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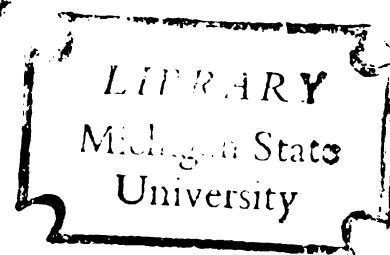
THEORETICAL ORIGINS OF TWO CONTEMPORARY
APPROACHES TO FOREIGN-LANGUAGE TEACHING

Ph D.

MICHIGAN STATE UNIVERSITY

JACQUES MAURICE LAROCHE

1976



This is to certify that the

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THEORETICAL ORIGINS OF TWO CONTEMPORARY
APPROACHES TO FOREIGN LANGUAGE TEACHING.

presented by

Jacques M. Laroche

has been accepted towards fulfillment
of the requirements for

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ABSTRACT

THEORETICAL ORIGINS OF TWO CONTEMPORARY
APPROACHES TO FOREIGN-LANGUAGE TEACHING

By
Jacques Maurice Laroche

The Dissertation notes the need for a study of how psychological and linguistic theories are translated into foreign-language education methods. Analysis of the historical development of language education shows the perennial dominance of two major philosophical positions: empirical and rationalist, whose contemporary representatives are, respectively, the Audiolingual and Code-Learning Approaches, currently the protagonists of a heated controversy.

After identifying the psychological and linguistic models serving as sources for the two approaches, and the ways in which they contrast, the work proposes a methodology capable of detecting and revealing those influences. In a first step, a set of binary variables is used to show the typical profile of each theory. The matrix of features is then transformed so as to apply to the description of actual teaching methods.

An example of further applications of the methodology is supplied under the form of a review of materials used in the teaching of French in American Colleges and Universities.

The Dissertation concludes upon some speculations as to the future development of the controversy and advocates using the rival approaches in a spirit of constructive eclecticism rather than of epistemological competition.

THEORETICAL ORIGINS OF TWO CONTEMPORARY
APPROACHES TO FOREIGN-LANGUAGE TEACHING

By

Jacques Maurice Laroche

A DISSERTATION

Submitted to

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in partial fulfillment of the requirements

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1976

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INTRODUCTORY

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INTRODUCTION

Why write another thesis on the teaching of foreign languages? Why especially one that investigates the derivation of teaching approaches from linguistic and psychological theories?

From the lay public, who know that there are millions of language teachers throughout the world, the question would elicit a rather puzzled response. So many specialists must certainly draw their practices from well-established scientific findings. Surely such a sophisticated institution as language education, with innumerable departments in universities, schools and colleges, countless publications, journals and yearbooks, does not need the pronouncement of a fledgling doctoral candidate. Moreover, people have known how to teach languages since the building of Babel and it seems somewhat late in the day to be asking basic questions such as: Can we derive language-teaching methods from learning theories, Habit-Formation and Code-Learning Models, to name two? Issues of that kind have no doubt been resolved before starting the academic establishment.

While the question may ring sacrilegious or pointless to the layman's ear, insofar as non-professionals tend to entertain flattering confidence in the infallibility of the specialist's theories, it might appear somewhat academic to the enlightened practitioner. His training as a researcher tells him that, far from being idle, that burning question represents an ever-gaping rift in the lute. He never gets a chance to forget the apparently irreconcilable dichotomy between the exponents of the Audiolingual and Cognitive Approaches, exposed as he is to the fire of their arguments, counter-arguments and lamentations of "deterioration of scholarly discourse." Now and then, the knowledgeable observer

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may even come across the dissident opinion (a sure sign of theoretical prosperity in a field) of a scholarly well-heeled specialist who minimizes the contribution of theorization and wonders whether too much energy is not wasted in sterile basic research.¹

However, most specialists, like Cronbach and Suppes, opt in favor of research with the proviso of lucid vigilance:

[we] wish to make it clear that inquiry can have good or bad consequences for educational practice, introducing fresh ideas or being extrapolated into irrational excesses.²

In the same vein, Bolinger sets firm limits to the contributions of linguistic research, while saluting its legitimacy:

Language teaching is no more linguistics than medicine is chemistry. Yet, language teaching needs linguistics as medicine needs chemistry.³

In fact, even those writers who tend to question the validity of what data we have on the subject are glad that we have data at all.

It is indeed true that there is no lack of data, theories and interpretations claiming that any or all of the methodological, linguistic or psychological components of each learning theory exceed the achievements of others. What makes many of the research findings in language education so inconclusive is the fact that each researcher proves his case, or rejects his opponent's, on grounds that are irrelevant or trivial in terms of another system. Claims of excellence are too often untestable for lack of a common base of reference.

