.

Dr. McDougall: I'm sincerely thankful for this exposé of linguistic attitudes and I realize our discussion has been largely negative, at least as regards the positive contribution of descriptive linguistics. Please do me the favor of accepting my hospitality next week. We will drop our generalized arguments about attitudes and you can have an opportunity to explain something of the content and procedure of your system.

Interlude 4

DESCRIPTIVE LINGUISTICS GETS A HEARING

Dr. McDougall: I confess, Dr. Thompson, we were not very fair with you last week. We never gave you the briefest opportunity to explain your actual methodology and procedure, to say nothing of the findings which you descriptive linguists make.

Dr. Zilch: Nevertheless, Dr. Thompson, you succeeded in giving us enough data, so that we are now genuinely interested in knowing how you go about your work.

Dr. Thompson: Frankly, I've enjoyed your challenges to my every statement.

Dr. McDougall: To say nothing of your challenges to ours. But be that as it may, I am genuinely curious to know how you go about reducing a language to writing. Let us suppose that you dropped down out of the skies in a parachute and landed near some village in central New Guinea. Just how would you go about communicating with the natives?

Dr. Thompson: Under circumstances other than preparations for a cannibal stew, I believe one could do something at least. Much depends on the cooperativeness of the natives. However, there are certain methods which one can employ in this so-called "monolingual approach."

Dr. Zilch: I suppose first you'd get out your little notebook and begin writing down words.

Dr. Thompson: Yes, provided the natives didn't appear to be suspicious concerning the writing, as perhaps some magic way of capturing their souls. Sooner or later I'd try to write forms down so as to memorize them and also as a better means of comparing the constituent parts of the expressions.

Dr. McDougall: I suppose that first of all you would try to obtain the native expression for "What is this?"

Dr. Thompson: Yes, but it isn't so easy as all that. Usually, however, one will eventually hear some expression from a native which seems to be equivalent to "What is this?" But

by wearing a broad smile and having a friendly attitude, which is at least somewhat equivalent in all cultures, one can make a desperate attempt to communicate by speaking English, Dutch, or any other language from which some stray words may have been carried into the interior. Then the natives at least begin to realize that one wants to speak. Finally by pointing, whether with the finger, chin, or lip, depending upon what one has observed from natives, one can usually get some response.

Dr. Zilch: I suppose you point to various objects nearby and then try to repeat the words. But how do you know you are saying the right thing?

Dr. Thompson: One cannot be sure. In one instance the native consistently replied "the end of your finger" when a linguist pointed to objects and appeared to be demanding a reply. A similar response to each item means that something is wrong. But if one accurately mimics words which are given, the native is usually very delighted and very rapidly catches on to what is desired.

Dr. McDougall: This theory may sound all right, but have you ever come anywhere near experiencing this type of situation.

Dr. Thompson: No, but I have friends who have entered new linguistic areas and encountered almost the same types of problems. Though under rather artificial circumstances, I have sometimes approximated such situations by using an informant who spoke a language of which I knew nothing. Both the informant and I would rigidly refuse to employ any intermediate language, but purely by gesticulating and acting out the meaning of words, I would elicite from the informant various expressions of his language. On the basis of the data gathered in an hour or so, it was then possible to describe roughly some of the conspicuous features of the language and to point out the ways by which one could procede to a more complete analysis.

Dr. McDougall: I'm ready to concede that this can be done, for I've read about missionaries doing it. I am, however, much more interested in the more usual procedure, where the linguist and the native have some language in common.

Dr. Thompson: In reality, except for the initial stages, the procedures are not greatly different. In a monolingual approach one must master a great number of details more rapidly and the analysis is more difficult, and depending upon the circumstances, frequently more trying. Nevertheless, it is

amazing how much of a language one can learn in a short time if completely dependent upon such knowledge for the necessities of living. Having once been forced to learn some Tarahumara in order to bargain for food, I was frankly surprised at the ease with which I seemed to acquire the vocabulary.

Dr. Zilch: I remember that on the first day I talked with you, you mentioned something of the procedure of starting to work with a language. I wish that you would elaborate what you said then, for I cut you off with my continual disagreement.

Dr. Thompson: In getting the basic data for making an analysis of the structure of a language, we frequently speak of approximately five steps in procedure. First, we ask the informant for the names of simple objective items such as 'tree,' 'bush,' 'horse,' 'grass,' 'river,' 'sky,' 'cloud,' 'sun,' and 'moon.' In the next stage, we ask for these same supposedly noun-like words in combination with possessors, for example, 'my tree,' 'your tree,' 'his tree,' 'my horse,' 'your horse,' 'his horse,' etc., though being careful not to ask for something possibly ridiculous such as 'my moon.'

Dr. Zilch: Yes. You mentioned that type of procedure before. I suppose you ask for those forms, because you already have the nouns, and you are simply adding one more set of forms.

Dr. Thompson: Exactly. Then, the third stage is something like the second, for we add verb expressions to these pronominal elements. Relationships are in some instances completely lacking, but frequently, in asking for 'I am running,' 'you are running,' 'he is running,' 'I will hit him,' 'you will hit them,' etc., one encounters the same pronominal elements, or at least related ones, as were found in the possessive series of step two.

Dr. McDougall: But do you attempt to fill out the paradigms of all the verbs you can think of?

Dr. Thompson: Most decidedly not. That would usually be a waste of time, at least before sampling some of the material from the following steps of procedure. In the fourth type of procedure we ask for complete sentences, such as, 'the man killed the horse,' 'the horse kicked the man,' 'the man saw the bear, and 'the bear ran away.' If possible, such sentences are even arranged into a narrative sequence.

Dr. McDougall: Why don't you simply ask the native speaker to tell you a story?

Dr. Thompson: That is precisely what we do after getting these introductory sentences. But the purpose of step four is to prepare us for the task of actually taking down texts in the language.

Dr. McDougall: Why not have them transcribed by some automatic recording device, and then you could write them down from the records?

Dr. Thompson: That seems easier than it actually is. After a person knows a language, it is quite easy to transcribe from records, but in the initial stages of language learning and analysis, it is quite difficult, if not impossible, to make adequate written transcriptions from mechanical recordings.

Dr. McDougall: Why not slow the record down?

Dr. Thompson: But if one does not have a special device for sustaining the proper pitch, the sounds die off into an almost unintelligible mumble.

Dr. McDougall: No doubt you are right. I frankly know nothing about it. But please explain what you mean by a text.

Dr. Thompson: We can define a text easily as saying that it is anything which the native utters, which is not in direct response to some such question as "How do you say so-and-so?"

Dr. Zilch: Do you consider every-day conversation as text?

Dr. Thompson: Indeed. It is the best possible type of text, for it represents the living language as it is actually used by the people.

Dr. Zilch: I presume that you must have some system of shorthand for taking down such texts.

Dr. Thompson: It is rather impracticable to attempt a system of shorthand before one has learned the language rather well, for so many details would have to be filled in; and by the time the native is asked to repeat the conversation from the rather imperfect and sketchy shorthand recording, much of the significant detail of the text would be lost.

Dr. Zilch: What types of texts do you gather first?

Dr. Thompson: It is usually possible to get stories from adults, particularly from the old men. For some little remuneration or in response to a genuine interest expressed by the

investigator some old men take great delight in spinning out the tales which they have told or heard frequently around the village campfires.

Dr. McDougall: I am very much interested in what you do with a text once you have it, but first I'd like to go back to some matters which you mentioned before. You just assume that one can write down the forms of words without any difficulty in the least. Once on a trip to Egypt I tried to write down some Coptic words which I picked up from natives, for I wanted to compare them with terms which I had gathered from old manuscripts. I found, however, that it wasn't so easy. The sounds seemed strange, and I didn't know exactly what symbols to employ. When the native would repeat the words, he sometimes seemed to use different sounds. Mind you, that occurred with a language which is reduced to writing. What can you ever do with one of these aboriginal languages? How do you know that you have written the words correctly?

Dr. Thompson: Your experience is a very common one, and illustrates the necessity of some type of procedure for analyzing in any language those particular phonetic distinctions which are significant. To this procedure, or set of procedures, we give the name phonemics, and it would be quite impossible to treat all the phases at this point. If you are interested, you should read Professor Kenneth L. Pike's book on Phonemics. It treats all these problems in detail. But in passing I might mention something of the difficulty which you had in writing down Coptic, and we could touch briefly on similar problems which linguists have in writing down any language.

For example in Comanche, the word which one finally discovers should be written as 'surï·kïse? 'they' is heard in a variety of forms. For one thing r frequently sounds like d; since it is not like the English r, but more like a Spanish r, namely, a flap-like sound; and though the tongue is grooved, so that the quality reminds one of r, the flap-like characteristic makes us as English speakers interpret this as a d. The phoneme which we write with an ï with two dots over it, is what is called a high central vowel. Actually, we might call it a cross between i and u.[1] The lips are still spread, as in the case of an i, but the back or mid part of the tongue is high, as in the case of u. The tongue position is, however, a little further front than in most pronunciations of u. Since this vowel is central in quality, one tends to hear it as a variety of sounds. Sometimes it appears to be an i,

[1] As throughout this book, such symbols are employed with their conventional phonetic values and do not reflect usual English usage.

sometimes a short a, or perhaps better an ə, and on rare occasions it appears to be u. Some of this difficulty is certainly due to the particular training which we as English speakers have, since we always tend to hear strange sounds in terms of something familiar to us.

Dr. Zilch: And you imply, therefore, that a speaker of another type of language would not have these same difficulties?

Dr. Thompson: No indeed. I am sure that an Acooli speaker from Kenya in Africa would have no such difficulty, for with a complex system of eleven qualitatively distinct vowels, one of which coincides very closely with this Comanche central vowel, there would be practically no problem interpreting this phonemic entity.

Dr. Zilch: But would this Acooli speaker have other difficulties which we would not have?

Dr. Thompson: He would. For example, he would no doubt assume that the stress of the Comanche words, which we have indicated by an apostrophe before the stressed syllable, is a matter of pitch, for the Acooli language makes pitch distinctions. On the other hand, he would have less difficulty in detecting the long vowel, which we have indicated with a raised dot, for Acooli has similar types of long vowels.

Dr. Zilch: Are you implying that a native Acooli speaker would make a better linguist than an English-speaking person.

Dr. Thompson: Not in the least. I am only saying that one's language experience is a very important factor in assigning the value to and determining the basic characteristics of certain sounds.

Dr. McDougall: But isn't phonetics supposed to give one a larger linguistic basis upon which to work? I thought that that was the whole purpose of phonetics.

Dr. Thompson: Precisely so. By a study of phonetics we attempt to overcome the shortcomings of our own language and the narrowness of our own experience in detecting sounds. But even at best, one's own language continues to play an important part in one's subjective analyses, even if it does not do so in the more objective statements of one's findings. One of the best evidences for this can be found in language committees composed of people with different language backgrounds. When they are called upon to decide orthographic questions for some language newly reduced to writing, it is amazing, as well as exasperating, the way in which each person's

mother tongue dictates his or her viewpoints, even though the person is conscientiously unaware of such subjectivity.

Dr. McDougall: Is your science of phonemics designed to overcome this subjectivity?

Dr. Thompson: It is designed to do such, but it frequently fails to accomplish its purpose. Not, however, because of the fallacy of the procedures, but because of the difficulties which some people find in applying the methods, when they appear to contradict one's "feelings" in the matter.

Dr. McDougall: But continue what you were saying about that Comanche word. What does that capital I with two dots stand for?

Dr. Thompson: That is actually a voiceless vowel. To the average English speaker, it appears at first to be an h, but continual comparison reveals an entire series of such h's, each with the quality of a particular vowel. Accordingly, we must set up for the language six voiceless vowels.

Dr. McDougall: But do you mean to say that an h-like sound can be a syllabic?

Dr. Thompson: It functions precisely as such. It takes the time of a vowel, it occurs in the same positions as a vowel; accordingly, it is a vowel, or a syllabic, if you prefer.

Dr. McDougall: I never heard of an h-like sound functioning as a vowel.

Dr. Thompson: There are a great many strange things about languages. In some we may have zero syllabics, if you wish to call them such, or you may say that a consonant functions both as a consonant and as a vowel. For example, in the Maya expression t kaaho? 'to our village' the word t is usually pronounced with a very slight, open, voiceless transition to the following k, but the length of time during which this dental stop is held is equivalent to a short syllable. Structurally and functionally this t and whatever transitional phenomena occurring with it constitute a syllable.

Dr. McDougall: But you do not discover this at first, do you?

Dr. Thompson: Most decidedly not. We can only make decisions about the structure of a language after we have found out a good deal about it. But even our first observations about a language show us that there is much of what we may call "free

variation." This is the trouble which you had with Coptic.

Dr. McDougall: But we do not have such free variation when we speak English.

Dr. Thompson: We most certainly do. The fact that you are unconscious of such differences is the very evidence that such variations are meaningless. For example, we may pronounce the word hat sometimes with a puff of breath as we release the t and sometimes with no audible release. To a Mazateco speaker, where the release or lack of release would make a difference of meaning in his language, such free variation as occurs in English would seem to be unexplainable, if not linguistically unpardonable.

Dr. Zilch: But sounds also change because of the other sounds near them, do they not? Take that word hat, and compare it with had. The vowel seems very much longer in had, and yet it seems to be the same vowel. Do you phonemicists treat such differences as significant?

Dr. Thompson: We do treat such differences, but whether such differences are significant for the particular language depends upon the structure of the language. Such a difference of long and short vowel quantity is considered in English to be a "conditioned variation," since before all voiced, syllable-final consonants the vocalic is longer than before voiceless consonants in similar positions. Because such differences are completely conditioned and accordingly do not differentiate meanings, they are not phonemic. On the other hand, in Eskimo such differences of length are significant in determining meaning. Note the two words anuun 'paddle' and anun 'man.' (Writing the vowel twice simply indicates a long vowel.) However, in Eskimo, where the linguistic investigator tends to hear at least five or six qualitatively distinct vowels, there are in actuality only three phonemic vowels, i, a, and u.

Dr. McDougall: But if the linguist hears all these different vowel sounds, how can he discard the differences? He must depend on his ears, must he not?

Dr. Thompson: It is true that the linguist must depend on his ears, for speech is fundamentally a system of acoustic signals. But in making such signals the near-by signals may influence each other. In the case of Eskimo there are two sets of back consonants. The first, or palatal set, consists of a voiceless stop and a voiced continuant pronounced with the mid part of the tongue against the hard palate. The

second, or velar set, consists of the same type of stops pronounced against the back part of the velum. When the vowel phonemes i or u are contiguous to these back consonants they sound like ɪ (or ɛ) and o respectively.

Dr. McDougall: But if they sound like ɪ and o, why are they not ɪ and o?

Dr. Thompson: Because a contrast between i and ɪ and one between u and o never actually makes a difference in meaning. The phonetic contrasts are always conditioned.

Dr. McDougall: I can't see it.

Dr. Thompson: Well, consider the Eskimo's reaction to English. In the word keel the k- sound is pronounced far front, as in his word nigisuktuŋa 'I want to eat.' But in call the k sound is pronounced in the back of the mouth as in his word nigisuqtuŋa 'I know how to eat.' The Eskimo would consider the two k sounds in English as two different types of sounds, for in the Eskimo language these two sounds may differentiate words. Compare also iqaliaktuk meaning 'the two went fishing' and iqaliaktuq meaning 'he went fishing.' The only difference in these words is the front or back position of the final sounds. As English speakers we insist that the two k's in kill and call are not different. If we admit any phonetic difference, we insist that it is because of the character of the following vowels. We say that before a front vowel the k is front and before a back vowel the k is back.

Dr. McDougall: Well, on the basis of that type of distinction I guess that your explanation does make sense. But you will admit that it is difficult to understand.

Dr. Thompson: Indeed it is, and you must not think that I have in any way done justice to such a very difficult subject.

Dr. McDougall: Are there other languages that exhibit this same type of conditioning of vowels and back consonants? How widespread is this phenomenon?

Dr. Thompson: The effect of back consonants upon high vowels is quite common. For example, this occurs in some of the Mayan languages of Guatemala, but in these languages there are at least five phonemically distinct vowels. In the Quechua language of Peru, however, there is an almost exact parallel to the situation in Eskimo. The dialect of Cu co has two sets of back consonants and only three vowels with very similar conditioned variants.

Dr. McDougall: Does that mean that the languages are in any way related?

Dr. Thompson: Not in the least, even though the phonological characteristics of back consonants and a three vowel system are not by any means the only formations which these two languages have in common. In both Eskimo and Quechua the stems are initial to the word, and derivational and relational elements are expressed by postposed elements. Even the relative position and the structural coalescence of the pronominal suffixes are similar.

Dr. McDougall: But isn't that enough to prove some sort of original common stock?

Dr. Thompson: Such structural parallelisms are interesting, but they do not prove genetic relationships. Only systems of sound correspondences between sets of words can prove that languages are related.

Dr. Zilch: But can you solve all of your phonemic problems on the basis of free variation and conditioned variation? If so, phonemics would not seem very difficult.

Dr. Thompson: The greater percentage of problems can be solved by these two principles, but in some instances we must also consider the distributional and functional characteristics of the sounds.