Eventually, we are confronted with a frequent problem of the social sciences: that of choosing between correlational studies which cannot distinguish cause from effect and experimental designs where concomitant

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variables have been controlled to the extent that C for Classroom bears no resemblance to any classroom on earth. It should also be said that the experimental treatments reported in the literature are often of such limited scope in time and comprehensiveness that they can hardly shed any light on the educational process.

Should our hopes then turn themselves to the definitive study that will transcend all sources of error, settle all claims, reconcile the polemicists and map the road for a millenium of enlightened, successful practice? That naive ambition could be forgiven after the first heady successes of a new theory, and it maintains its spell over new users who discover encouraging applications in localized fields. It nevertheless betrays a misunderstanding of the modern approach to scholarly inquiry. Even the most empirically-minded disciplines have to tolerate the coexistence of several theories and, while the possibility of fresh theoretical reversals is never discounted, neither is it deemed a compelling reason to decree a moratorium on research pending the total victory of one orientation. The fact that most astronomers accept the general theory of relativity does not cause them to abandon Newtonian mechanics or to drop research until space-based observation brings confirmation.

Barring the immediate hope for a serendipitous breakthrough, what more could be achieved by another thesis on a heavily-researched topic? Are not psychology, linguistics and language methodology well-established subjects? Is there any need for new contrasts between the theories or models constituting those disciplines?

What is missing is a vertical, one could almost say phylogenic, approach. We need to establish how theories give birth to educational

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approaches, examine the strength of the relationships and the specificity of the claims. In a similar fashion, the phonetician does not content himself with assessing the relatedness of segments on the basis of consonance alone, but requires the commonality of distinctive features. The analysis should check the validity of all components at all stages, as well as the legitimacy of the filiation and the usefulness of the concept. It is, for instance, a waste of time to prove that method M is more powerful than method N, if the former teaches unsound or minimally generalizable linguistics. Conversely, as far as language education is concerned, it avails little that linguistic model A be more adequate than model B, if model A is not translatable into any intellectually honest teaching method.

It should not be ignored that, in the final analysis, foreign-language education is not a purely scientific discipline. As William James said:

Psychology is a science, and teaching is an art; and sciences never generate arts directly out of themselves. An intermediary inventive mind must make the application by using its originality.⁴

The psychological and linguistic components certainly live up to the standards of the sciences of man, but the product can at best be described as a technique (we know that William James could use the word "art" without undue sentimentality). The important thing is to guard against two extremes: the total subordination to a theory that cannot be adjusted to pedagogic circumstances; and the purely tactical response to those variations, a danger to which education is singularly prone.

It is to be foreseen that the problems involved in conducting a continuous evaluation of the process from model to method, although

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never simple in themselves, will be formidably complicated with the passage of the theory/practice interface. Our epistemological structures lend themselves perfectly to the testing of abstract, discrete notions, but the sudden insertion of all human and professional variables at the method level makes the articulation very awkward. Even if the study succeeds in isolating clear-cut independent variables to define each stage of the process, it seems probable that they will be of very different nature at that ultimate level and that some problematic interpretation will have to take place at the divide to prove the continuous identity of the criteria.

The dissertation will endeavor to trace the relationships between theoretical orientations, namely "Habit-Formation" and "Code-Learning" Theories, and two contemporary foreign-language teaching approaches: "Audiolingualism" and "Cognitive Approach."

The problem will first be placed within its historical perspective by an introductory chapter on the development of the disciplines contributing to foreign-language education, and of the concerns which have motivated educational options throughout the centuries. The chapter will emphasize the perennial dominance of two philosophies: the empiricist and the rationalist views. The end of this introduction will bring the reader to the current state of the controversy.

Part I will then focus on the theoretical foundations that fuel that controversy. In its first chapter ("Coexistence of Two Major Theories"), the two models will be identified and contrasted. The status of Contrastive Analysis with respect to the two options will then be examined, as well as the theoretical reasons why it cannot be considered as an alternative to the rational vs. empirical dichotomy.

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Chapter 2 ("Conflicting Claims") will specifically contrast the claims of each orientation with respect to the analogy between first-- and second-language acquisition, the problems of interference and meaningful learning.

Chapter 3 ("Typology of Theoretical Orientations") will be dedicated to the devising of a system of distinctive binary features for the characterization of each theory.

Part II will then study the educational implications of those theoretical foundations. "Criteria of Orthodoxy," (Chapter 4) will survey teaching methods and discuss their relevancy to the orientations previously defined. A system of methodological variables will be elaborated in order to measure the agreement of language-teaching materials with their advertised trends.

"Review of Materials," (Chapter 5) will focus on a sample of textbooks used for the teaching of French as a foreign language in american colleges and universities. Using the variables devised in Chapter 4, the author will endeavor to show the distribution of popular textbooks among the orientations studied and to bring to light the dialectics of theoretical vs. practical criteria in the choice of educational options.

In the "Conclusions," the author will summarize the state of the problem and speculate on its resolution. He will eventually close the dissertation on a plea in favor of some formalization of the eclectic process, along the lines suggested by J. Schwab.⁵

1. See John

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2. Cronbach,
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3. Quoted in
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4. James, Wi

5. Schwab, J
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NOTES TO THE INTRODUCTION

1. See Johnson, Francis C., "The Failure of the Discipline of Linguistics in Language Teaching" in Language Learning, XIX, 1970, pp. 235-244.

Krohn, Robert, "The Role of Linguistics in TEFL Methodology" in Language Learning, XX, 1970, pp. 103-108.

2. Cronbach, Lee J. and Patrick Suppes (eds.), Research for Tomorrow's Schools, Macmillan, 1969, p. 122.
 3. Quoted in Birkmaier, Emma Marie (ed.), Britannica Review of Foreign Language Education, Vol. 1, Encyclopedia Britannica, Inc., Chicago, 1968, p. 4.
 4. James, William, Talks to Teachers on Psychology, Holt, 1920, p. 7.
 5. Schwab, Joseph J., "The Practical: a Language for Curriculum" in School Review 78, November 1969, pp. 1-24.
- Idem, "The Practical: Arts of Eclectic" in School Review, August 1971, pp. 493-542.

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CHANGES IN THEORIES THROUGHOUT THE HISTORY
OF LANGUAGE EDUCATION

We can safely assume that the teaching of foreign languages, such as we understand it today, can freely draw from the well-established funds of linguistics and psychology. A more thorough communication between the disciplines could be contemplated, however, without straining the imagination. Many available avenues of inquiry have remained at the state of theoretical propositions for lack of a fair trial in the classroom, and, conversely, some problems all too familiar to the practitioner have not yet benefited from the full attention of the theorist. This state of affairs is only too likely to arise in situation in which, by tradition, the researching and the implementing arms do not belong to the same body. There are theoretical linguists and psychologists, there are psycholinguists and applied linguists, and there are language teachers. Each category is bound by its particular social and professional requirements and the one end of the scale seldom participates in the training of the other end. This militates in favor of the existence of halfway houses, such as the foreign-language departments of colleges and universities, whose members should be familiar enough with both sides of the problem to be able to mediate between supply and demand, between question and answer.

In spite of these reservations, very few would assert that foreign language teaching today owes nothing to language analysis or learning theories and should not entertain hopes of enrichment through their cultivation. We are, of course, thinking of those practitioners who reflect on their discipline in a rational manner and who keep themselves reasonably informed. According to some authorities,¹ this would not

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represent an impressive section of the profession. One could, however, assume that ill-informed professionals are by no means less dogmatic than the others: their dogmas just happen to be wrong or outmoded. For better or worse, we can thus claim the indebtedness of foreign-language teaching to the parent disciplines.

The question might well be asked of how language teaching fared before there were officially recognized disciplines called psychology and linguistics. This belongs, of course, to the range of false problems, such as, "How did mankind resist extinction through infection long enough to produce Louis Pasteur?"

Few human activities waited on the creation of their theoretical apparatus to come into play. Very effective language instruction has been delivered for longer than could probably be recorded, sometimes based on principles that would, no doubt, amuse the modern specialist or drive him to despair, and sometimes that he would find incredibly germane to his own research interests, after the necessary interpretation. The truth is that, far from being contingent upon the psychological or linguistic findings of this century, language teaching had its own philosophy long before Herbart or Nodier coined the now familiar names of educational psychology or linguistics. Hawkins, writing about the long anteriority of practical gambling lore over the science of mathematical probability, says, "What every soldier of the Legion knew a good bit about from his tesseraï had to wait two thousand years for the literal breakthrough into the camp of the learned ..."²

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LANGUAGE TEACHING IN ANTIQUITY