Dr. Zilch: By distribution do you mean frequency of occurrence?

Dr. Thompson: No. We mean rather positions of occurrence. For example, in Comanche there is a word which we may write as tsa·ti?u 'it is good.' The initial sound may be called a dental affricative with a sibilant (s) off-glide. There is also a t in Comanche and an s. Should this combination be considered a cluster of two phonemes or should we analyze it as a unit phoneme made up of a stop plus a kind of off-glide?

Dr. McDougall: What difference would it make anyway? I don't see the point of worrying yourself with such details.

Dr. Thompson: Your objection is well made. It does seem rather foolish to "worry" about such matters, as you say, but there are some practical as well as theoretical values in reaching a conclusion on such matters. In the first place, if the language does exhibit any structural features which an alternate treatment of this ts combination would influence, then we should at least state the facts. Also in the practical

handling of this feature in the description of the structure of Comanche we might find one treatment superior to the other.

Dr. McDougall: Well, what is the answer to this problem as regards Comanche?

Dr. Thompson: In terms of the distribution of sounds in Comanche this ts combination functions as a single unit. On this basis we may say that initially in any syllable there is only one consonant phoneme. The other interpretation of ts would force us to make an exception for this one phonetic cluster. The pressure of the phonological pattern which "permits," as we say, only one phoneme initially in the syllable, makes it necessary to interpret this ts cluster of sounds as a single phoneme.

Dr. McDougall: And how would you write it?

Dr. Thompson: That is quite immaterial, either with c, or perhaps as ȼ, as some prefer.

Dr. McDougall: But the writing of phonemes should not be an immaterial matter? What about the poor Comanches who might want to learn to read their language?

Dr. Thompson: Actually, you have introduced two problems. From a theoretical standpoint we could symbolize a particular phoneme in any way we choose, by drawing a picture of a house, a bird, a dog, a camel, etc. Our choice is completely arbitrary. What we must preserve is the consistency within the system.

Dr. McDougall: You would suggest then complete orthographic esthetic freedom in the good old Egyptian hieroglyphic way? But we have passed quite a distance from those early symbols representing an eagle or a snake. We already have an alphabet.

Dr. Thompson: Right you are. From a theoretical standpoint it makes no difference what symbol one chooses for Comanche, but it should be a unitary symbol, since the phoneme functions as a unit. But from a practical standpoint, considering the present degree of bilingualism among the Comanches and the employment of symbols in English, I would recommend using ts, despite the scientific value of the phoneme involved.

Dr. Zilch: Apparently, even the phonemicists come down out of the clouds to do a practical piece of work. From what I have been reading on phonemics, I thought no such concessions to

practicality were permitted without complete ostracism from the esoteric clique.

Dr. Thompson: It really is not quite as bad as all that. But one should first make the proper scientific analysis, and then one can more readily evaluate the practical concessions which must be made to fit the actual situations.

Dr. McDougall: This situation in Comanche appears to be clear-cut enough. I would venture to say, however, that you may find situations in which the distributional characteristics are not so obvious. Don't you find contradictory situations?

Dr. Thompson: We most surely do; for example, one situation in English. The initial consonantal element or elements in whale (contrasting with wail) may be differently interpreted. Some would say that this initial voiceless bilabial continuant is a single phoneme, and they show corresponding series in t (tin) : θ (thin) and d (den) : ð (then). On the basis of this series W (whale) would correspond to w (wail). On the other hand, the initial consonantal features of whale may be considered as consisting of hw, and as such they would be structurally analogous to the initial cluster sw in swell. If a phonetically complex item such as the initial consonantal feature of whale can be related structurally to two phonemes, already existing as separate units in the system, and if in this combination they show parallelism to other clusters, such a phonetically complex item is usually treated as a cluster, rather than a single phoneme.

Dr. McDougall: But I detect in your statements a certain reserve and lack of authority. You continually protect yourself with such words as "usually," and "generally." Are there no certain criteria upon which you can base your judgments?

Dr. Thompson: Frankly, no. No one has yet been able to define the precise limits of phonetic likeness which must exist before we may consider that two different sounds belong or do not belong to the same phoneme. In the matter of distributional factors, the features of congruity and pattern balance are even more difficult to define arbitrarily.

Dr. McDougall: I should think that you would reach some agreement on such basic principles before you would construct entire phonological systems. These are houses on sand.

Dr. Thompson: To an extent they are, but they are very convenient houses, and also very valuable ones. And even though

the winds and the waters of dissension beat on the house, they usually impair only a small part of it. You must not think, however, that descriptive linguists are the only descriptive scientists who are lacking in such definitive criteria. The botanists and zoologists are likewise just as much at a loss to classify certain border types of phenomena.

Dr. McDougall: I'm willing to admit the general reliability of your procedures in phonemics, at least for the present, but I would like to have you consider in a little more detail what you mentioned about those procedures in examining data. Take an actual language and show us what you get and how you go about analyzing it?

Dr. Thompson: It is very difficult to do very much without a great deal of detail, far beyond our ability to discuss in such an informal manner. But I believe I can illustrate most of the difficulties and some of the results by suggesting a few features which we have noted in Eskimo and Comanche, and possibly in Kizinza, a Bantu language.

Dr. Zilch: Here, take this pad of paper and write down the forms. It will be easier to discuss them.

Dr. Thompson: Well, here are some forms which were given us by an Eskimo informant from Barrow, Alaska.

iglu 'house'
igluga 'my house'
iglun 'your (sg.) house'
iglua 'his (or her) house'
iglut 'houses'
igluni 'in the houses'
iglutin 'your (sg.) houses'
iglutiŋni 'in your houses'
iglumi 'in the house'
iglumni 'in my house'
iglutimni 'in my houses'
igluk̬aga 'house I occupy at intervals'
igluiŋakaga 'my former house'
igluiŋakamni 'in my former house'
igluk̬aktuŋa 'I have a house'

Dr. McDougall: There are a great many holes in such a paradigm.

Dr. Thompson: This is not intended to be complete, but there are forms for all persons, singular, dual, and plural, with eight case endings, and a considerable number of so-called derivative suffixes, as well as enclitics. Note also that

the basic noun stem iglu (from which of course we have borrowed the word igloo) may be made a verb and as such occurs with all the many hundreds of suffixial combinations which characterize the synthetic verb complex.

Dr. Zilch: I can see a certain system to the structure, and it appears that the types of suffixes have certain relative orders.

Dr. Thompson: They do. In the noun expressions the relative order of items is first the derivative elements (e.g. -iŋa meaning 'former' and -ka or -kaa denoting contemporaneous non-possession); secondly, suffixes indicating number; thirdly, pronominal suffixes denoting the possessors; and fourthly, the suffixes defining the so-called cases, in this instance the locative.

Dr. McDougall: On the whole, that is not such a difficult system.

Dr. Thompson: In general that is true, but there are many arbitrary classes of words and a good many instances in which suffixes fuse in such a way that the constituent elements cannot be easily distinguished.

Dr. McDougall: Am I to assume that the descriptive linguist first isolates the various elements, for example, -mi or -ni 'in,' -a 'his,' -ga 'my,' -t the pluralizer, -n, -in, or -iŋ 'your,' etc., and then procedes to describe the way in which these various types of suffixes are added to the stems?

Dr. Thompson: Yes. First, we must isolate and identify the various constituent parts, and then we must describe the manner in which these constituents and groups of constituents are organized in the structure of the language. In describing the structure of Eskimo words we would analyze the constituent parts of the successive layers of immediate constituents. We might prefer to start with the outermost layer and peel the words apart, as we might an onion. Or we could begin with the stem and describe the successively added layers.

Dr. Zilch: But all the words do not have all the successive layers.

Dr. Thompson: True. The word iglu is a simple stem. In Eskimo we must state that all noun suffixes are optional formations. When certain of these formations tend to occur together, that likewise is part of our description. Ultimately, we describe total distributions of all the constituent parts, but we do

this systematically in terms of the broad patterns of the language.

Dr. McDougall: But how do you know that what you have written are actually single words and not combinations of words? I see no reason for not separating these constituent parts. It is easy enough to analyze their meaning.

Dr. Thompson: In the illustrations which we have given that is somewhat true, but for many structures it is not quite so obvious. The principal reason why these forms are written as single words in Eskimo is that they must be spoken as a unit. That is to say, the constituent element -ga 'I' means absolutely nothing when uttered alone. It is structurally somewhat equivalent to the suffix -s in runs.

Dr. McDougall: But is it possible that Eskimo speakers do not readily recognize the constituent parts of these words?

Dr. Thompson: That is right. They are no more aware of the constituent elements than the average English-speaking person is conscious of the constituent parts of unfriendliness, perhaps even less so.

Dr. McDougall: And I suppose you would deny any relationship between this non-analytical ability and general intelligence.

Dr. Thompson: I certainly would. Because an English-speaking person may not have equated the stems -ceive in receive and -cep- in reception is no evidence of inferior analytical ability. As regards adaptation to environment and general resourcefulness, which surely has demanded keen analytical ability, the Eskimos are certainly in no way inferior to any other peoples.

Dr. McDougall: I presume you are right. At any rate, I do not want to return to the argument of last week. Nevertheless, in regard to this matter of word division, do you not have some criteria other than native understandability?

Dr. Thompson: Certainly. Our decisions are not made purely on the basis of native subjective reactions. There are such criteria as stress. For example, in Spanish the usual location of the stress on next to the last syllable helps us to identify the length of Spanish words. In Bohemian there is a similar marking device, but in this latter instance the stress is initial to the word. Regardless of the position of such stress markers, they can be helpful in distinguishing word units. There are also features of intonational breaks,

types of permitted consonant and vowel clusters, patterns of vocalic harmony, as for example in the Ural-Altaic languages. The details of these matters are altogether too complicated to consider at this point.

Dr. McDougall: I'll give you credit for knowing at least something of how to go about analyzing the problem. But I would frankly like to see some of those complicated paradigmatic forms that you imply exist in Eskimo. Write us out some illustrative forms.

Dr. Thompson: Gladly. These are of course not in any sense comprehensive, but they may give you some idea of the structural peculiarities of the language.

niġizuŋa	'I eat'
niġiŋazuŋa	'I ate'
niġiñiaḳtuŋa	'I will eat'
niġizutin	'you (sg.) eat'
niġizutik	'you two eat'
niġizuḳ	'he eats'
niġizuguk	'we two eat'
niġizugut	'we (pl.) eat'
niġizutik	'you two eat'
niġizusi	'you (pl.) eat.'
niġizuk	'they two eat'
niġizut	'they (pl.) eat'
niġianikama	'after I ate'
niġianikkuma	'after I eat'
niġiŋaiññaġma	'before I eat'
niġiguma	'if I eat'
niġizukṣaugaluaḳtuŋa	'I ought to eat'
niġisuktuŋa	'I want to eat'
niġiḳayaḳtuŋa	'I almost ate'
niġisigikpiñ	'I eat for you'
niġisiyumiñaġikpiñ	'I can eat for you'
niġipkaġumiñaġikpiñ	'I can make you eat'
niġiiñ	'eat (sg.)!'
niġisiči	'eat (pl.)!'
niġisuḳtuŋa	'I know how to eat!
niġiŋaiġñiaḳtuŋa	'I will stop eating'
niġiŋaiġñiaŋitčuŋa	'I will not stop eating'
niġiñiaġugnaḳtuŋa	'I may eat'
niġigaluamiiġuuzuŋa	'I often eat'
niġipkaḳtuŋa	'I feed myself'
niġipkaŋazuŋa	'I fed myself'
niġipkaġikpiñ	'I feed you (sg.)'
niġipkaŋaġikpiñ	'I fed you (sg.)'
niġipkaġiga	'I feed him'

niġipkaġiptik	'I feed you two'
niġipkaġipsi	'I feed you (pl.)'
niġipkaġikka	'I feed the two of them'
niġipkaġitka	'I feed them (pl.)'
niġipkaġiŋma	'you (sg.) feed me'
niġipkaġiñ	'you (sg.) feed him'
niġipkaġaaŋa	'he feeds me'
niġipkaġaatin	'he feeds you (sg.)'
niġipkaġaatigut	'he feeds us (pl.)'
niġipkaġiptigiñ	'the two of us feed you (sg.)'
niġipkaġikpuk	'the two of us feed him'
niġipkaġikput	'we (pl.) feed him'
niġipkaġiptiŋŋa	'the two of you feed me'
niġipkaġiktik	'the two of you feed him'
niġipkaġaaŋŋa	'they feed me'
niġipkaġaatin	'they feed you (sg.)'

Dr. Zilch: On the basis of that type of system one could continue for hours to recite a paradigm of the same verb.

Dr. Thompson: It isn't quite that difficult, but there are certainly several thousand possible forms if one includes all the aspects of the action and the relationships of subject and object expressions. What we have here is only a small beginning.

Dr. McDougall: I for one am willing to concede that you need some sort of methodology to handle this type of language, and I am sure that the conventional Greek and Latin way of describing the paradigms would be rather cumbersome, to say the least.

Dr. Zilch: It is all very well to talk about a methodology for describing this type of a system. But the very mechanics of handling the details is beyond me. Granted that you have ways of describing the layers of formation and the sets of "immediate constituents," as you call them. But first of all you must sort this data. How can you keep track of some of these details while you are engaged in analyzing the texts and the paradigms which you obtain?

Dr. Thompson: The problem which you mention is a real one. To solve it, we employ rather extensive systems of filing data on separate slips of paper and under appropriate headings.

Dr. McDougall: But you cannot make out headings before you know something about the language.

Dr. Thompson: That is true. Nevertheless, as we progress in the analysis of the language and begin to discover facts about the structure, we can adapt our filing system to match the linguistic patterns. For example, in treating these Eskimo forms, we would file each word under all the morphemes which we could isolate, and these morphemes would be filed on the basis of their relationships to the stem or to the stem and the interposed layers of morphemes. Finally, when one begins to describe the distribution of these morphemes that one has filed away, all, or at least the representative, occurrences of each constituent part will be available for analysis and description.

Dr. McDougall: To write out and file such data is a gigantic task.

Dr. Thompson: It is precisely just that. In fact, I know of nothing quite so extensive in multitudinous detail than the description of a language.

Dr. McDougall: I know that it is too much to ask you for a detailed explanation of procedure. Perhaps I have some faint idea of how you go about your work. What I would like to know is how you would analyze a text in a native language. We'll take for granted that you know something about the phonemics and the word structure. What, however, do you do with a sentence in some story.

Dr. Thompson: That is not so difficult. But one must not think that the phonemics and morphology are done first, and then comes the syntax. Rather, we work on everything at once. Let us assume, however, that we get such a sentence as this one which comes from a Comanche story: 'surikʉ̈se? pi-'puiha 'cahto?i?etʉ̈, 'hu·-"ma-"tu ?u-wih'hi?e·yU, which may be translated as 'He took his own eye out with his hand and was throwing it up in the tree.' Literally the sentence may be translated as 'he his-own-eye with-his-hand-takes-out tree-on-in it-was-throwing.'

Dr. Zilch: Rather sadistic little self-torturer, to say the least! What is the context?

Dr. Thompson: Well, the story is a very popular Comanche tale about a raccoon who completely deceives a coyote by this magic trick of taking out his eye and throwing it up into a willow tree. By the use of special words he is able to make it return. The coyote's self-confidence and heedlessness to the raccoon's instructions is his own undoing.

Dr. Zilch: It is at least good to know that the traditional culprit got his deserts on this occasion. But as for the text, please explain to us first, how you would go about analyzing such an expression and then what the various parts of it mean and what their function is.

Dr. Thompson: In analyzing a text such as this we draw on three sources of data. First, what we already know about the language, and considering that we have carried out at least some of the previous steps in procedure, we should be able to recognize some of the units. The second method which we have is to attempt an identification of constituent elements in other places in the same or other texts. This means either an elaborate filing system or acute observation and memory. The third method is to elicite from the informant certain related forms so that the constituent parts may be more easily recognized.

Dr. McDougall: I notice one form, or at least a related form of something you have already mentioned this evening. The form here is 'surɨ̈kɨ̈se? meaning 'he' and the form which you gave before was 'surɨ̈·kɨ̈se? to which you attached the meaning of 'they.' These forms must be related in some way.

Dr. Thompson: They are, and these are the very types of formal resemblances that we attempt to discover. If we examine very much text, or refer to previously gathered data, we would inevitably also find 'surɨ̈, also meaning 'he.'

Dr. McDougall: Then what does the element -kɨ̈se? mean? Would you say that surɨ̈ and surɨ̈kɨ̈se? are identical?

Dr. Thompson: Just a moment. You have already asked two questions. In answer to the first, I will have to confess that the distinction in meaning is rather elusive, particularly when the informant insists that the two forms mean the same. Furthermore, an examination of any quantity of text will reveal this form -kɨ̈se? added to a number of different types of words and expressions. It seems to be a sort of deictic particle, that emphasizes the immediately preceding word or expression.

Dr. Zilch: But why do you not consider it a word by itself?