Western Antiquity

Insofar as linguistics is concerned, the analysts of the past were known as Grammarians. Our own classical heritage (Roman and Greek) is regrettably silent on the subject of how foreign languages were taught, but we know for a fact that numerous interpreters and translators were needed to conduct the commercial, diplomatic and military affairs of far-ranging empires whose interests extended over many cultural and linguistic communities. The fact is dramatized in the story of King Mithridates of Pontus, who, according to Aulus Gellius, could communicate with any of his subjects in any of the more than twenty languages spoken over the kingdom.³

Even though we may not doubt the existence of multilingualism in the past, it is still a temptation to pity that unfortunate language teacher or yore. How could he face a class with nothing better to back up his instruction than that fantastic kind of language lore that passed then for analysis? We all know those bizarre etymologies such as Plato credited Socrates with in the Cratylus, ἄνθρωπο, 'man', from ἀναθρῶν ἃ ὅπωπεν, 'looking up at what he has seen'.⁴

Actually, inordinate publicity given to such aberrations throughout the history of knowledge has contributed to distort the image of linguistic scholarship in the past. Some remarkably modern insights which were achieved at an early date would radically change our views on the development of science, were they only as well-celebrated as the more absurd naïvetés.

References to grammar in Aristotle, as well as the Stoic views on language and the works of the grammarians of the Hellenistic period,

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deserve serious consideration. One of the latter, Dionysius Thrax, c. 100 B.C., can be considered the founder of the European grammatical tradition.⁵

His τέχνη γραμματική covered only Greek phonology and morphology, but, in so doing, established a technical language and a conceptual framework which was going to enjoy favor for more than a millennium. Thrax identified most of the articulatory characteristics used in phonetics, utilized the concept of word class and developed several parts of speech, and defined the lists of nominal and verbal inflections.

Thrax owes his influence upon later grammarians to his Latin continuators, chiefly Priscian (c. 500 A.D.), who extended Téchnē methodology to the description of Latin. The names of parts of speech, cases and tenses which we still use today come from Priscian's calques of Thrax's categories. In addition to the metalanguage of grammar, through Priscian and his medieval followers, Thrax can be credited with the intuition of the paradigm, a pedagogic device that was transmitted to this very century by the Grammar-Translation Method.

If we may be allowed, by virtue of his separation from the mainstream of European thought, to include into antiquity a medieval scholar, we would like to present the work of the "First Grammarian." He was an unknown Icelandic scholar of the twelfth century who wrote the First grammatical Treatise (the name stemming from the position occupied by the essay in the original manuscript, not from any claim to inaugurating a tradition). The most interesting part of his work concerns the devising of an orthographic system suitable for the notation of Icelandic pronunciation. His treatment of the subject (for example, the remark that environment-contingent differences need not be marked separately)

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shows that he viewed his task in a phonological, and not merely phonetic, light.⁶ If this, indeed, constitutes a proof of de facto intuition of the phoneme, the "First Grammarian" would be more modern in his thinking than many spelling reformers of our century who are still ignoring anything above the phonetic stage. His mode of exposition was quite modern too: he submitted a list of minimal pairs differing by one phoneme only, worked into sentences where the contrasts are emphasized in a humorous way, "Mjök eru þeir menn frámer, er eigi skammask at taka mína kona frá mér," 'Those men are brazen indeed, who are not ashamed to take my wife from me.'

Of course, it could be objected that a few brilliant individuals are not sufficient to evidence a stable linguistic tradition. And it is true that the scholar had practically no influence even after he was rediscovered in the nineteenth century (if we disregard the typical Scandinavian obsession for spelling reforms). However, other examples of long-standing traditions can be found.

Eastern Antiquity

India has had noted grammarians for more than 25 centuries. Their excellence, especially in the domain of phonology, is recognized to the point that several specialists do not hesitate to credit the vigorous rebirth of phonetic studies in the West in the nineteenth century to the recent availability of Indian works.

The advance of the Indian phonologists over their discoverers was such that W. S. Allen claims that the modern linguist understands them better and can evaluate them more fairly than the nineteenth-century specialists who brought their writings to the West. He also claims that

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thanks to their careful descriptive methods, we have a better idea of the pronunciation of Vedic Sanskrit than we have of Classical Latin.⁷

Were it still necessary to demonstrate the relevancy of such ancient tradition to modern linguistics, we could cite the following morphological derivation worked out by Paṇini (between 300 and 600 B.C.), according to a set of ordered rules, duly referenced by numbers. The procedure is, of course, superficially similar to the ones established by the generative phonologists more than two thousand years later. Even though it would be tempting to make too much of such a coincidence, the analysis displays a level of explicitness unparalleled in Europe at the time of its discovery, let alone at the time of its composition:

bhū-a	3.12, 3.1.68
bhū-a-t	1.4.99, 3.1.2, 3.2.111, 3.4.78
á-bhū-a-t	6.4.71, 6.1.158
á-bho-a-t	7.3.84
á-bhav-a-t	6.1.78
ábhavat. ⁸	

THE MIDDLE AGES

Of course, some of the examples cited above can constitute a proof that linguistics has always played the role it does today in the direction and inspiration of language education. If indeed modern western scholarship has to defend its claim to originality, it may not reside so much in the opening of new territories of knowledge as in the unique creation of networks for the propagation of this knowledge. Nothing really comparable to the many universities, scholarly associations, publications and libraries that we have today existed anywhere else before the nineteenth century.

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We know enough, however, of what the masters of the past thought and did to realize that their concerns in language education were not so divorced from ours as we might think. In turn, they presented the learning of another language as desirable for social, artistic or philosophical reasons. Even though these objectives appeared at times mutually exclusive to some, each period of the development of our educational history has managed to keep alive at least a modicum of all three, while giving predominance to the one most favored.

The social objective demands that language be regarded as a form of social behavior and a practical means of communication. The artistic objective, however, treats language as a vehicle for creativity, encouraging appreciation of the monuments of the target literature and, occasionally, creative expression in the target language. Lastly, the philosophical objective tends to consider languages a means to a higher-order goal: religious exegesis, moral edification or development of mental faculties.

The ancients were desirous of reaching all these goals: the study of the great authors and grammarians was not neglected, but the foremost interest, at least in Rome, rested with rhetoric. To the Romans, foreign-language education was first of all a key to the exploitation and appreciation of the Greek oratory monuments. The social communication of moral and political thoughts that could best be apprehended in the original language was considered a prerequisite to the formation of the successful and persuasive public speaker. It is thus entirely apposite that one of the few known Roman books on pedagogy is Quintilian's Institutio Oratoria, a rhetoric textbook. The knowledge of Greek was the almost unique source of intellectual distinction and therefore much

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sought. It was also a necessary tool of communication with the local populations in many parts of a large empire, where Latin, after all, was a foreign language more often than not," ... and as any advancement was dependent on a good knowledge of Latin, it too was a necessity for any ambitious provincial."⁹

Whether for urbane conversation, declamation of the Classics, or speech-making, the oral aspect of the language was especially encouraged, as is often the case in periods when social goals become dominant, and when literacy is limited.

Latin, soon a foreign language everywhere, continued its domination over scholarship and teaching in Europe for a long time, but with other objectives in view. During the Middle Ages, the oral dimension of the language became more and more subordinate to the written expression. Latin became almost the only language studied, because it was the official language of the Church. The vernaculars did not yet enjoy much prestige, and they lacked a consistent written form and an appeal large enough for a church that took its claim to universality very seriously. Greek had fallen into bad repute: to its distinctive pagan flavor, the dubious odor of heresy had been added since the 1055 schism: "Graecum est, non legitur." ('Greek, do not read').

The domination of theology and morals over the intellectual life of the period required the use of a fine legalistic language, not the flowery rhetorical vehicle of the ancients. A carefully controlled medium was needed in recordable form: written composition then became the most valued form of linguistic expression. The importance of religious exegesis demanded a rigorous system where rules had to be respected for fear of intellectual anarchy. The need for elegant persuasiveness

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The Prescriptivists

On the other hand, many scholars viewed with concern the erosion of what they considered to be "correct Latin" by the latent substratal forces of the vernaculars. Their action took the form of "orthographiae," prescriptive lists that apprised the delinquents of what they were supposed to say and write instead of what came naturally to them. Of course, the endeavor was doomed (as are some similar ventures of modern purists: the 'Franglais' contemnors in France, the Riksmål and Landsmaal nostalgics in Norway, for instance), but it contributed to fostering a certain adulation for the 'proper way' in the public mind, and a certain distrust for linguistic self-reliance.

The "Modistae"

Another important contribution of the Middle Ages to the teaching of languages, (even though it encompasses much more than purely utilitarian pedagogy), was the output of numerous grammatical treatises on the Latin language, usually referred to as "Speculative Grammar." The authors of these treatises, (often entitled "De Modis Significandi") are known as the Modistae. They exemplify a somewhat new and more principled attitude towards language study, a philosophical approach that took meaning and the duality of world and language into consideration.¹⁰ Thus was inaugurated another lasting trend: in addition to the "black box," pragmatic orthographiae that presented valid models to be imitated without recourse to explanations of the whys and hows, the modistic school offered an alternative view of language learning as a synthetic mental activity

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THE RENAISSANCE

All reversals of academic and intellectual priorities were reflected in the avatars of foreign-language education. The social and spiritual changes brought by the Renaissance did not fail to leave their mark on the field.