Dr. Thompson: For one thing, it is never uttered by itself, and it may never occur initially in a phrase. In fact, no Comanche word may begin with a voiceless vowel. The fact that it always occurs with a voiceless vowel is the best evidence that it must be considered phonologically as a part of the preceding word.

Dr. McDougall: Then you would call it a suffix?

Dr. Thompson: No. Rather, it functions like an enclitic. It must "lean on" the preceding word, but in its morphological structure it is not a part of the preceding word.

Dr. McDougall: That is not unlike the Greek enclitics, which were dependent upon the preceding words for their accentual character.

Dr. Thompson: That is precisely similar to this type of problem.

Dr. Zilch: There is no trouble in this instance as to the stem 'surʉ. We can leave that as settled, may we not?

Dr. Thompson: No, not quite. The structure is rather more complex, though I must admit that one must examine quite a little data before becoming aware of the differentiations. Further questioning of the informant or examination of texts will reveal that 'surʉ actually means 'he' or 'that one out of sight.' For a third person singular object near and within sight one must employ 'sitʉ, while a person further away but still within sight is designated by the form 'sorʉ. Actually, the stem of this third person pronoun is -tʉ alternating with -rʉ, in which t follows a high front vowel i and r occurs before other vowels, as is the regularly observed situation in alternations between these related phonemes t and r. The initial elements si-, so-, and su- occur in a number of other combinations. One of these series is 'sikʉse? 'here it is,' 'sokʉse? 'there (in sight) it is,' and 'sukʉse? 'there (out of sight) it is.'

Dr. Zilch: And there is apparently that same -kʉse?

Dr. Thompson: You are right.

Dr. McDougall: I am amazed at the subtle distinctions in this pronominal system.

Dr. Thompson: You should not be. All languages have their subtle distinctions, and aboriginal languages are in no sense deficient.

The next word pʉ-'puiha 'his own eye' illustrates another rather neat distinction in Comanche. The proclitic pʉ- denotes that the eye belongs to the same person as the subject of the sentence. If this were someone else's eye, then the preposed element would have been mə-. The suffix -ha marks the object of the verb.

Dr. McDougall: What amazes me is how much meaning these languages pack into a single word.

Dr. Thompson: Then perhaps the next word will impress you even more. The initial element cah- is a compounding stem which indicates that the action is done with the fingers or hand. Had the task been accomplished with a stick, the stem 'wɨ- would have been employed. Similarly, an action employing the use of the foot can be indicated by the preposed stem 'tah-. The verb stem to?i means 'to come out.' The suffix -?e indicates repeated or habitual action, and -tɨ signifies that the action is contemporaneous with the principal action of the sentence.

Dr. McDougall: That is really remarkable.

Dr. Thompson: Not at all; just typical of many languages.

Dr. McDougall: Well, continue!

Dr. Thompson: Certainly. The next word 'hu·-"ma-"tu consists of an accented stem hu·- meaning 'tree,' followed by two enclitics bearing secondary accents. In rapid speech these secondary accents may be lost. The first enclitic -"ma- means 'on' in most contexts, but here is better translated as 'up in.' The second enclitic -"tu may be translated as 'in' or 'into.'

In the final word the initial ?u- is a proclitic substituting for the object, namely, the 'eye.' The stem is wih'hi-. The suffix ?e· means repeated or habitual action, as in the above instance, but in this case appears in an alternative long form. The final suffix -yU denotes past continuative action.

Dr. McDougall: In substance this is descriptive linguistics, breaking these complex items down and describing their function.

Dr. Thompson: Partially, but not completely. In the first place, our description of their function must be given in terms of the over-all structure of the language, not in terms of such individual items. Furthermore, I have not even mentioned the syntactic problems. Under the syntax we discuss such features as the various types of subject expressions, the predicate expressions, the kinds and arrangements of attributives, and the intonational patterns which group various sets of constituents. The problems are much too complicated to discuss in this informal manner. You should read some grammars covering the syntax of such languages.

Dr. McDougall: I realize that my next question has nothing to do with formal linguistics as such, but I have always wondered whether there are not some very important correlations between these folk stories and the moral and spiritual attitudes of the people. You should be able to learn an immense amount concerning a people's outlook on life by a careful study of such legends.

Dr. Thompson: You are most assuredly right. A story sometimes tells more in a few minutes than an objective treatise on sociology can ever explain. For example, there is a famous story in Yucatan about two women, and on the basis of this story one can learn a great deal about the Mayan's fundamental attitudes toward life. The story is probably of European origin (I frankly do not know), but the fact that in one form or another it is known throughout all of Yucatan and is one of the most frequently retold folk tales is somewhat indicative of the Mayan Indians' acceptance of the moral teaching implied in the story.

Dr. Zilch: Briefly, what is the story?

Dr. Thompson: Excuse me for discussing the story without telling you something about it. In general, the plot runs something like this:

> Once there were two young women. The first of these had the title of "Good Woman" because she was morally respectable and self-righteous. She lived without loving anyone or doing either good or evil to anyone, but people expected that when she died her soul would go immediately to heaven.
>
> The other young woman was called "Very Bad Woman," because she lived a dissolute life. But she loved people, and she did good to all needy creatures, both men and animals. Contrary to expectation, when she died her corpse gave forth a fragrant odor, and she was honored by throngs of those whom she had loved and benefitted.
>
> The "Good Woman" expected an even more remarkable tribute at death, but her body emitted a foul stench. And in the next world she was forever doomed to enticing men and then deceiving them by being changed into a thorny cactus whenever they attempted to embrace her.

Dr. McDougall: This is obviously quite another interpretation of Victorian morality.

Dr. Zilch: But doesn't this story strike you as very fundamental to many Latin American moral standards?

Dr. Thompson: Indeed it is; even as all folk stories are "windows open upon the soul of a people,"—if one may be permitted to speak in such figurative language.

Dr. McDougall: You mentioned earlier this evening that you might be able to illustrate some of your procedures from a Bantu language, and I realize that as yet you haven't said much about syntax. What about trying to explain at least something about the analysis of combinations of words by using some African language? Do these languages in Africa have as much intricacy as those which you have cited from this hemisphere?

Dr. Thompson: I shall be glad to do what I can in explaining a little about the syntax of some of these languages, but it is quite impossible to do very much, for the patterns are entirely too complex. It is, however, difficult to talk about African languages as such, for there are great differences in Africa. There are not so many families of languages in Africa as in this hemisphere, and accordingly, not the extreme differentiations; but scholars must recognize at least four, namely, the Bushman-Hottentot, the Bantu, the Sudanic, and the Hamitic-Semitic. The Bantu languages represent a rather closely knit group, but the so-called Sudanic languages are quite diverse and it may ultimately prove erroneous to group them all under one family. We may, however, obtain a glance at a rather typical Bantu language if we analyze a simple Kizinza sentence coming from a story of the "Rabbit and the Crocodile."

Dr. Zilch: Before you go ahead, however, tell me if these African stories are anything like the Br'er Rabbit stories in this country. Such tales are a specialty with Negroes in the South. Perhaps there is a relationship.

Dr. Thompson: There certainly is. Practically all the Br'er Rabbit stories told in the South may be traced directly back to Africa, whence they were brought by slaves.

Dr. Zilch: To think that something so apparently indigenous to America should have come from Africa! Incredible, isn't it?

Dr. Thompson: Perhaps not so incredible on further consideration. But now to get back to that Kizinza sentence I was about to introduce: ninkúta áhamugo·ngó gwa·ngé hazima. This may be translated as 'I will put you on my back which

is a good place.'

Dr. McDougall: Again you are putting a great deal of meaning into four simple words.

Dr. Thompson: Perhaps the four words are not so simple as they appear. In fact, in order to understand the syntax of this interesting sentence, we should first analyze briefly the function of each of the morphemes in the four words. Then we can understand more readily the rather intricate manner in which the constituent parts of this expression are integrated. In the first word, ni- is a prefix of immediate future time; -n- indicates a first person singular subject of the verb; -kú- designates a second person singular object; and -ta is the stem meaning 'to put.'

In the second word the prefix á- is an element occurring as a-, e-, or o-, depending upon the quality of the following vowel, and helps to define the following expression as a substantive; -ha- is a locative prefix; -mu- is a class prefix occurring with the noun stem -go·ngó 'black' (all nouns are divided into classes and have a singular and a plural class prefix).

In the third word the initial element gw- shows agreement of the following possessive stem -a·nge with the preceding noun mugo·ngó. Note that this possessive word element by the use of a concordant prefix gw- shows that it is in agreement with the noun mugo·ngó, rather than with hamugo·ngó, as is the case with the final word, which consists of a prefix ha-, that shows agreement with hamugo·ngó, and -zima, an adjective stem meaning 'good.'

Dr. Zilch: Apparently, 'my' modifies 'back,' but 'good' modifies the 'place on the back.' Is that what you are trying to say?

Dr. Thompson: Exactly.

Dr. Zilch: If that is the case, I can see that the immediate constituents that you talk about do not coincide with the word boundaries.

Dr. Thompson: They do not.

Dr. McDougall: But that is incredible.

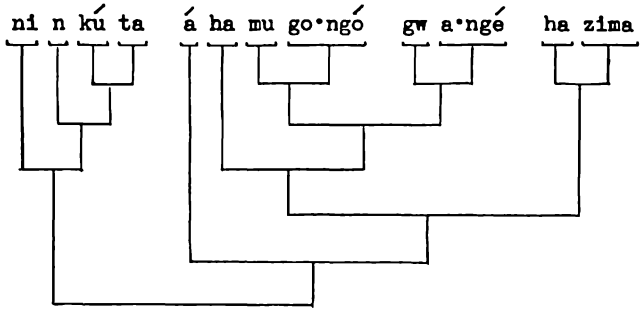
Dr. Thompson: Not at all. Compare the English expression the king of England's hat. The genitive suffix -s actual goes

with the entire expression the king of England. Immediate constituents frequently break within words.

Dr. McDougall: I had never thought of analyzing that English construction in such a manner. Why, it works perfectly!

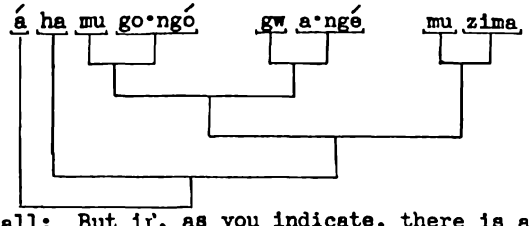
Let's assume that you are right about this Kizinza expression; precisely how would you divide up the parts? How would you diagram the relationships?

Dr. Thompson: The sentence could be analyzed something like this:



Dr. McDougall: But can you be sure that the word hazima 'good' actually modifies the 'place of the back' rather than the 'back'? Perhaps this is ambiguous, and the formal distinctions which you insist on are not completely justified.

Dr. Thompson: On the contrary, if the meaning were 'on my good back,' the Kizinza expression would be áhamugo•ngó gwa•ngé muzima. The mu- prefix on the last word would indicate that the adjective 'good' modifies mugo•ngó. A diagrammatic analysis of this latter expression could be drawn as follows:



Dr. McDougall: But if, as you indicate, there is as much overlapping between your so-called morphology and syntax, then is there much point in making such a division in you analysis?

Dr. Thompson: Actually in some languages the distinction between

these two levels is not so important, in other languages it seems to be a significant type of distinction. In still other cases, perhaps one can get along entirely without the morphology-syntax dichotomy. This situation reveals a very basic principle underlying all descriptive linguistic research, namely, that we do not attempt to postulate the forms into which a language must fit, nor do we legislate in advance the formal system which we must employ in describing a language. Rather, we must discover the facts about a language, and then employ whatever systematic organization is revealed by the language itself.

Dr. McDougall: I want to thank you for what you've brought out this evening in our discussion. I still cannot go all the way with some of your ideas, but I shall be interested to watch what you do.

Interlude 5

THE CLASS DISCUSSES PHONETIC CHANGE IN LANGUAGES

Bill Downing: There were some points in our outside reading which brought up problems not discussed in class.

Dr. Thompson: What were these? There is always time to discuss background materials.

Bill Downing: For one thing, the origin of languages. How do you interpret the various theories?

Dr. Thompson: It is difficult to say. Such theories at best only explain a very limited amount of vocabulary. The "bow-wow" theory rests on the assumption that people tried to imitate noises and then associated such noises with the objects making them. This might explain some onomatopoetic words but would not do for very many others. The "ding-dong" theory is closely related to this. This theory is supposed to explain a person's natural sound-producing responses. The "pooh-pooh" theory attempts to explain some words as developed from violent outcries and exclamations.

Jack Sheridan: But do these theories actually explain the origin of languages?

Dr. Thompson: Such theories probably explain the origin of some words in certain languages, but the range of vocabulary explained by such theories is quite limited.

Ann Ferrell: Are there in the world today primitive peoples who use only such types of words for their vocabulary?

Dr. Thompson: Indeed not. Such theories can explain, or should attempt to explain, only a very small percentage of the vocabulary of any language.

Richard North: But what about the "ta-ra-ra-boom-dee-ay" theory which Jespersen has advocated?

Dr. Thompson: There is more semblance of possibility in such a theory than in the others which we mentioned, but the idea that early man went about babbling like a child out of sheer delight to be alive and that he abstracted from such babbling

various sets of sounds which became associated with particular objects and actions is a rather extended reconstruction. The plain truth is that there are no primitive peoples today whose languages anywhere near approach such conditions. Such theories are lacking in historical corroboration.

Jack Sheridan: I read recently that someone had attempted to show that all languages in the world have come from one of the languages of the southern Sahara. Is there any slight basis for such theories? And where do such ideas come from anyway?

Dr. Thompson: Largely from not knowing any linguistics. I remember a book which purported to prove that Aztec was an Indo-European language. The author had done what most folks do who attempt to prove some fanciful hypothesis. He paid attention only to those facts which tended to prove his hypothesis, and completely closed his eyes to all other facts. By this means, one can "prove" almost anything, but of course the "proof" is unadulterated falsehood.

Richard North: An article which I read not so long ago in an anthropological journal attempted to prove that the Indians of South America came from Africa. The evidence for this was a list of several hundred words from various African languages which were similar to words in various Indian languages of South America.

Dr. Thompson: Yes, I remember that article. The fallacy of the entire argument lies in the fact that the author, though he surely should have known better, took words from any language of Africa (and there are hundreds of mutually unintelligible languages in Africa, comprising several distinct families), and then he related such words to various languages in South America, choosing the corresponding words in the same indiscriminate way from any language. He paid no attention whatsoever to the historical changes which must have taken place in these languages since the time when such natives supposedly came from Africa.

Of course, this article on African and South American languages was not attempting to find the origin of languages but rather comparing languages, yet in a most unscientific way. No subject, however, seems to intrigue people more than an attempt to find the origin of languages. A recent review on the subject of glottogonic studies, a technical term for the "origin of language," ended the comment on a particularly fantastic attempt at language reconstruction by stating that such efforts reminded the author of a four-letter English

word which began with the letter b and ended with the letter k.

Jack Sheridan: Is it at all possible to reconstruct primitive language types, or, perhaps I had better say, early pre-historic types, from the languages which aboriginals speak today?

Dr. Thompson: It is completely impossible. Even the most primitive peoples have a language structure which is highly organized and in many features as complicated as anything which civilized peoples possess.

Bill Downing: But if, as some contend on good evidence, language did arise in one place, why is it that there are so many families of languages today? Our textbook says that the number of families of languages in the eastern hemisphere totals from fourteen to thirty, and estimates of such language families in this hemisphere run to at least fifty. Why are there so many families of languages which cannot be related?

Dr. Thompson: That's a good question. In saying that there are some seventy-five to a hundred different families of languages in the world, we are not saying that all these families are original. We are only saying that when we have related all the languages which we can, there are still groups of languages which we cannot inter-relate. It is not difficult to see the reasons for this. For example, if we compare two languages that are somewhat different, let us say, the Tarahumara and the Aztec of Mexico, which belong to the Mexican branch of the Uto-Aztecan family of languages, we find only a limited number of words in common. Then let us say that we compare Tubatulabal and Paiute, which belong to the Shoshonean branch of the same Uto-Aztecan family. Here too there are a limited number of words in common. Then if we relate the Mexican and Shoshonean branches of the Uto-Aztecan family, we have a still more limited number of words in which we can show sets of phonetic correspondences. The total number of such words would be only a few hundred at best, compared with the several thousand words in the vocabulary of each of the modern languages of this family. When we try to relate the Uto-Aztecan family with some other family, we have only a comparatively few words with which to point out phonetic correspondences. As we push back the comparison of languages by relating them historically, we gradually run out of relatable material. At the present time, we are assured of the relationship between the Indo-European languages and Hittite so that we construct a Hittite-Indo-European super-family. But this relationship is demonstrated by a limited number of words and terms. To relate this Hittite-Indo-European

language family with some other family would be extremely complicated. Does that explain your question?

Bill Downing: It does. But why do you speak of phonetic and sound correspondences in languages, rather than simply words which are alike.

Dr. Thompson: For the reason that it is not enough to point out that languages have many words in common. For example, Rumanian is basically a Romance language, by which we mean that it was originally Latin, but actually the vocabulary of Rumanian has a high percentage of Slavic. Being surrounded largely by Slavic-speaking peoples, it is not strange that Rumanian should have borrowed a great percentage of such foreign words. If we made a superficial analysis of the vocabulary correspondences, we would be inclined to conclude that Rumanian is a Slavic language. But there are parts of the vocabulary which are not Slavic but show direct correspondence to Latin. These Latin forms can be shown historically to be older and to represent some of the more basic parts of the grammatical structure. It is not volume of correspondence that is desirable, but the type of correspondence.

Ann Ferrell: I have seen some mention in the assigned reading about the importance of Sanskrit as being the mother language of the other Indo-European languages.

Dr. Thompson: That idea was propagated at a time when the study of Sanskrit was very much in vogue as a background to branches of the Indo-European languages. There are eight principal branches: (1) Indo-Iranian, which includes (a) Sanskrit and its modern derivatives in northern and western India, (b) Persian and related Iranian languages, (2) Armenian, (3) Albanian, (4) Greek, (5) Romance languages, derived from Latin, and including Portuguese, Spanish, French, Rhaetian, Italian, and Rumanian, (6) Celtic, which includes the modern Breton, Welsh, and Irish, (7) Germanic, including the Scandinavian languages, German, Dutch, and English, and (8) Balto-Slavic, including the Baltic languages, Lithuanian and Lettish, and the Slavic languages, divided into West Slavic and Polish, Czech, and Slovak; East Slavic comprising Russian; and South Slavic comprising Serbo-Croatian, Slovene, and Bulgarian. Another language, in addition to Hittite, which we mentioned before, is also related to the Indo-European family of languages, namely Tocharian, spoken in Central Asia and known to us through manuscript fragments, written by Nestorian Christians.

Ann Ferrell: But what explains the emphasis upon Sanskrit?

Dr. Thompson: Sanskrit is an important language in the Indo-European family from the standpoint of linguistics. The Sanskrit proper was spoken about the Fourth Century B. C. by the upper class somewhere in northwestern India, but the Vedic hymns and some texts go back to about 1200 B. C. Such historical evidence concerning one branch of the Indo-European family is important, but we must not think that the other related languages were derived from the Sanskrit. The eight branches of the Indo-European are more or less sister languages.

Carl Williams: But what type of reconstructions can we make of the pre-history of languages? Consider what Gray says in his book, Fundamentals of Language, page 177, namely, that the personal pronoun is the most primitive of all parts of speech and that the one for the first person was the earliest. Where does Gray get such evidence?

Dr. Thompson: Actually, the evidence for such a statement is not to be found. We have no way of proving it, and no way of disproving it.

Carl Williams: But why should such a statement be made?

Dr. Thompson: I do not know; except that when people begin to philosophize about something, it is amazing how far afield they go from actual historical facts. Such unfounded statements should be a warning to us against attempting to reconstruct situations for which we have no evidence.

Richard North: However, by comparing words which a language family may have in common, it should be possible to reconstruct to some extent the type of culture which such people had. If, for example, all the members of a language family have the same words for 'bow' and 'arrow,' it should not be difficult to conclude that the ancestors of these peoples, who at one time spoke a common language, likewise had bows and arrows.

Dr. Thompson: That is true with one exception. Perhaps the words for 'bow' and 'arrow' were borrowed from another tribe, after the original group had already separated into various mutually unintelligible language groups. That is exactly what happened with the word hemp Old English ['hɛnep], and Greek ['kannabis]. But in the main, your statement about common words is true. It is by this process that we can tell something about primitive Indo-European society. The occurrence of a similar stem for 'cow' indicates that this animal existed in primitive Indo-European culture. Likewise with

the terms for a 'wheel.' The word for 'snow' appears so widespread that it is possible to exclude India as the likely home of the original Indo-Europeans. You can find several interesting treatments of this subject, by such men as Schrader, Meillet, Hirt, Feist, and Delbruch.

There are some practical applications of these same methods of observation when one works with aboriginal languages today. For example, if one finds a Chippewyan employing the same word for 'dog' and 'horse' (which is actually the case), the investigator should not be surprised. The Chippewyan Indians employed dogs for carrying and pulling loads. When horses were introduced into the area and were used for precisely the same type of work, it is not strange that the same word would be employed to designate them. Similarly, a Kiowa Indian, who uses the same word for ground or floor, is simply following a usage which reflects the tepee. When a Quechua Indian of Bolivia speaks of 'tying up the sun' as a designation for a year, he is employing a term which had a literal meaning in times when knotted strings were used in counting. There are frequently some fascinating bits of historical evidence hidden in word usages, for example, the occurrence of many Portuguese words borrowed into the languages of West Africa, giving evidence of the early, vigorous trading enterprises carried on by Portuguese explorers. The discovery of such historically pertinent data in the changing process of language development is a study in itself.

Ann Ferrell: What types of historical changes occur in languages?

Dr. Thompson: In brief, all types. Everything about languages is subject to change. Some items may change more than others, and languages differ markedly in what types of changes occur. The Greek philosopher Heraclitus who said panta hrei 'all things flow' expressed a truth about language, for all things about languages are constantly in the process of change. But specifically in answer to your question, Ann, there are three principal types of change. They involve sounds, grammar, and lexicon. The changes in grammar and lexicon may be grouped together in contrast to changes in sounds, for these latter changes do not usually involve meaning, but grammatical and lexical changes are connected with meaningful units.

Bill Downing: Does the change from Old English [ha•m] to modern home ['howm] illustrate a meaningless change in the sounds of the language?

Dr. Thompson: Yes, in the sense that the meaning of the noun is

not affected by the long [a·] changing to [ow]. The short [a], on the other hand, shifted front in the word hamlet [hæmlet].

Richard North: But what about changes in the grammatical structure?

Dr. Thompson: One type of change in grammatical structure may be illustrated by the change from a comparatively free word order in Old English as regards subject, verb, and object elements to a more rigid order of these constituents in Modern English. Another type of change is the development of productive affixes. For example, from words such as lotto and tango (as a name for a game played with numbered cards) a productive suffix -o has been developed, so that now we encounter keeno, skreeno, and bingo. This is all a part of the analogical extension of a language.

Jack Sheridan: Do such changes take place more rapidly in written languages or in non-written ones?

Dr. Thompson: It is difficult to say, for we do not possess very adequate information. In instances where we can check, it would appear that written languages change more rapidly. For example, there are certain early manuscripts written by Spanish priests which contain some Maya expressions and a certain amount of information about the Maya language as it was spoken in approximately the middle of the sixteenth century. A comparison between these sixteenth century Maya forms and present day ones reveals considerably less change than has occurred in English during the same period; but the changes in Spanish are not proportionately as great as those in English, though apparently they are greater than those in Maya

Jack Sheridan: But the very writing of a language should tend to stabilize the forms.

Dr. Thompson: This is to an extent true, but languages appear to change almost directly in proportion to density of communication and intensity of use. Since the writing of a language normally accompanies accelerated language usage, any stabilizing effect of fixed orthography is to a great extent lost.

Ann Ferrell: When sounds change in a language, do they shift all at once, or is the process so slow that people are not aware of the changes?

Dr. Thompson: We may say that phonological changes in words take place in two different ways. The first is an imperceptible shifting of the manner of pronunciation. The other involves the fluctuation between two different pronunciations of a form. Consider the word night, which was formerly pronounced as ['nixt] with a short [i] and a voiceless velar continuant preceding the [t].

Ann Ferrell: How did the gh get into the word?

Dr. Thompson: The digraph gh was employed by the French scholars who came to England after the Norman conquest. They introduced it in such words as daughter, through, and neighbor. (Compare the German Tochter, durch, and Nachbar.) Gradually, however, this velar continuant was lost in English, but as it was lost, the vowel [i] in ['nixt] was lengthened. Accordingly, ['nixt] became ['ni·t], as almost imperceptibly the [x] was lost. However, this [i·] has in turn been changed. Gradually the long [i·] has become diphthongized to [ay]. This occurred in such words as wine, fine, kite, and write. This change took place so gradually that those whose speech underwent such a change were probably not conscious of the modification.

Bill Downing: But all the speakers of English didn't make these very same changes at the same time, did they?

Dr. Thompson: No. Each gradation of change probably started from one general center and then spread out like a wave. Let us assume that a slight weakening of the [x] sound of night ['nixt] takes place. If this change is made by socially prominent people in a center of communication, this change will be made by other speakers. Their adaptation to the new change will often be completely unconscious, for people tend to speak like those with whom they associate. In fact, we turn this axiom around and judge people's associations and background by their manner of speech. The use of a certain form may produce a change in other speakers, but if this form is employed by those of social and economic prominence, then it is all the more likely to spread, for people will copy this form of speech and, for that matter, any manner or habit which will be considered as bringing prestige. Those speakers with whom a change begins must be in communication with others, and the more they act as a center of speech influence the more rapidly is their variant pronunciation likely to be accepted by others.

Bill Downing: What stops such changes from spreading through the entire speech community?

Dr. Thompson: Political, economic, and social boundaries are lines of weakness in communication. The limit, however, to which any particular linguistic feature spreads, we may conveniently call an isoglossal line. Within this line all the speakers will have the same type of pronunciation as far as this one feature is concerned.

Bill Downing: But do not some features spread further than others?

Dr. Thompson: They do. In fact a dialect atlas, which is a map of the distribution of various features of language, rarely has two identical isoglosses. However, there are often several features which tend to have parallel limits, and these several isoglosses running together may be called isoglossal bundles. If there are enough of these differences separating two regions, we speak of these two regions as constituting distinct dialects.

Ann Ferrell: But you mentioned that there was a second way in which phonological changes take place. What is it?

Dr. Thompson: Thank you for reminding me. We had almost wandered away from the point. Let us go back to the illustration of night. Suppose that the wave of usage for a shift from ['nixt] to ['ni·t] had reached from region A through B and C by imperceptible degrees of change, but had not reached area D. The dialect areas A, B, and C would have ['ni·t], while D retained ['nixt]. Then let us presume that the area represented by dialects A, B, and C became politically and economically dominant, and it was valuable for speakers of D to conform to the dialect of A, B, and C. Speakers in D would not likely go through the process of omitting the [x] by imperceptible degrees, but would choose the form ['ni·t] in preference to ['nixt] because of the social and economic prestige connected with the former. For the various speakers there would probably be a great deal of fluctuation between the two forms. They would use one form in certain social situations and the other form in other situations. Gradually, however, the form ['nixt] would be completely dropped in favor of the form ['ni·t]. All of us are conscious of such alternate forms in our own speech. For myself, my choice of alternates in creek ['kriyk] and ['krik], roof ['ruwf] and ['ruf], hoof ['huwf] and ['huf] fluctuates depending on the social situation in which I am speaking.

Regardless of the change, however, whether it is imperceptible or involves a choice of alternate forms, this influence for change proceeds as a wave through a language community.

Jack Sheridan: Is there any way of estimating the amount of linguistic change that will take place in a given situation?

Dr. Thompson: I fear there is not. Perhaps, when we know much more about linguistic science, we may be able to make some general predictions for types of change, but they will be very general and only hypotheses. Consider English and Greek. English has changed so much within a thousand years, that when we study the Old English of King Alfred's time in the ninth century, we find it is practically a foreign language. On the other hand, though Greek has changed some, especially in the pronunciation of some of the vowels, ancient and modern Greek are sufficiently alike that if one knows modern Greek, with very little difficulty he can read the Greek New Testament, which represents the Greek of two thousand years ago. English has undergone much more change in a thousand years than Greek has in two thousand.

Ann Ferrell: Our grandparents can point out a good many contrasts between their speech and ours. From these we might be able to get some basis for judging such changes.

Dr. Thompson: That is true, but there is difficulty involved. First, older people's judgment of changes is based principally upon lexical matters, namely, those words they formerly used in contrast to those they now use. But for lexical analyses we can check with written materials. Secondly, people of the older generation do not remember all the changes that have occurred in their speech. Their impressions are only partial. The third objection, however, is the greatest. People are not conscious of the imperceptible changes which have taken place in their speech since they first learned English. Not only is there a difference between the various generations, but there is a great difference in usage between the time of adolescence and old age. All these problems must be considered. The only method by which we could obtain an adequate record of the rate of change would be through extensive recordings of many people's speech at definite intervals over a period of several generations.

Richard North: Does the use and adoption of a foreign language spread in the same way as words and forms within a single language?

Dr. Thompson: Your question is primarily an anthropological and historical one but it does have important linguistic considerations. The Romans forced the use of Latin, but failed to spread Latin to the East, because in the East they met with Koine Greek, which possessed a cultural and economic

importance even greater than Latin. Many of the Roman rulers in the East were forced to employ Greek in their official business.

Consider also the case of the Hungars and the Bulgars. These people were from the same Central Asian stock. The Hungars pushed into Europe and made the peoples whom they conquered adopt Hungarian, but the Bulgars, who conquered the region of Bulgaria learned the language of the Slavs whom they conquered. The picture of cultural dominance is entirely too complex for us to suggest anything but general principles.

Richard North: Have aboriginal peoples been able to force a wholly unwritten language on another native population?

Dr. Thompson: Indeed so. The Quechuas of South America extended the use of their language over many tribes of the Andean highlands.

Carl Williams: What actually is the difference between a language and a dialect? You have spoken of both, but I don't understand the difference.

Dr. Thompson: Your question is a good one. There is a great deal of confusion concerning the best way to define a dialect and a language, for questions of considerable importance are involved in determining how many differences must exist before one should speak of a different dialect or a different language. However, we may conveniently say that any speaker who is recognized by any speech community as speaking in a manner different from that of the particular speech community in question can be considered as a speaker of a different dialect.

Bill Downing: But what if the difference is the result of some physiological or psychological abnormality? Would such speech constitute a special dialect?

Dr. Thompson: Perhaps we should make some reservations in our statements to take care of personal idiosyncrasies, regardless of the origin or nature of them. We may say that a person with a speech abnormality belongs to a dialect of which he is the only speaker. However, it is best to omit from the discussion people with a 'private' dialect, though, of course, if they are the only remaining speakers of some other speech community, they may be considered as representing such a community. However, dialectical differences are usually not associated with individuals but with speech communities.

Students of dialect geography may become very expert in classifying differences. A rather popular radio program has had such a dialectician, who is able to tell the part of the country, and often the very city and part of the city in which a person was raised, by obtaining from the speaker the pronunciations of certain key words which determine within which isoglossal lines his dialect may be classified. We may say in general that variations in speech may be considered different dialects if the speakers of these dialects recognize a difference between the speech of the respective communities.

Bill Downing: That would mean that for many of the Indian tribes of Latin America, practically every village must be considered as having its own dialect, for the people of each village recognize the speech differences of their neighbors.

Dr. Thompson: You are right. This is precisely the problem.

Ann Ferrell: Do two dialects become two languages when they are no longer mutually intelligible?

Dr. Thompson: Not necessarily.

Bill Downing: Why not?

Dr. Thompson: As long as each dialect is understandable by the speakers of a contiguous dialect, it is best to speak of all of these dialects as belonging to the same language, even though speakers who are separated by three or four intermediate dialects may not be able to understand each other.

Bill Downing: When, however, do you consider that you are dealing with another language rather than another dialect?

Dr. Thompson: We may consider two speech communities as constituting two languages instead of two dialects when no two speakers are able to understand each other, ruling out, of course, those who speak each other's language as a foreign language.

Bill Downing: But one would have to recognize peoples' varying abilities to make themselves understood in a related language.

Dr. Thompson: That is true. It is best then to take the opinion of the majority of the people as to whether they can understand the people of another linguistic group. If they agree in stating that they cannot, then the two linguistic groups represent two different languages.

Bill Downing: Would this type of analysis change the more usual treatment of the language classification in Germany and Holland?

Dr. Thompson: That is right. From the Dutch of Holland to the High German of South Germany there are intermediate dialects which are mutually intelligible. That is to say, there is a chain of mutually intelligible dialects, and yet, the end links in the chain are not mutually intelligible. We can speak, therefore, of the Dutch-German language area, if we have in mind the local dialects. On the other hand, if we are speaking of the national languages, which are spoken conterminously with the political boundaries of the two countries, then we are dealing with two different languages. This Dutch-German language area produces an unusual situation in which speakers of local dialects that are mutually intelligible are in general also speakers of the national languages which are not mutually intelligible.

Note another type of problem in this connection. In southern Mexico there are four so-called languages, the Tzotzil, Tzeltal, Tojolabal, and Chol. From all evidence available, however, there appear to be certain intermediate dialects between these four Mayan "languages." The Tzotzil, Tzeltal, Tojolabal, and Chol are very closely related. However, they have been conventionally classified as different languages. On the other hand, the Zapotec language is composed of at least three, if not five, very distinct dialects, which have far greater differences than the four Mayan groups in question. There are, however, mutually intelligible dialects throughout the Zapotec area, just as there are in the Tzotzil-Tzeltal-Tojolabal-Chol area. According to the classification which we are suggesting, as the most workable classification for scientific analysis, the Tzotzil, the Tzeltal, the Tojolabal, and the Chol would be considered as one language, with four dialect centers which are mutually unintelligible, but with contiguous local dialects which are mutually intelligible. However, the differences between the dialect centers are not great. The Zapotec would likewise be considered as one language, comprising several mutually unintelligible dialects which, however, diffe- much more than the dialects of the Tzeltal-Tzotzil-Tojolabal-Chol language.