The desire to renew contact with the antique heritage revived some of the language traditions of the past, as well as effectively smothered the memory of the great achievements of the preceding period.

The birth of a freer spirit of religious exegesis encouraged the study not only of Latin, but also of Greek and Hebrew: the scholar of the Renaissance liked to think of himself as "homo trilinguis."¹¹ Arabic itself benefited from its kinship with Hebrew and its historical position as the depository of many Greek scientific and philosophical traditions. Incidentally, the impact of Arabic grammatical scholarship on the Renaissance was quite comparable to the one of Indian linguistics on the world of the nineteenth century.¹²

While scholarship in the 'classical' languages was maintained and strengthened, the new interest in scriptural translation brought new respectability to the vernaculars, a trend that had already been set by precursors such as Dante in the late Middle Ages, but that flowered notably in the Renaissance period. The first grammars of French, Italian, Polish and Old Church Slavonic were published.¹³ Numerous dictionaries were composed, such as J. Palsgrave's L'esclaircissement de la langue françoise (1530), which is viewed as the first monument of the systematic study of modern foreign languages in England. This was also the time

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for many conversation books, such as Caxton's Dialogues dedicated to the communicative needs of the travelling businessman.¹⁴

Pedagogical concerns were not excluded from the Renaissance view of foreign-language education. Consistent with its spirit of free analysis and independence with respect to formal rules, the period seems to have favored inductive methods. A disciple of Erasmus is quoted as saying, "The authority of a grammarian is, in itself, worth nothing. It is clear that the real discipline of grammar was evolved only by the observation of the most cultured orators, historians, poets and other writers worthy of study."¹⁵ Most educators, however, held more conservative views, such as were later expressed in Comenius' precepts:

XI - All things are taught and learned through examples, precepts and exercises.

XII - The exemplar should always come first, the precept should always follow, and imitation should always be insisted on."¹⁶

THE AGE OF CLASSICISM

Such teaching principles are, of course, very consonant with the tenets of the Habit-Formation Theory and never lost their grasp upon the profession. Even the subsequent, so-called 'classical' centuries retained their respect for the imitation of prestigious examples, in spite of their ideological penchant toward the predominance of deductive methods.

The Philosophical Languages

The seventeenth and eighteenth centuries witnessed the decline of Renaissance rhetorics in favor of logic, following and accompanying the great Cartesian revolution of philosophy. Although it is not directly

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of the realm of education, an interesting fact of the period is the attempted creation of several artificial (and consequently universal) languages based upon entirely regular and explicit principles. Mersenne in France, Leibniz in Germany, Bacon and singularly Wilkins in England published elaborate proposals on the topic.¹⁷ No matter how speculative those 'philosophical languages' were, it cannot be denied that the post-Reformation centuries viewed and taught languages in a way that was very much indebted to the desire for rational formalization embodied in them. At the end of the eighteenth century, French philosopher Condillac posited that language depended on thought, and thought on logic, and that therefore, language was logic.¹⁸ There was no reason to think that natural languages should be less rational or more arbitrary than the philosophical languages.

The Rational Grammars

A popular title for grammars was then 'grammaire raisonnée' or 'general grammar'. This reveals the position as well as the objectives of language instruction advocated in them: desire to display the unity of grammar underlying the several natural languages while offering language study as a means to improve judgment and reasoning. The most famous of these grammars was probably La Grammaire de Port-Royal, which enjoyed uninterrupted success for more than a century and was later celebrated by Noam Chomsky as a brilliant precursor of transformational grammar.¹⁹

Foremost among the innovations of post-Renaissance grammarians is the recourse to the notion of 'universal'. Much more attention than previously was turned to the vernaculars; comparisons were made among them as well as with the classical languages. Considerable regularity

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was found not only within the organization of each language, but also across languages. Hence arose the theory that logic is the archuniversal underlying all languages, reflected in the almost identical organizations of various grammars.