Bill Downing: What advantage would there be to such a different stating of the dialect problem?

Dr. Thompson: Only this: it keeps us from taking things for granted because of some accidental usage which has grown up. It gives us a type of yardstick of analysis by which to compare groups.

Carl Williams: I would appreciate it if you would return to the subject of historical forms and tell us how the linguists know that they are right in determining the phonetic value of certain symbols in ancient languages.

Dr. Thompson: I will be glad to explain. First, one often finds accidental lapses in spelling. The scribe didn't remember how a form was to be written, or he carelessly put in a spelling which represented his own pronunciation rather than the more standard orthography.

Carl Williams: You mean it would be like writing educashun with -shun instead of -tion.

Dr. Thompson: Exactly! Such deviations from the traditional spellings are almost always in the direction of more phonetic usage. For example, we find in an Old English manuscript fremme for the more usual fremman 'to make.' This spelling fremme reveals that the n was probably no longer pronounced and that the a had been changed in quality.

Ann Ferrell: Couldn't one use rime and alliteration in poetry for discovering the phonetic values of the letters?

Dr. Thompson: Yes. In fact, this is one of the most profitable means. But, of course, this must be done with caution, for rimes and alliterations are not always perfect. Another method employed to discover the phonetic value of a symbol is that of checking transcriptions of words from one language to another. For example, we know that Latin c was a voiceless palatal stop from the transcriptions of Latin Caesar into Greek as ['kaysar]. In Gothic it was similarly kaisar. In the Romance languages this initial [k] has been palatalized to a sibilant or affricative.

As still another method of detecting phonetic values of symbols, we may use inverse spellings to reveal the phonetic values of letters.

Ann Ferrell: How is that?

Dr. Thompson: The scribes wrote delight with a gh though it was borrowed from the French deleiter. Delight never had historically a [x] sound. This is evidence that when delight was written with a gh, even as night, light, and fight, the gh indicated only that the i was long.

Richard North: To what extent can we rely on such spellings as name, gnat, knee, daughter, island, and debt to give us the

proper historical forms of these words?

Dr. Thompson: In most instances traditional spellings are indicative of historical forms, but one cannot be sure. In the case of delight, a gh, which does not historically represent a velar continuant, has been introduced. A somewhat similar situation exists with regard to the last two words that you mentioned. The s in island was introduced because Latinists thought they had found a relationship between this word and Latin insula. Of course, there was no such relationship, but this aberrant spelling has been introduced. An analogous situation occurred with the word debt, which was borrowed from the French dette. The Latinists saw a relationship to the Latin debitus and introduced a b to make the word more "etymologically correct," as they thought. The same thing is true of doubt from the French doute, derived from the Latin dubitum. One curious spelling error occurs as the result of a faulty recognition of a letter. The ye in such signs as ye olde shoppe results from a mistaken interpretation of the letter ȝ as a y rather than [θ], as conventionally indicated in the digraph th.

Ann Ferrell: When did all this interest in the history of languages begin?

Dr. Thompson: I have mentioned several times that much of our descriptive methodology comes from the work of the Hindu grammarians who worked on Sanskrit. These were not, however, the only ancient peoples interested in linguistics.

Bill Downing: Isn't there something in Herodotus about an Egyptian king who tried to discover the oldest nation by determining the most "original" language? As I remember it, he had two infants isolated from everyone else. When they began to speak they used a word which proved to be the Phrygian expression for 'bread.' Therefore the Egyptian king concluded that the Phrygians were the oldest race of people.

Dr. Thompson: King Psammetichus' methods and conclusions were bad, but he wasn't much further off the track than some of the more modern devotees of glottogonic studies.

The Greeks speculated about languages just as they speculated about everything in the world. They seem to have loved discussions, and there is nothing which can lead to so much discussion, and often so much unprofitable discussion, as language. Plato in the Cratylus presents the basic problem of the difference between the analogists and the anomalists. The analogists contend that there is a natural relationship

between the form of the word and the object for which it is a symbol and that language is fundamentally regular and logical. The anomalists on the other hand contend that language contains many irregular and anomalous features.

Bill Downing: These are practically the same differences of opinion as exist among members of the faculty here at the university.

Dr. Thompson: Yes, the arguments seem never to die, for each generation has to face the same problems. The Greeks, however, did show great insight into their own language and made some remarkably penetrating analyses, laying the foundations for the Latin grammarians and developing much of the grammatical apparatus which we employ today. The Greek and Roman grammarians should not be blamed for the fact that their system is so ill-adapted to modern languages such as English. This is the fault of the grammarians and rhetoricians who have tried to apply to quite different languages a system which was designed for the classical languages. The one major fault of the classical grammarians was the restriction of their work to their own languages. If they had been equally curious about other types of languages, we might be much further along with linguistic research today.

Bill Downing: Were not the medieval scholars somewhat responsible for some of the present-day attitudes about languages?

Dr. Thompson: They were, but this was because they were dealing with an artificial matter in writing and studying Latin, which was a "dead" language. If a man made mistakes in writing or speaking Latin, it was the result of his carelessness or his laziness in not having "boned" enough on his classical forms. When people began to analyze the usage of living, spoken languages, they interpreted deviations from the accepted standard as carelessness or laziness, not realizing that people use those forms which they hear. However, since Latin, which was dead, had a fixed form, grammarians thought that English and other colloquial tongues should have a fixed form. Hence, they attempted to lay down rules in terms of the only grammatical system they knew, namely, Latin. This explains many of the unfortunate results in the study and teaching of grammar today.

Carl Williams: When did people become interested in foreign languages, other than Greek and Latin?

Dr. Thompson: About the end of the 18th century some people began to collect specimens of foreign languages, more or less

as the amateur philatelist today collects foreign stamps. Lists of words were made in about three hundred different languages. Some scholars were investigating the older forms of their own European languages from manuscripts that were found. What hampered their approach to the problem of the differences and similarities between the various languages of Europe was the prevalent conviction held by such scholars that the languages of Europe had arisen as the result of haphazard corruptions. What gave modern linguistic science its main impetus was the discovery of Sanskrit and the declaration by William Jones in 1786 that Sanskrit bore a resemblance to Greek and Latin. He also stated that Gothic, by which he meant the Germanic languages, and Celtic were probably of the same origin. This type of statement stimulated tremendous interest in linguistics. At a time when European thinking was becoming aware of its own identity as separate from the purely classical tradition, the discovery that Sanskrit and other related languages provided some clues to Europe's common prehistoric heritage constituted the main spring for intensive research in linguistics.

Carl Williams: You have said that the discovery of Sanskrit and the grammar of Panini was of tremendous importance for descriptive linguistics, but it seems that most of the early research was along historical and comparative lines.

Dr. Thompson: That is true. Men were far too much concerned about the possible implications of their reconstructions of ancient materials to engage in the humdrum and laborious tasks of describing the European languages in the same comprehensive way that Sanskrit had been described. Since, however, these linguists usually knew several European languages, they proceeded immediately to collect correspondences, often rather at random, but gradually they refined their methodology. At first, such correspondences between languages as English two, German zwei, and Greek ['duo]; and English door, German Tür, and Greek ['tʰu·ra] all appeared to be haphazard changes which were attributed to so-called "sporadic" changes or corruptions.

However, in 1818 Rask, and in the next year Grimm, showed that these changes took place according to very definite patterns of change, and that the differences were not sporadic but regular. As a result, the pattern of change was called "Grimm's Law." This was an unfortunate term, for there is no such thing as a law in linguistics; there are only congruent sets of observed data. By following regular principles of reconstruction, which were suggested by "Grimm's Law," progress was very rapid. Some men, however, went too far.

Schleicher, who died in 1868, even attempted to write a short fable in Indo-European. Scholars would not attempt to do that sort of thing today, for there are many problems of reconstruction which remain unanswered. The work which more or less summarizes the historical and comparative material of the nineteenth century is the Outline of the Comparative Grammar of the Indo-European Languages by Brugmann and Delbrück. The book which outlines the basic methodology of the nineteenth century linguists is Paul's Principles of Linguistic History. There is also a very interestingly written book on the linguistic developments of the nineteenth century which you should not miss. It is Linguistic Science in the Nineteenth Century by H. Pedersen. I know you will enjoy it.

Carl Williams: Did historical linguistics die with the end of the nineteenth century, and descriptive linguistics take its place?

Dr. Thompson: By no means. Historical linguistics is certainly not dead. However, there has been a need for descriptive linguistics to catch up. Several factors have been involved. First of all, scholars began to realize that they could not make adequate historical and comparative analyses of languages unless they had more adequate and comprehensive descriptive data. Then too, they found that some of the generalizations which they had been inclined to make on the basis of a study of Indo-European languages did not hold when applied to non-Indo-European languages. Finally, men became aware that there was some value in studying a language from the standpoint of its own functional entity. Their attention was then turned to the demonstration of the principles of a descriptive approach in Panini's grammar of Sanskrit. In 1910 Finck published a little volume describing concisely the principal characteristics of eight completely unrelated languages. He insisted upon a descriptive analysis. In other words, a description of a language entirely apart from any considerations of the history of the language or similar languages. De Saussure was a great exponent of what he called the "synchronic" approach to linguistics, separating it from the "diachronic" approach, which was historical and comparative. A collection of his lectures published in 1915 entitled Cours de linguistique générale is an important contribution to descriptive linguistic methodology.

Some of the most important contributions to descriptive linguistics have come from American scholars who became interested in the Indian languages of the Americas. Boaz gave great emphasis to linguistics from the standpoint of anthropology. Sapir did outstanding work refining linguistic

techniques, and his book Language is a "must" for any descriptive linguist. Bloomfield has, of course, made the most significant contributions to descriptive linguistics in the way of methodology.

Ann Ferrell: Would you mind illustrating some of the so-called laws of phonetic change, particularly with English examples, so I can understand them?

Dr. Thompson: Perhaps the so-called "Great Vowel Shift," in English would illustrate the point. There are several vowel changes which occur in the transition from Middle English to Modern English. We may enumerate them more or less in the order of the vowel quadrangle. First, there is a change from long [i·] to [ay]. This we note in such words as wine, fine, ride, and mile, all of which had long [i·] as the stem vowel. Another change which took place was the raising of [e·] as in ges [ge·s] 'geese' to modern [iy]. Some words which in Middle English underwent the same change as [ge·s] are heel, steel, queen, green, and keep. Just previous to this historical change, the Middle English [ɛ·] had been raised until it coincided with [e·]. Hence, Middle English [ɛ·] has changed to Modern [iy]. Words which illustrate this change are heal, cheese, clean, street, and leave. Middle English [e] has likewise changed to modern [iy] where this [e] occurred in an open syllable. First [e] was lengthened to [e·] and accordingly was raised to [iy]. Some words which underwent this change are steal, weave, speak, meat, and eat. (The second syllable of these words was lost historically.)

Carl Williams: But this type of change leads to many homophonous words. It's strange that people would have made the shift if it led to ambiguity.

Dr. Thompson: This is strange, but ambiguity seems to have very little to do with such situations. The process of phonetic change carries right on. As a result, we have such identical words as heel representing a Middle English [e·], and heal which had an [ɛ·] in Middle English. We have the verb meet representing Middle English [e·], the adjective meet representing Middle English [ɛ·], and the noun meat representing a Middle English [e].

Carl Williams: But what if the words had very opposite meanings? Wouldn't that produce a problem?

Dr. Thompson: It does. There are two such words, which were at one time different but became similar through phonetic change; namely, let meaning 'to permit' and let meaning 'hindrance,'

as in such expressions as without let or hindrance, a let ball (in tennis), or the passage in the Authorized Version of the Bible, "he who now letteth will let, until he be taken out of the way." (II Thessalonians 2:7.) The words let 'permit' and let 'prevent' were in common usage. However, situations would arise in which one might want to be very specific and avoid ambiguity. Accordingly such a word as prevent or stop would be employed instead of let, which might be ambiguous. Hence, let in the sense of 'prevent' fell into disuse and is only preserved in a few set expressions.

Richard North: I always thought that it was actually a net ball in tennis, not a let ball. I presumed that those who said a let ball didn't use the right word.

Dr. Thompson: This is an instance of phonetic analogy. Let and net sound very much alike. The word let is no longer used in the sense of 'hinder,' so it is natural to reinterpret this expression. Since the ball is 'let' by the net, or 'hindered' by the net, such a ready transfer can be made. It is a type of popular etymologizing which is very common. It is somewhat similar to what Americans do when they go to Mexico and cannot pronounce the name of the famous volcano Popocatepetl. They proceed to call it "papa-caterpillar," for this sequence of sounds has some meaning and Popocatepetl does not.

Ann Ferrell: But what about those vowel changes which you were explaining?

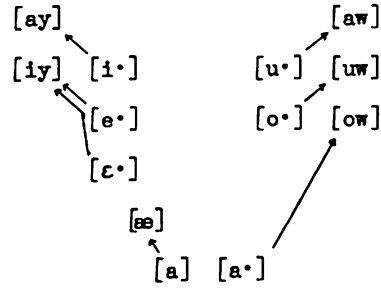
Dr. Thompson: Excuse me! It is so easy to get off into something else.

The vowel [a] in Old English has changed considerably in many words, and the pattern of change appears quite irregular at times. Long [a·] in stressed syllables regularly shifted to modern [ow]. Note such words as stone, home, whole, snow, and oath. Many short [a] forms shifted front to Modern English [æ] as in sat, hat, cat, pan, and ram. Old English long [o·] made several shifts dependent upon certain conditioning factors. One of the most prevalent changes, however, was to [uw] as in do, shoe, woo, tool, and doom.

Finally, long [u·] changed regularly to the diphthong [aw]. This is illustrated by mouse, louse, house, cow, out, and hound.

We can summarize the principal patterns of such changes by a diagram which indicates the most important modifications.

We must realize, however, that such a diagram is very much over-simplified. The details are quite complicated.



Bill Downing: But don't you even have some direct contradictions of this pattern, over and above the conditioning factors which you can describe?

Dr. Thompson: That is right. Whenever we make such an analysis we can expect to find a residue which will not fit our pattern. For example, the Old English [ha·l] meaning 'whole,' 'healthy,' or 'sound,' corresponds to both English whole and English hale. Whole is a modern phonetic continuation of the Old English [ha·l], but English hale does not exhibit the regular pattern of sound change. How is it that from one basic underlying word one should apparently derive two forms, whole and hale?

The difference in whole and hale is not, however, due to "sporadic" change any more than bacteria are produced by "spontaneous generation." The word hale is actually a borrowing from Scandinavians, who brought this word to England. Old Scandinavian (Old Norse) had [heyll] corresponding to Old English [ha·l]. The Old Scandinavian form of the word was introduced, paralleling the regular derivative whole.

Richard North: Do these same techniques for discovering patterns of correspondences and types of residues apply in all types of historical and comparative problems?

Dr. Thompson: They do. In the historical method we are working, theoretically speaking, with two or more sets of descriptive data. We attempt to find (1) all the patterns of correspondences, (2) the conditioning factors, and (3) the residues, which do not seem to agree with the regular sets. When we deal with different languages, there should be a set of descriptive data for each language.

Jack Sheridan: How do these patterns of correspondence apply to what you called "Grimm's Law"?

Dr. Thompson: Rask's and Grimm's observations are in themselves just such congruent patterns. There are three types of sound change which exhibit an interesting pattern between the English and other Indo-European languages.

1. Certain Indo-European languages have unvoiced stops where English exhibits unvoiced spirants.

   p - f Greek [pod-] : English foot; Greek [pa'te·r] : English father; Greek ['pente] : English five.

   t - θ Latin tres : English three; Latin tenuis : English thin; Latin tu : Old English þu [θu·] 'thou.'

   k - h Latin centum : English hundred; Latin caput : English head; Greek ['kuo·n] : English hound.

2. Certain Indo-European languages have voiced stops where English exhibits unvoiced stops.

   b - p Greek ['kannabis] : English hemp.

   d - t Greek ['duo] : English two; Latin edere : English eat; Greek ['deka] : English ten.

   g - k Latin granum : English corn; Latin genu : Old English cneow (with [kn] initial cluster), Modern English knee.

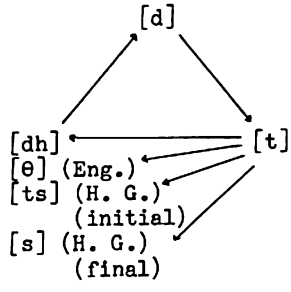
3. Certain Indo-European languages have aspirates and spirants where English has voiced stops or spirants. Note the parallelism of the following:

Sanskrit	Greek	Latin	English
[bh]	[p^h]	[f]	[b]
['bhra·ta·]	[$'p^hra·te·r$] 'clansman'	frater	brother
[dh]	[t^h]	[f]	[d]
[rudhi'ra-]	[$erut^h'ros$]	rufus	red
[h]	[k^h]	[h] or [#]	[g]
[$ha^n'sah$]	[$'k^he·n$]	anser	goose
	[$'k^hortos$]	hortus	garden

These parallelisms are too great to be considered pure chance.

Bill Downing: Is what you say of English true of the Germanic languages as a whole?

Dr. Thompson: To a considerable extent, yes. But Modern High German has undergone an additional set of phonetic changes. Particularly is this true as regards the dental consonants. English has [θ] as in three; High German has [d] as in drei. Where English has [d] as in door, High German has [t] as in Tür. Finally, where English has [t] as in two, High German has a dental voiceless affricative [ts] as in zwei. When English, however, has a final [t] as in foot, then High German has an [s] final as in Fuss. It is easy to diagram this by the following triangle:



If Indo-European has *[dh] as in the stem for 'do,' then the first shift is to [d], and this sound will occur in most of the Germanic languages. In determining the precise quality of this Indo-European sound, there are considerable difficulties. Some scholars contend that this form we write as an aspirated stop was actually a continuant. But it does not make a great deal of difference, for we are only pointing out series of correspondences, not phonetic values.

The English form do represents only the first sound shift. High German makes a second shift and has [t] as in tun 'to do.' If Indo-European has *[d] as shown in Latin duo, then English, representing the first shift, has [t] as in two, but German makes the additional shift to [ts] or [s] as in zwei or Fuss. If, on the other hand, Indo-European has *[t], then English has [θ], a dental continuant, as in three, and the High German has [d] as in drei. There are three types of sounds which shift automatically: (1) voiced stops, (2) voiceless stops, and (3) spirants, affricatives, and aspirates. There is a definite pattern of change. It is not a hodge-podge of unrelated changes.

Bill Downing: But I can think of some words which do not fit this pattern of change.

Dr. Thompson: There are many words which do not. But which ones do you have in mind?

Bill Downing: Well, first of all, octo in Latin and eight in English. You showed us before that Latin [t] in tres becomes English [θ] as in three. This is in keeping with the first shift on the diagram. However, in the word for 'eight' both languages have a [t]. How does that happen?

Dr. Thompson: Note that in these instances a [k] precedes the [t] in Latin and that a velar continuant formerly preceded the [t] in English. This fact is indicated by the digraph gh. Compare also High German acht 'eight,' where the digraph ch represents a voiceless velar continuant. Wherever this velar continuant precedes the stop [t], there is no change. Notice that the same thing has happened with [t] when preceded by [s] as in Latin est, Greek [esti], and German ist. Here the presence of a continuant has "prevented" the change, as we often say, but it would be better to say that under such and such circumstances there is no change.

Bill Downing: But what about the words father and brother? In Latin [t] occurs medially in the words pater and frater. The same is true for Greek, but in High German one finds Vater 'father' and Bruder 'brother.' In English both these words have [đ] for the medial consonant. This doesn't seem to work according to the diagram which you drew.

Dr. Thompson: This is another one of those "exceptions," but it is strictly conditioned. The basis for this divergence was discovered by a man named Verner, and ever since it has been called "Verner's Law," rather a misnomer, even as Grimm's Law is a misnomer. Verner noted not only these words, but many others which exhibit the same type of variation. He found, however, that in all such words the consonant in question follows an unaccepted syllable in Greek and Sanskrit, and presumably in Indo-European. In the changes which occurred with Indo-European *['bʰra·te·r] 'brother' and *[pə'te·r] 'father' the dental stop became a continuant as the first step in the series of change. Next, however, the continuants between vowels became voiced when the preceding syllable was unstressed. This would mean that the [t], originally the same in the word for 'father' and 'brother,' became differentiated. The word 'father' developed a [đ] and the word 'brother' retained a [θ]. In turn the [đ] of 'father' became [d] as shown in Old English ['fɑder]. This puts the dental in

'father' one step ahead of the dental in 'brother,' as far as the triangle diagram is concerned.

Bill Downing: But in Modern English the dentals in the words brother and father are the same.

Dr. Thompson: That is right. In English, all syllables [-der] became [-ðer]. Likewise, medial [θ] became [ð]. Hence the two dental consonants coincided. But in High German they remained distinct. The word 'brother' makes the regular two shifts, (1) from voiceless stop to continuant and (2) from continuant to voiced stop so that we have in High German Bruder. High German Vater 'father' may be considered as having two extra steps, though (2) and (3) may be schematically combined: (1) voiceless stop to voiceless continuant, (2) voiceless continuant to voiced continuant under special accentual circumstances in following an unaccented syllable, (3) voiced continuant to voiced stop, and (4) voiced stop to voiceless stop.

Ann Ferrell: Does this Verner's phenomenon occur in descriptive materials or in situations we are more familiar with than these old histories?

Dr. Thompson: It is quite common. Note, for example, the treatment of the two sibilants in the word possessor [pə'zesər]. In French, from which this word is borrowed, both sibilants are voiceless, but we have voiced the one following an unaccented syllable and left voiceless the one following an accented syllable.

In the Mixe language of Mexico one can apparently eliminate the voiced stops as phonemic entities on the basis of the conditioning of the stress pattern. That is to say, voiced stops are conditioned by the lack of stress in the preceding syllable. Verner's phenomenon seems to have operated rather extensively in the Mixe-Popoluca-Zoque group of languages.

Jack Sheridan: They are too numerous to consider in such a brief discussion, but one of them is "Grassmann's Law," as it is called. All of you who have studied Greek remember that you never find two contiguous syllables each beginning with an aspirated consonant. In every case the first is changed to a simple stop. When, for example, a stem [t^he·-] is reduplicated, one finds [$'tit^he$·mi], not *[$'t^hit^he$·mi].

Jack Sheridan: Can you say that if you discover all the conditioning factors, then you have a perfectly regular system?

Dr. Thompson: No, we cannot say that, for there are other factors. One is borrowing, which we have mentioned before, and one is the matter of analogical change. For example in the history of Greek all medial s's between vowels were lost.

Jack Sheridan: But that seems impossible, for think of all the s aorist forms! In fact, the normal way to form the aorist is with s plus the first aorist endings. I can think of many words with medial s.

Dr. Thompson: That is true. There are many single medial s's between vowels. But the s aorist seems to have been an introduction by analogy. First, all single medial s's were lost between vowels. Subsequently double ss became single s. This had to take place after the first process had stopped, or the double ss would likewise have been lost. However, the s for the aorist was not lost when it followed a consonant. Hence in such aorists as ['eleksa] 'I said' the s as a sign of the aorist was preserved. Also in the word ['egewsa] 'I gave a taste,' it was retained, for the stem of the latter word is [gews-]. In the aorist this would have given *[ge·ws-s-], with a double [ss], which was reduced to single [s]. This provided the basis for an analogical extension of the [s] as a sign of the aorist, and as such it was reintroduced.

Bill Downing: What are we to do with the materials which we find do not fit any series of correspondence?

Dr. Thompson: The process is to find all the correspondences that one can, not only the regular ones, but those which have certain conditioning factors. Those which remain will come under several heads. (1) Accidental correspondences. Latin dies and English day seem to be this. You can always find accidental correspondences between completely unrelated languages. Yipounou, a Bantu language, has wenda similar to English wend. (2) Correspondences as the result of borrowing. English dental is borrowed from Latin dens 'tooth.' Latin dens corresponds historically to English tooth. Sometimes the borrowed words change their form considerably. In Chatino the Spanish word sombrero has been adapted as smblu, and chocolate as škla. These changes are in accordance with very regular phonological patterns. (3) Lack of correspondence as the result of alternate forms within the parent language. That is to say, there must have been dialectical differences and alternate forms within the original language area. (4) Lack of correspondence as the result of analogical changes within the language.

Ann Ferrell: Tell me, Dr. Thompson, just what good is all this comparative and historical study. It doesn't seem to be half so important as descriptive studies, for in descriptive work one learns how to acquire a language more rapidly and thus one gains a very practical advantage.

Dr. Thompson: That type of statement seems very strange in some ways. Most linguists, particularly those of the past generation, would have taken quite the opposite view. They found in historical and comparative studies what they considered to be the only worthwhile type of linguistic research.

There are, however, some distinct advantages to be found in comparative and historical research. First, we learn that change in language is not erratic and that this change, though it may include millions of speakers, is systematic. This provides us the assurance that the activity of organized society has an organic unity, since such mass action indicates definite patterns of modification. The second value is something which we have mentioned briefly before. This has to do with reconstructing prehistorical situations, such as the determination of the type of culture which the so-called Indo-Europeans had in common before they divided into different language groups. Comparative linguistics is also one of the principal aids to the anthropologist who desires to know if certain peoples are related. For example, the Iroquois Indians exhibited certain traits very characteristic of Indians of the southern part of the United States. They had woven sandals, toy blow-guns, and elaborate village fortifications. Their relationship to Indians of the South is proven incontestably by the fact that the Iroquois languages and Cherokee are closely related. By language affinity we can relate the Catawba Indians of the southeastern United States with the Sioux of the Great Plains. Similarly we relate the Apaches and Navahos of the southwestern United States with the Yellow Knives of northern Canada because they speak related languages, called Athabascan.

Bill Downing: Can the comparative method ever tell us anything about directions of migration of tribes and former relationships of tribes?

Dr. Thompson: We can make some generalizations at times. In California there are many different language stocks. It is supposed that Indians liked to go to California just as people throng there today. The climate was good and food was plentiful. But as more and more groups pressed into California and occupied land they did so only at the expense of those who were already there. Hence the original groups were

probably greatly reduced in size, and in many cases they represented only remnants of undoubtedly far larger tribes.

In southern Mexico the Mayan tribes evidently acted as a barrier to penetration further to the south. Many tribes sought to force their way toward the south, where the climate was better and vegetation more abundant. That is probably the reason that there are so many linguistic families in Mexico. One group after another came into the land, only to be stopped by the Mayan peoples. In turn such tribes were crowded by other tribes coming in from the north. This reconstruction is suggested by the distribution of many different language groups and families in Mexico.

Bill Downing: I had in mind a more detailed reconstruction of situations. Something more than a matter of geographical relationship.

Dr. Thompson: There is one interesting feature which was called to my attention in working with some of the Mayan languages in Mexico. There are three principal linguistic areas of Mayan languages. One includes the Mayan languages of southern Mexico. The second comprises the Maya proper of Yucatan, and the third includes the Mayan languages of Guatemala. The Maya of Yucatan has very definite affinities with the languages of southern Mexico, but it has other conspicuous similarities to languages of Guatemala. In fact, in many important features the Maya of Yucatan is closer to both the Mayan languages of southern Mexico and the Mayan languages of Guatemala than either of these latter groups are to each other. Yet, some languages of Guatemala and southern Mexico are contiguous, and the Maya of Yucatan is separated from both groups by miles of jungle and almost impassable terrain. The existence of a political boundary between southern Mexico and Guatemala is of little significance, for most of the changes between the languages apparently antedate the Spanish conquest. Furthermore, the Indians have been only slightly hampered by such border restrictions. How then is this situation to be explained?

Richard North: Some archeologists and anthropologists claim that the Mayas of Yucatan come from more or less the northern part of Guatemala.

Dr. Thompson: Right. Here is where linguistics brings in the evidence to confirm such a hypothesis. The Maya of Yucatan must have been more or less central at one time between the present Mayan languages of Guatemala and the Mayan languages of southern Mexico, for the Maya of Yucatan appears to be

closer to each of these two principal groups than they are to each other. The Yucatecan Mayas evidently migrated out to Yucatan, and from the types of linguistic evidence they did this in not too far distant times. Subsequently, the other Mayan language groups filled the gap left by the migrating Yucatecans.

Bill Downing: There must be great possibilities for reconstruction from that type of evidence.

Richard North: I wish that you would deal more extensively with borrowing and analogical changes. It all seems easy now, but I fear that I could not recognize such a situation if I saw it in new material. What types of borrowing and analogical change are there? How are these related to semantic change, which we read so much about in the outside reading you assigned?

Dr. Thompson: You have asked entirely too many questions to be answered in a breath, and that is about all that is left of this hour's class. I suggest that we take these topics up tomorrow. They are important, but far too extensive to be handled today.

Interlude 6

THE CLASS DISCUSSES ANALOGIC-SEMANTIC CHANGE AND BORROWING

Jack Sheridan: You told us yesterday, Dr. Thompson, that we would continue the discussion about changes in language. You had touched on semantic changes and also analogical changes, but the hour was up when the problems were introduced.

Dr. Thompson: I remember. It will be worthwhile going into these historical problems.

Bill Downing: But how is it possible for us to determine historical changes when we do not have the historical evidence in most of the aboriginal languages that we describe? And since we often study only one dialect, it is almost impossible to reconstruct historical forms.

Dr. Thompson: True. Furthermore, we should not try to reconstruct historical forms. We must have historical evidence to evaluate properly any historical developments which we may postulate. There is nothing so fruitless and deceiving as making inferences about the older forms of a language from only one set of descriptive data. If we have two sets, either representing two historical stages of the same language or representing two different dialects of the same language, then we can make some deductions, but without these sets of data to compare, it is unwise to speculate.

Bill Downing: Then for the descriptive linguist what is the value of this historical interest?

Dr. Thompson: First, it is important for one to know the types of factors which have been present in shaping any language. Furthermore, a knowledge of the types of historical changes which take place in a language and the complications involved will often prevent us from drawing silly, ill-considered, and naive conclusions from inadequate data. But the second principal value to be derived from a study of historical changes is the fact that in descriptive analyses we frequently come across situations which reflect historical processes. For example, as we noted in the discussion yesterday, one of the most important factors in the spread of any form is the

fluctuation between alternate forms by various speakers. We should not be surprised then if informants of aboriginal languages give us one form on one day and another form on another day. When this is called to their attention, they will usually affirm that such alternates are the same. The same is true of all languages. In English I employ at various times five different forms of the word believe, namely, [biy'liyv], [bi'liyv], [bɛ'liyv], [bə'liyv], and ['bliyv]. Certain contextual situations determine which form I use, but there is considerable fluctuation and the contexts for the various forms are difficult to define. I habitually fluctuate between ['ruwf] and ['ruf]. Accordingly, when we find fluctuations in forms among speakers of other languages, we must not be surprised. This is a very common and important feature in any language. In fact, fluctuation is the very life-blood of change in the language.

Richard North: Will the study of changes of meanings help us in solving semantic problems in an aboriginal language?

Dr. Thompson: It should, if such semantic study is properly applied. Certainly, a knowledge of semantics should help one avoid crass errors in working with informants. For example, one student asked a speaker of the Oto language for the word 'horse,' then for the word 'back,' and finally for the word 'ride.' He then expected to find these same stems in the Oto word for 'horseback riding.' In fact, he remonstrated with the informant because the informant gave him a word which didn't include any of these stems. We must not expect to find exact equivalents for metaphors such as "leaf of a book" or "tongue of a wagon," nor must we attempt to translate literally such expressions as "puddles of water stood in the road" or "he lifted up his eyes."

Richard North: In addition to phonetic change, which you discussed yesterday, what are the other principal types of change?

Dr. Thompson: One principal type of change which affects languages we may conveniently call analogic-semantic change, and another very important type of change involves borrowing.

Bill Downing: Why do you group analogic changes and semantic changes together? I always thought they were quite different.

Dr. Thompson: They are in many ways, and yet there is something which does unite them. This is the fact that in both analogic and semantic change one must deal with the meanings of the forms involved, except in the case of some analogical phonetic changes. The first type of change, namely, phonetic,

occurs wholly within the language and is usually made quite apart from the meanings of the morphemes involved. The second type occurs within the language and normally involves the meanings of the morphemes. The third type, borrowing, occurs as a transfer from one dialect or language to another.

Ann Ferrell: You have mentioned before that language is nothing more nor less than a system of analogies. But what do you mean by analogies and analogical changes?

Dr. Thompson: Your question is a good one. But let us turn to mathematics for a moment. It will be easier for us to understand. Note the following proportion:

$$2 : 4 = 3 : 6 = 4 : x$$

You do not have to hesitate a moment before answering that x equals 8. The relationships between 2 and 4 and between 3 and 6 establish a pattern, so that x is equal to 8. In mathematics this is an analogical proportion. We have similar situations in languages.

Ann Ferrell: I only wish that languages were as simple.

Dr. Thompson: In some ways they are. A linguistic analogy is only the statement of a proportion or pattern in language. Let us suppose that one has heard the word radio for the first time and has never heard the plural of this word. He probably will not hesitate long in forming a plural for the word, for he has a pattern or proportion to guide him. For example,

banjo : banjos = billow : billows = radio : x

With practically no hesitation the speaker will say radios.

Bill Downing: But why specifically wouldn't he relate this word to a pattern with -en, as in oxen.

Dr. Thompson: In the first place, the -en occurs regularly with only one word, namely, oxen. It constitutes a very limited pattern, even when one includes the words children and brethren. But there is another feature. The speaker has no doubt had occasion before to note that if he formed a new word on the s plural pattern, his choice was correct. He has discovered then that the s plural pattern is the productive pattern and that the -en pattern is fixed and limited.

Richard North: Then, if one makes up a word such as educationalize, does he do so simply by following analogies?