Admittedly, the theory and its proof were somewhat vitiated ab ovo by the fact that the corpus of languages considered by the general grammarians was so limited and, as can be pointed out with perfect hindsight, closely interrelated anyway. Too much, however, may have been made by modern commentators of the well-publicized tenet that all languages can and should be analyzed in terms of categories devised for the description of Latin. One target of this criticism was, for instance, the fact that the Port-Royal scholars insisted upon teaching six nominal cases in Greek as in Latin, while only five are attested in the former language. There is evidence, however, that the authors of 'grammaires raisonnées' had less naive claims to universality than the predictable analogies of the Indo-European family. Robin Lakoff expresses this opinion on La Nouvelle méthode pour facilement et en peu de temps comprendre la langue latine, by C. Lancelot (one of the contributors to La Grammaire Générale et Raisonnée):

[...] it was L's contention that Latin shared numerous traits with French and other languages--by no means exclusively those due to genetic relationship, but rather traits due to the logical mind common to all men--and that by making use of those logical similarities one could teach Latin better than by forcing students to memorize sentences ..."20

Even though the seventeenth-century linguists may be responsible for some extremely robust and popular misconceptions, such as the supremely logical nature of Latin and the supreme clarity of French,

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The Classical-Humanist Model and the Grammar-Translation Method

The idea of a rule-governed grammar, based on the Latin pattern and obeying logical rationales was singularly germane to the educational climate of the period: the formalization of language sought in grammars corresponded to the formalism of the Classical-Humanist Model.

The most typical instance of the Model is, of course, its adoption by the Jesuits for their schools. It should be said, however, that very similar applications were in existence everywhere in the western world, regardless of religious affiliation and, in many cases, at a much later date than the Counter-Reformation. This writer has very clear recollections of pursuing studies in the classical languages (and, should the truth be known, English!) in the middle of the twentieth century in a French public school, along the lines of the purest Jesuit model, under teachers to whom the very thought of the Society of Jesus was anathema.

The great success of the Classical-Humanist Model is probably due to the novelty of a completely explicit method, as described in the Ratio Studiorum, published as early as 1586. As far as the study of languages (classical and modern were not treated much differently) was concerned, the students were taught a precise set of grammatical rules, labelled and exemplified with prestigious literary examples. After this knowledge had been thoroughly drilled, reviewed and evaluated ("the most important aspect of Jesuit teaching was the method for securing overlapping review"²¹), graduated readers were studied and translated into the vernacular (Versio), partly to evaluate the correct application of the rules and partly to develop translation skills as an objective per se.

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Translation was valued as a prerequisite to the writing of essays and also for its own sake, as the common practice of considering Thema (a translation from the vernacular into the target language) as the highest achievement in the curriculum demonstrates. Now, the exercise could certainly not be defended on pragmatic grounds (professional translators almost always translate into their native language), nor could it be deemed more demonstrative of language command than the Latin essay, still the main scholarly medium. Its great appeal must then have resided in its constituting both the rationale for and the reinforcement of rule mastery. Implicit in this emphasis on translation is the dominance of meaning and the presupposition of some rational universals common to the languages in use. It also constitutes the best example of a teaching method governed by the linguistics of the times.

As a matter of fact, the Classical-Humanist Method has survived into the twentieth century under the name of Grammar-Translation Method. Admittedly, a cursory survey of modern educational literature would be hard put to find any advocacy of the method: the critical controversy seems to rage between the Habit-Formation people and exponents of more recent methods. But we have to face the fact that the majority of contemporary language instructors have learned the languages they teach through some form of Grammar-Translation Method. We also have to realize that, even though what is technically known as "the Language Course" is usually conducted with implicit horror at the excesses of Grammar-Translation, every other aspect of foreign studies, such as "literature" and even "composition," still has frequent recourse to rules and translation.

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THE NINETEENTH CENTURY

After such a heavy emphasis on the linguistics of the written word and the logical character of natural languages, it is rather surprising that the impressive achievements of nineteenth-century linguistics did not leave more of an imprint upon teaching methods. If we agree that the discipline of historical linguistics was the salient theoretical event in the philological world of the nineteenth century, why did so little of it pass into methodology, when in fact it could have so nicely enriched the classical model? If such a question is to be answered, it can only be through a change of emphasis.

As was mentioned earlier, a majority of educators were thoroughly satisfied with the Classical-Humanist Model and its intellectual and pedagogic apparatus. On the other hand, after the onset of the tradition, the abstract and theoretical assumptions of the method became less and less visible, thus assuaging the professional reluctance with respect to speculative constructs. Moreover, it enjoyed the blessings of educators in other disciplines, thanks to its vaunted promises of transfer to other abilities, such as mathematical or scientific skills, and it did operate quite satisfactorily for the study of the written language. In effect, the model continued to dominate language instruction for another hundred years, until it was superseded, officially but perhaps not in fact, by rival models at the beginning of the next century.

The Age of Nature

The dissenters were not interested in bringing more linguistics into foreign-language methodology, because they were listening to another drummer.