Dr. Thompson: Right. I do not know if I have ever before heard the word educationalize, but it makes some 'sense,' because it is built up on the analogy of other words. There is a pattern and a very extensive one which permits the addition of -al to almost any noun ending in -ion. In turn, the pattern, or analogical proportion, is very extensive for adding the "factative" suffix -ize to any adjective ending in this suffix -al.

Bill Downing: Then the person who wishes to translate from one language into another, especially if he has to construct new words in the language into which he is translating, must by all means know the patterns of formation.

Dr. Thompson: That is absolutely imperative, but few translators are fully aware of the importance of it.

Jack Sheridan: You mentioned, Dr. Thompson, that analogy affects all parts of a language. How does this involve the syntax?

Dr. Thompson: Every language is filled with such examples. One, however, which becomes involved in so much discussion is the matter of like employed as a conjunction.

Ann Ferrell: Dr. Zilch is especially opposed to such "corruption," as he calls it.

Dr. Thompson: Instead of corruption it is purely a matter of the pattern and the pressure of the pattern toward conformity. We have a word than which introduces a clause or a phrase. Like is employed generally in phrases and is analogically extended to introduce clauses. This conforms the function of than and like.

I work more than John : I work more than John works =

I work more like John : I work more like John works.

The fact that the word more is employed somewhat differently on the two sides of the equation does not alter the value of this analogical pattern.

Bill Downing: If the adjustment of a form to another better-known form, or to another pattern, is all that analogy involves, then most popular etymologies should be classified as analogical formations.

Dr. Thompson: You are right. In Middle English a form crevise, meaning 'crayfish,' was borrowed from Old French crevisse.

The English word was 'reinterpreted' and made to conform to more meaningful morphemes, so that we now have crayfish. However, only the second morpheme has some meaning definable in terms of a non-linguistic referent. In the word gooseberry, popular etymology has done somewhat better. This word was borrowed from French groseille, and completely adapted, first by losing the second morpheme, and secondly by employing the first in adapted form as the first constituent in a compound. There is no part of any language--phonemes, morphology, syntax, or lexicon--which is free from the working of analogy.

Bill Downing: Why is it that a language does not reach the static point where no further analogic change will take place?

Dr. Thompson: For one thing, phonetic change takes place continually. This means that items which would otherwise be in analogical conformity are thrown out of line. Moreover, languages cannot live to themselves; they borrow from other languages or dialects, and this necessitates the assimilation and adaptation of material. Furthermore, analogy must have free operation. If it were not for analogy in languages, there would be no such thing as speech; no one would be able to say anything which he had not heard before. Complex communications are only possible because languages are systems of patterns into which we can fit various lexical items in different arrangements from those we have heard before. The only way to prevent change is to stop life. Analogical change ceases only in a "dead" language.

Richard North: I remember that in the King James Version of the Bible cow is employed for singular and kine for plural. Does the fact that we no longer use kine for the plural of cow indicate the working of analogy?

Dr. Thompson: It does. An analogical pattern for cow : cows may have existed in sow : sows. Moreover, the s type of plural was at the time of this change growing in popularity. The s plural had become the productive pattern. We are not leveling plural formations now, except perhaps in a class of words such as rooves ['ruwvz] versus roofs ['rufs], and lathes ['lædz], versus laths [læθs]. The operation of analogical leveling or pressure toward conformity will occur in one area of the language for a time and then in another.

Bill Downing: Can we tell in advance which part of the language is going to be subject to such leveling influence of analogical change?

Dr. Thompson: We cannot know. We only know that analogy operates in those parts of the language which are out of equilibrium with the general structure as a whole. At present in English considerable leveling appears to be operating in the matter of the so-called perfect participles. Note the fluctuation in the word proved versus proven. In a high percentage of words in English the form of the perfect participle and the past tense are identical. This situation constitutes a pattern for leveling. At present many speakers employ proven in adjectival usage and proved in the verb phrase, as in the proven fact and I have proved it. Compare this with with a shaven face and I have shaved.

Ann Ferrell: Why is it, if analogy attacks the parts of the language that are out of line, that it does not level such items as the irregular parts of the verb to be? It would seem that am, are, is, was, were, and be would be good objects for this analogical change.

Dr. Thompson: Your reaction is a good one, but it so happens that the more frequently employed words of a language resist analogical leveling the most. In many languages one finds that irregular forms appear chiefly among the commonest words and phrases of the language. The reason for this is not difficult to find. Let us presume that one has heard both proved and proven, but he has not heard them sufficiently often and in enough contexts so as to be sure precisely which one is to be used in a particular situation. He is more likely to choose the form proved, which fits the predominant pattern of formation. If the hearer reacts to the situation at all, his reaction will probably be more or less the same as the speaker's, for these forms proven and proved are probably not too common in his speech and hence the analogical pattern of conformity of past tense and "perfect passive participle" forms has more opportunity to operate. The speaker is easily understood and meets with no derision as to his choice of forms. Each time he uses proved in place of proven he meets with a similar experience, so continues to use the form representing the more common pattern. But if on the other hand the speaker should say I is trying, having chosen a less frequently employed form, but one which he may have heard from some speakers of sub-standard English, he may be somewhat misunderstood, and certainly he will not make the most favorable impression upon a speaker of standard English. The forms of the verb to be are too common to be objects of doubt. One who says I is trying may suffer derision or loss of prestige by such an expression. In many circumstances of life it is important that a speaker make a favorable impression upon those who speak standard English, for these standard-English speakers are those who more or less carry on the

affairs of the English-speaking world. They are the ones of social and economic prestige and power. Hence conformity to such a standard will add to the prestige of the speaker and at the same time be a means of obtaining social and economic advantages.

Bill Downing: Does analogy account for the development of some new morphological element, such as -ly, which I understand came from like?

Dr. Thompson: You are right. The -like in such compounds as man-like and woman-like was changed phonetically to the present -ly, and it has become a productive affix which we may add to many nouns to form adjectives and to many adjectives to form adverbs.

Richard North: But if the -like in man-like changed to -ly, how is it that we still have the compound man-like? It doesn't seem to make sense to say that something changes, when it remains the same.

Dr. Thompson: The fact that we have man-like along with manly indicates that a new compound has been formed with the constituents man and like. The phonemic modification of elements of a compound and then the re-formation of a compound like the first is not uncommon. The compound ['hu·s-wi·f] 'house-wife' has become modern hussy. However, another compound with the same constituents has been made so that we have both house-wife and hussy.

Ann Ferrell: I should imagine that people might get their analogies twisted at times, even as they do in popular etymologies.

Dr. Thompson: That is so, if you mean that the analogical formations are contrary to the historical pattern of derivation.

Jack Sheridan: You couldn't expect the common run of people to know the history of the language. Even the so-called scholars are caught making mistakes in etymology.

Dr. Thompson: We cannot expect people to follow historical principles, but we can expect them to follow analogical principles, and they do. People are always re-making a language to fit the patterns which they imagine should exist. As an example of this, one may cite the English forms cherry and cherries. These forms come from Old French cherise, borrowed as Middle English cheris. But this s ending evidently seemed to be a plural, for the speakers formed a new singular on the analogy of the s plural type, so that we have now

cherry singular and cherries plural. This is called a back-formation. Note a similar situation in the verb burgle derived from the noun burglar.

Bill Downing: But do the speakers of a language actually reason out these types of analogies, or is it all quite accidental?

Dr. Thompson: We must never suppose that people apply any strict logistic methodology to their linguistic decisions. Most analogical formations are made quite unconsciously. People "slip" into a pattern without realizing just why they have said what they have. For a moment a speaker may have forgotten which form he has heard in a particular construction. But in normal speech one does not hesitate long, and so a form is produced which is in keeping with what seems to fit the general pattern. Perhaps a speaker wishes to use a past tense form of dive. He may have the impression that the vowel changes somewhat, but he doesn't remember exactly what form it is. He shifts then to the regular pattern and says dived. Using this form he will probably meet with an understanding response and little if any unfavorable reaction from the hearers.

Jack Sheridan: But what is the relationship between analogy and fluctuations? Let us say that the speaker has heard both forms dove and dived. What is the factor which would induce him to say dived rather than dove?

Dr. Thompson: It is convenient to recognize as analogical formation the first occurrence of such an analogical form. From then on, if one has heard both forms, the choice of one or the other is a matter of fluctuation between forms.

Bill Downing: But doesn't analogy play an important role in the fluctuation of forms and the ultimate discarding of one or the other?

Dr. Thompson: It does. If the speaker has heard both dove and dived, he is very likely to choose dived because of the predominance of the regular pattern. In the fluctuation between forms we have to recognize the pressure of the pattern which influences the choice in accordance with the analogical conformity.

Ann Ferrell: You have mentioned before the factor of writing in a language, and how such writing is of so little significance in preserving the forms of a language. However, it seems to me that in the fluctuation between forms, the written form would have a good deal of prestige.

Dr. Thompson: Your point is well made. We must emphasize continually to people that writing does have little effect on preserving a language. Witness the fact that we cannot understand Chaucerian English when the Canterbury Tales are read with the phonetic values for the letters which were employed at that time. However, there is something very true in what you say about conventional writing giving prestige to certain forms. Spelling pronunciations account for the t being pronounced by some in such words as often, hasten, and fasten. The fact that we have a θ sound in modern author is the result of using a digraph th to represent the t of Middle English autor.

Richard North: But doesn't the fact of a language's being written contribute a good deal to the vocabulary?

Bill Downing: What do you mean?

Richard North: We certainly would not say the U.S. for the United States if it were not for the fact of spelling and for the special names given to letters of the alphabet.

Dr. Thompson: True. Writing does give us new words, but these are not very numerous despite such abbreviations as lab for laboratory, aud for auditorium, and such so-called letter names as Socony "Standard Oil Company of New York," and Wac "Women's Army Corp."

Ann Ferrell: It would then seem that writing, instead of stabilizing a language, really produces numerous changes in it.

Dr. Thompson: Writing can probably be held accountable for as many changes and new forms as preservations of old ones.

Ann Ferrell: Writing surely hasn't prevented words from going out of use. Consider how so many words employed in the King James Bible are completely unknown today.

Dr. Thompson: It is true that some antiquarians and classicists take great pleasure and expend considerable effort in reviving old words. But such efforts at resuscitation are usually rather futile. This does, however, introduce us to the next general problem which we wanted to discuss today, namely, semantic change, or the change in the meaning of words.

Bill Downing: But are there not semantic changes in other items in a language besides words?

Dr. Thompson: I am glad that you noticed my mistake, for it

would not be correct to give the impression that words alone are involved in such changes. Of course, any lexical or grammatical feature may change in its meaning. The changes in word order of English are illustrative of this fact. In Old English, as we have had occasion to point out, the relative order of the subject, object, and verb had little signalling value except as a matter of rhetorical style. The value of word order was connotative. Today word order is significant in pointing out the subject and the object of the action. The fact that the value of the order is now denotative constitutes a semantic change in a grammatical feature.

Ann Ferrell: But one usually thinks of words when studying semantics.

Dr. Thompson: Yes, but perhaps we would have a better picture of the entire problem if we didn't restrict our viewpoint. In the matter of words, however, semantic change is a great deal more obvious. For example, we may cite the word prevent as used in the King James Version of the New Testament (I Thessalonians 4:15). Here one reads that those who are living shall not "prevent" those who are asleep. A glance at the Greek as well as a consideration of the English context, leads one to realize that "prevent" must mean "go ahead of." Today we do not use "prevent" in the sense of "go ahead of."

Even such a translation in the Bible as "take no thought for the morrow" seems rather strange as a translation of a Greek word which normally means 'worry.' However, when we read in some of the historical sources that Queen Elizabeth died of "thought," we then realize that the translation was appropriate when it was made, but the word thought has since changed in its meaning.

Jack Sheridan: How can a person classify these changes in the most advantageous way?

Dr. Thompson: The science of semantics has not progressed to the point of being able to classify changes in any very inclusive and revealing way. There are, however, the older classifications that deal with such factors as "narrowing" and "widening" of meaning, metaphors, and synecdoche.

Jack Sheridan: Would you give us an illustration of these so that we may know what you mean?

Dr. Thompson: Gladly. Narrowing of meaning is illustrated in the change of meaning in the word hound, which now normally

designates a particular breed of dog, but in Old English, hund designated any 'dog.' The opposite of narrowing is widening, as illustrated in the change from Middle English dogge 'a dog of a particular breed,' to Modern English dog. A metaphorical change may be illustrated by English chief from Latin caput 'head.'

In metonymy the referents of words are near each other in time or space. The Modern English word cheek is derived from Old English ceace meaning 'jaw.' In synecdoche the meanings are related as the whole and the part. Modern English town is derived from a word meaning 'fence.' The 'town' was a 'fenced' place. In hyperbole a word shifts from a stronger to a weaker meaning. English astound is derived through the French from Latin lexemes meaning 'strike with thunder.' Litotes is the opposite from hyperbole. In litotes the meaning shifts from a weaker to a stronger meaning. Modern English kill is derived from a stem meaning 'to torment.'

Some words degenerate in meaning. For example, English knave originally designated a 'boy' or 'servant.' There was no unfavorable connotation involved originally. (Compare with German cognate Knabe 'boy.') On the other hand, the word knight has been elevated in meaning, for in Old English, cniht designated a 'boy' or 'servant.' (Compare the German cognate Knecht 'servant.')

Jack Sheridan: But what good is this type of classification going to do us in work with descriptive linguistic problems? One has to have the history of a word in order to know what has happened, and usually the history is precisely what we do not have.

Dr. Thompson: It is true that such classifications as these we have just noted, do not help the descriptive linguist to any great extent. However, such classifications do put us on the alert for possible relationships between morphemes. For example, we will probably want to relate the -th [θ] in sloth ['sloθ], 'lack of industry' to the same [-θ] which occurs in truth, growth, wealth, and width, rather than deriving sloth 'lack of industry' from the name of the characteristically inactive animal called sloth. On the other hand, in the case of faith which likewise ends with a [θ], we would not want to relate [θ] to the morpheme occurring with truth, growth, wealth, and width, for we could not find any morpheme which we can relate to fai- [fey-] as slo- in sloth can be related to slow.

Ann Ferrell: What types of semantic problems does one actually

encounter in working with some aboriginal language?

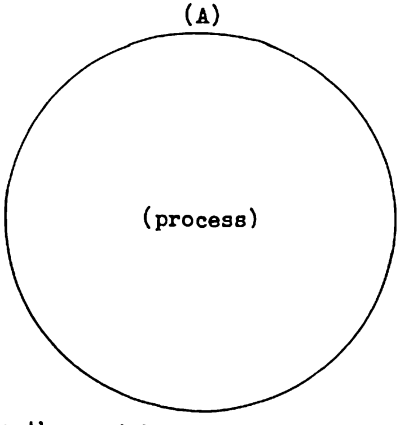
Dr. Thompson: In general one finds three kinds of semantic difficulties. These involve borrowed words, figures of speech opposite from those which we employ, and absence of lexical patterns used in languages familiar to us. For example, the Aztec Indians of Tetelcingo, Mexico, have borrowed the Spanish word gloria, which in Spanish is roughly equivalent to English glory. But for these Aztecs their form gluria is used primarily to designate a drinking party. Figures of speech quite opposite to our own are found among the Shulla people of the Sudan. For them a 'big heart' indicates selfishness and a 'small heart' generosity. The absence of similar lexical patterns is very common. Of course, one cannot say 'white as snow' in the language of a people who have no knowledge of snow; but such expressions as "it came to pass," "heaping coals of fire upon one's head," and "fell asleep" must all be greatly altered in form if they are to make sense in some languages. The detailed examination of all such problems is very complex; we can only deal here with the general principles.

Jack Sheridan: What are these principles?

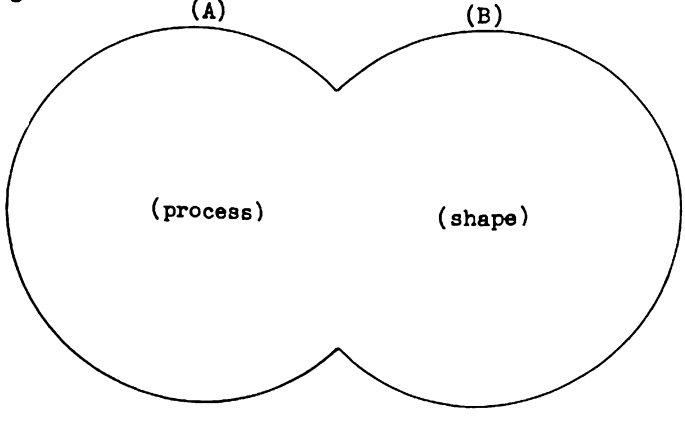
Dr. Thompson: First, we must remember that a word is not a point of meaning, but rather an area of meaning. Too many rhetoricians strive for what they call "preciseness" and in doing so make arbitrary limitations as to the meaning of certain words. This is artificial. In defining the meaning of a word or of any grammatical form, we must recognize primarily the linguistic situations in which such a word or form occurs. This is the linguistic meaning, and for the linguist, this is the meaning that is most important. In working out the grammar or lexicon of a language, we make it a practice to write down on a separate slip each occurrence of a form together with its context. Then when we have several slips with this morpheme, word, or grammatical feature, we attempt to discover the common denominator of meaning of such expressions. We attribute this meaning to the one formal item which the expressions have in common. For the Oxford ictionary millions of slips were employed, noting the usage of words in many thousands of pages of text. Then the slips for each word were classified, and the principal areas of meaning were noted. A dictionary should be a description of usage. The reason that dictionaries are apparently so conservative and at times antiquated is that they base their classifications almost entirely upon past literary usage.

Jack Sheridan: But what about these areas of meaning?

Dr. Thompson: Let us consider a typical illustration of change. The word crescent formerly meant 'increasing' or 'growing.' In this connection it was used in speaking of the moon in the waxing phase, or 'increasing' phase. This stage we may diagram as:



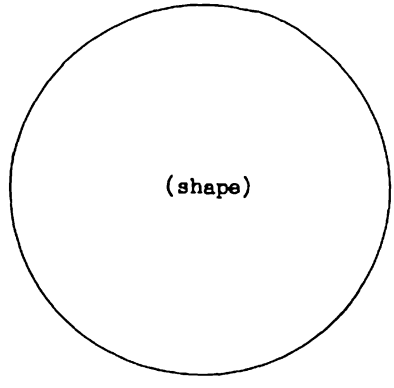
However, along the periphery of the area of meaning for crescent there arose a marginal meaning indicating a particular shape, as of the moon in the first or fourth quarter. At this stage, the word crescent denoted either an increase or a particular shape. The word crescent would then have an area of meaning with two centers. This second stage we may diagram as:



In the history of this word, evidently the word crescent was used with increasing frequency in a context which involved the second meaning of shape. Finally there would be those who would hear the word crescent only in situations involving

shape. They would be oblivious of the fact that another meaning had existed. For such people, the word crescent may be diagrammed as:

(B)



This area is entirely different from the former area (A). With this same word there is another development of meaning for certain specialized contexts. One may speak of the 'crescent' as being synonymous with Mohammedanism, in such an expression as the "conflict between the Crescent and the Cross."

Ann Ferrell: With all your talk about the waves of change, the fluctuation between forms, types of phonetic and phonemic modifications, reshaping by analogy, and now changes in semantics, it would seem that language is very shifting and unstable. And yet in actual experience it seems that language is very fixed. How do you reconcile these two impressions?

Dr. Thompson: First, I fear that our authoritarian and old-school attitudes tend to exaggerate the amount of stability, or at least hoped-for stability in the language. On the other hand, though each language is constantly in the process of changing, it is very difficult for us as speakers of a particular language to note the changes which occur in it. This situation is somewhat similar to a great river. Actually the river is continually reshaping its course by removing dirt from one place and depositing it in another, but as we sit along the banks it is quite difficult to notice any change. Even if we come back to the river after several years we do not notice many very radical changes. It resembles the same river very closely. On the other hand, the geologist who can reconstruct the history of this river may point out that the

shape, size, and function of this river may have been quite different a few milleniums ago. The man who sits on the bluff and looks at a river is not so aware of the constant changes in the river's course as one who daily pilots a boat up and down it. For him the constant change is apparent. The river begins to live and take on personality. So it is with language. It is the linguist who sees language in its flux and change.

Richard North: Your explanations do not, however, explain the reason why words should come to have wider semantic areas than they had originally, or why even more restricted ones.

Dr. Thompson: My explanations most surely do not explain the "why," and they probably never will. In fact, in linguistics we give up trying to explain the "why," and try to content ourselves with describing the "what" of linguistic patterns and change.

Ann Ferrell: Couldn't the desire for picturesqueness in speech or the desire for novelty, perhaps even the poetic quality of people, explain this?

Dr. Thompson: Those qualities you have suggested are no doubt factors. They do indicate tendencies, but these are far from complete explanations. We shall have to know much more about languages than we know now before we can make conclusive generalizations about such phenomena as semantic change. Nevertheless, it is worthwhile to point out some practical situations which may underly types of change.

Jack Sheridan: What are they?

Dr. Thompson: For one thing changes in material culture may modify the meanings of words. In one of the old translations of the Bible one reads that Jonathan gave his artillery to his servant while he carried on conversation with David at the time of their historic parting. Jonathan's artillery consisted of his bows and arrows, but modern developments in projectiles of war have changed the meaning of the word artillery.

At times it has been the functional change in material features of our culture which has led to a change in meaning of a word. Formerly in English the word which is now fee was used to designate live stock. Such live stock were a medium of exchange. The functional value of live stock has changed in this respect but the word continues to be associated with the function of medium of exchange. Frequently our increased

knowledge about an item alters the meaning of a word. For example, the word atom is a borrowing from Greek with the meaning of an indivisible unit of matter. Modern scientific investigation has altered completely the original meaning of this word.

In some cases the change in meaning of a word has resulted from what may be called an accidental functional association. When English-speaking people formerly counted their bedes, they were counting their 'prayers,' for bede meant 'prayer.' (Compare the German cognate beten 'to pray.') However, as men prayed they counted the prayers with little perforated balls. The word bedes came to be a designation for the little perforated balls rather than for the prayers. Former English bedes became Modern English beads.

Bill Downing: Does one ever find a change in meaning from a so-called proper noun to a common noun? For example, we may say he is a veritable Shakespeare. Such a word as Shakespeare might eventually come to denote a poet, and not the original dramatist.

Dr. Thompson: You have hit on a good principle and one which does operate. This has happened in the case of the German word Kaiser and the Russian tsar. Both of these words are derived from Latin Caesar which was a proper name, but later became synonymous with 'emperor.'

Richard North: I should think that concrete words would often become abstract and vice-versa.

Dr. Thompson: They do. The word eliminate is derived from Latin eliminare 'to put out of the house.' This is the case of a concrete word developing an abstract meaning. Or the process may be reversed. Note the word liquidate which was used so much during World War II in the sense of 'kill.' The change is not complete, but the choice of this word as a euphemism has resulted in the word's having quite an extended area of meaning.

Ann Ferrell: But what about using a part of an expression for the entire meaning? I am always being embarrassed in using the word engaged. Evidently engaged has been used so often without the added expression to be married, that if one speaks of a person as engaged without designating the particular activity, then it is assumed that one means 'betrothed.'

Dr. Thompson: You have noticed a very common process in the modification of the meaning of words. This process is often

called 'shortening.' Some prefer, however, to call it 'ellipsis.' It means that a part of the original expression stands for the whole, or signals the same as the entire expression. We speak of corn in the United States, meaning what was formerly designated as Indian corn. Corn has been used in place of the two-word phrase and with the same meaning of the word corn. Such a change of meaning sometimes results in strange descriptions by uninformed preachers as they speak of the disciples of Jesus "plucking the ears of corn" on the Sabbath.

Richard North: But is this word corn meaning 'grain' the same word as the corn on one's foot? I always supposed that the corn on one's foot was a seed or grain, but perhaps I am wrong. Semantic changes are so complicated and tricky.

Dr. Thompson: In this case you are wrong. The word corn, which designates those troublesome and painful growths on one's feet, comes by way of French from the Latin word cornu, having the meaning of 'horn' or 'hoof.' Yesterday's discussion about the changes in consonants between the Germanic languages and the rest of the Indo-European languages, should give you some clue to this. You will remember we pointed out that [g] in Latin normally corresponds to [k] in English. This relates Latin granum 'grain' and English corn. Also Latin [k] normally corresponds to English [h]. In this pattern of correspondence we find Latin cornu and English horn.

Ann Ferrell: All this seems entirely too complicated for me. There are so many patterns and so many conditioning features. I don't see how you expect us to keep all these changes straight.

Dr. Thompson: I am not expecting you to. After all, the course which you are taking deals primarily with descriptive linguistics, not with historical and comparative linguistics. But you should have something of an understanding of the background for the work which you are now doing; and you should realize that in the same way as you are finding patterns in the descriptive analysis of languages so there are patterns in the historical and comparative analyses of languages. We must become pattern-conscious if we are to deal properly with any phase of language.

Ann Ferrell: But will you point out a practical, descriptive application of some of this material? How can we use it?

Dr. Thompson: You are quite utilitarian, aren't you? But let us consider the word disease as an example which will show

us a descriptive problem and at the same time point out one of the ways in which semantic change is hastened. This is by phonetic changes which tend to obscure the constituents. The historical constituents of the word disease are dis- meaning 'not' and ease.

Ann Ferrell: I have never thought of that derivation.

Dr. Thompson: Probably most people haven't. The feature which has obscured the constituents is the modification of the s in dis-. It has been voiced medially in an accentual pattern conforming to Verner's phenomenon and the second syllable begins with the final sibilant of the dis- [diz-]. This is not the usual pattern for this prefix. Note the word disarm [disJarm]. In this word the sibilant is voiceless and the syllabic break occurs normally after the [s]. These facts are important matters in a descriptive analysis.

Jack Sheridan: In speaking of the semantic changes that have occurred you have mentioned borrowed words several times. How important is borrowing in this connection?

Dr. Thompson: Quite important, indeed. But it is convenient to distinguish two principal types with a subdivision of the first. The first principal type we may consider as the borrowing from one foreign language by another. This may in turn be divided into two types, (1) when the two languages represent different social, economic, and political units and (2) when the two languages are spoken by those within the same social, economic, and political unit. The first of these types has been usually called "cultural borrowing" while the second type has been termed "intimate borrowing." The second principal type of borrowing is between dialects of the same language. This is called "dialect borrowing." The principal factors in this last type of borrowing were considered in our previous class discussion.

Jack Sheridan: Why do you distinguish between the two sub-types of the first type of borrowing? I should think that the second would only be the intensification of the other.

Dr. Thompson: To a great extent you are right. The differences are, however, sufficiently significant to make it worthwhile to distinguish between them. For example, the words which English has borrowed from Spanish, such as vamoose, maize, pueblo, arroyo, chili con carne, tamale, and fritos, are much more limited in scope and type than those which the Chatino Indians in Mexico have borrowed from the Spanish, the language of the ruling class. Chatino words from Spanish include

borrowings such as ahora 'now,' amigo 'friend,' arroz 'rice,' azúcar 'sugar,' cajon 'box,' Dios 'God,' escalera 'stairs,' escuela 'school,' favor 'favor,' gente 'people,' lápiz 'pencil,' leer 'read,' machete 'large knife,' maestro 'teacher,' máquina 'machine,' mil 'thousand,' mula 'mule,' bestia 'beast,' peso 'dollar (in Mexican money),' queso 'cheese,' remedio 'remedy,' semana 'week,' domingo 'Sunday,' manzana 'apple,' ángeles 'angels,' clavo 'nail,' libro 'book,' mesa 'table,' palabra 'word,' vaca 'cow,' vaso 'glass,' and ventana 'window.'

Bill Downing: Is there any limit to the kinds of words which are borrowed?

Dr. Thompson: Practically none. Words are employed as symbols for every part of culture. When cultural elements are borrowed from one culture by another, the words for such cultural features often accompany the feature. Also, when a cultural feature of one society is like that of another, the word of a foreign language may be used to designate this feature in the borrowing society. In English we have borrowed a material culture word rouge from French, a social culture word republic from Latin, and a religious culture word baptize from Greek.

Ann Ferrell: But no one knows these words are borrowed, except those who study languages.

Dr. Thompson: That is right. Such words become completely absorbed into the system, so that they are not recognized by speakers of the language as foreign. Few people realize that garage is borrowed from French, that thug comes from Hindustani, and that tomato is of Aztec origin.

Bill Downing: Can't you account for this by the fact that such words are made to conform to the phonological pattern of the borrowing language?

Dr. Thompson: That is largely the case. We almost always make such phonological adaptations in borrowed words. An Aztec would never recognize in our pronunciation of chocolate his word [cokolatl].

Ann Ferrell: I should think that sometimes the borrowing language would be changed in its phonological patterns.

Dr. Thompson: That does happen. In the English of the southwest United States a great many speakers pronounce pueblo ['pweblow] rather than [pyuw'eblow], which conforms to the

phonological pattern of English. In the pronunciation ['pweblow] there is introduced an initial consonant cluster [pw] which is not regular in general American speech. Note also the word tse-tse which is pronounced by many people as ['tsetse], thus introducing an initial [ts] cluster which otherwise does not occur in English.

Bill Downing: I should think that spelling pronunciations would be very common in such borrowed words, for so often one never hears such a foreign word pronounced. It is only in writing that one has a chance to become acquainted with it.

Dr. Thompson: Your observation is very correct. Our pronunciation of Mexico as ['meksikow] is a spelling pronunciation. The x represents a velar voiceless continuant in the native pronunciation. This would be more closely rendered in English by an [h]. But the fact that we normally pronounce x as [ks] has resulted in our present usage.

Richard North: Would not popular etymology disguise borrowed words which had strange elements?

Dr. Thompson: This has happened many times, as we have pointed out before in such words as crayfish and gooseberry. When American tourists hear the name of the village Tamazunchale in Mexico, they very often think that this is actually Thomas 'n Charlie, and proceed to call it such.

Bill Downing: Evidently, words are the most common items which are borrowed from one language to another, but are bound forms ever borrowed?

Dr. Thompson: They are. It probably happens that first a set of words is borrowed with such a bound form, and then this bound form becomes a pattern in its own right and may advance by process of analogy. In English we have the bound suffix -able from Latin by way of French, and also the -er agentive suffix from Latin -arius, also by way of French.

Jack Sheridan: But what about borrowing the idea of a word rather than the word? When we talk about life-science instead of biology, isn't that a type of borrowing the meaning of the Greek derivative, but not the actual morphemes?

Dr. Thompson: Yes. This type of borrowing is rather extensive, particularly in scientific vocabulary.

Bill Downing: Are not trade languages examples of an extreme amount of borrowing?

Dr. Thompson: They surely are. Trade languages are one of the most interesting types of linguistic phenomena that one can study. The vocabulary often comes from several sources, though in most instances the vocabulary is of one principal source, as in the case of Pidgin English in the South Pacific. (The word Pidgin comes from English business.) The morphology is usually at a minimum. This is true with Pidgin English and also with such a trade language as Commercial Kikongo spoken in the Belgian Congo. In this latter language many of the verb forms are reduced to infinitives. Words in such a lingua franca are often adapted to the phonological pattern of the "lower" language.

But these features of language are entirely too complex to consider at this time. I trust, however, that we may have at least touched on some of the vital factors which make the study of language so important to the knowledge of man and his problems.

APPENDIX

TABLE OF PHONETIC SYMBOLS

The phonetic symbols employed in this book follow in general the alphabet of the International Phonetic Association, with certain modifications commonly in use among Americanists. For each language the symbols are used consistently within the particular phonemic system, but there is considerable flexibility of usage as between different languages. The following list with accompanying words in English and other European languages provides a means of identifying at least the general type of sound denoted:

[a] pot ['pat]

[æ] pat ['pæt]

[ə] but ['bət]

[b] big ['big]

[ƀ] like [v], but made with both lips rather than the lower lip against the upper teeth, as in English.

[č] chin ['čin]

[ȼ] the sequence [ts] having the value of a single phoneme.

[d] den ['den]

[đ] then ['đen]

[e] bet ['bet], also used with a value similar to French é in été 'summer.' (The English vocalic in gait is phonemically symbolized as [ey], ['geyt].)

[f] fit ['fit]

[g] glow ['glow]

[ǧ] similar to English [g], but pronounced far back in the mouth.

[ǥ] Spanish maguey [ma'ge] 'century plant.'

[h] how ['haw]

[i] bit ['bit], also used with a value similar to French i in il 'he.' (The English vocalic in beat is phonemically symbolized as [iy], ['biyt].)

[ɨ̈] Turkish [kɨ̈z] 'girl'

[ǰ] judge ['ǰəǰ]

[k] kill ['kil]

[ḳ] similar to English [k], but pronounced far back in the mouth.

[m] may ['mey]

[n] not ['nat]

[ŋ] sing ['siŋ]

[ñ] Spanish señor [se'ñor]

[o] Spanish no [no]. (The English no is written phonemically as [now].)

[ɔ] saw ['sɔ]

[p] pin ['pin]

[p̧] like English [f], but pronounced with both lips.

[r] red ['red]

[s] see ['siy]

[ṣ] pronounced with the tip of the tongue turned back toward the hard palate.

[š] ship ['šip]

[t] taught ['tɔt]

[θ] thin ['θin]

[u] put ['put], also used with a value similar to u in Spanish duro 'hard.' (The English vocalic in boot is phonemically symbolized as [uw], ['buwt].)

[v] vim ['vim]

[w] wet ['wet]

[x] German ach ['ax]

[y] yet ['yet]

[z] zip [zip]

[ž] rouge ['ruwž]

[ʔ] as in the English exclamation of surprise "Oh-oh!" ['owʔow].

['] marks the onset of primary stress.

["] or [ˌ] marks the onset of secondary stress.

[·] indicates that the preceding sound is long.

[#] marks a zero feature (a significant absence of some formal feature).

An asterisk (*) marks a hypothetical form.

INDEX