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"We should like each pupil to make his own observations before reading ours and come to ordered knowledge by himself, rather than learning it." This quotation from Jean-Jacques Rousseau's Emile was the opening statement in Lemare's 1819 Cours de Langue Latine.²² Lemare did not enjoy the recognition that was given to later advocates of the Natural Method, probably because their interests went to the modern rather than classical languages, and also because his transitional method did not completely abandon translation. Lemare was nevertheless the first to evidence Rousseau's seminal influence upon language studies.

The Natural Method

While not an educator himself, Rousseau provided the Natural Method with the rationale it needed: the assumption that nature, not intellectual analysis, is the best teacher for all subjects. Broader implications of his philosophy have been the subject of a continuing drama that is not completely played out in the social, political and moral world. The world of language education is still assessing whether there are any good reasons why a new language should not be learned differently than the mother tongue. Pestalozzi can be added to Rousseau as a sponsor for the Natural Method, since all his teaching emphasized demonstration by the teacher. He advocated complete reliance on oral-aural training in the first steps of learning a new language.

Several points of foreign-language educational philosophy were then formulated: primacy of the spoken language; emphasis on first-acquisition simulation (mimicry of parental or magisterial modeling); and generalization from examples without recourse to grammatical formalism.

The Natural Method called for the end of language analysis in the classroom. In 1830, J. Jacotot in France and J. Payne in England^{23,24}

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rejected translation as irrelevant and claimed that no grammatical explanation was needed: the student could be trusted to handle the language by himself, in the same way as he did his mother tongue. Even earlier, in the United States, N. G. Dufief²⁵ placed conversation at the top of the methodological hierarchy. By the 1860's, conversation was considered by most theorists as the most legitimate teaching device; which does not mean, by far, that it was the most common classroom practice, but the philosophical ground work for a change of emphasis had been laid.

Of course, the fate of the Natural Method was that which usually befalls early harbingers of change: after incipient public enthusiasm for a novel avenue that promises liberation from some of the abusive attributes associated with the traditional model, there comes the realization that the newcomer does not deliver some of the advantageous products of the older order. As a matter of fact, the Natural Method shared some of the failings of its sponsors. It had their generous vitality and exciting sentimental appeal, but it was definitely lacking in scientific bases such as they were understood then. It did not have any linguistic justification to offer and its psychological rationale had not yet been discovered. All this marred the Natural Method's efficiency and the next school was able to take up the same positions as if they were completely new. By then, however, they were consonant with the current scientific dogmas.

The Direct Method

The Direct Method was much more of a success. Originated by P. Passy and W. Viëtor in the last decades of the nineteenth century, it

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began on the same enthusiastic terms as the Natural Method,²⁶ but it had the scientific substratum that the Natural Method so sorely lacked.

First, it could draw upon the fund of Herbart's educational psychology, formulated in the 1830's.²⁷ Since language teaching is a matter of organizing perception, teaching should consist of observation lessons (Ausschauunterricht), giving the student direct exposure to the "real language." Each lesson of the Direct Method followed Herbart's five steps: preparation (review of previous material), presentation (imparting of new facts), association (of current and current items), systematization (recapitulation of new work in context) and application (practice).

It can easily be seen how this new formalism could win the respect of former "Classical-Humanists": gone was that suspicion of hedonism of the Natural Method! The Direct Method was still the approved method of conducting a language class when this writer was teaching high school in France, where application of the Direct Method was demanded of all teachers with a relish for timing that would have warmed Herbart's Prussian heart, while students were rated in state examinations solely made of translations!

The Direct Method has no more recourse to rules as such than the Natural Method, but, consistent with Herbart's theory of apperceptive masses, it presents the students with instances of utterances in use. This tied in with the views of another posthumous sponsor, Wilhelm von Humboldt. He postulated that all speakers possess innere Sprachform (what modern psychologists would call Gestalt), which enable them to form utterances out of those speech instances they are exposed to. This matrix could be acquired inductively by a foreign learner and, in Humboldt's words, contribute to his "Selbstschöpfung."

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A further improvement of the Direct Method was its recognition of phonetics as a teaching aid. 1886, the year that saw the publication of Viëtor's manifesto, also witnessed the creation of the International Phonetic Association, whose doctrines, broadcast in Le Maître Phonétique, still have a strong influence upon European teaching. Passy, himself a phonetician, recommended that each teacher should know phonetics even though he may not want to teach his students its principles.²⁸ Of course, many of his followers did not have the same scruples: one of the most sensible attacks against the Direct Method in the 1940's and 1950's was directed at teachers who spent in some cases as long as the whole first year training their students in phonetic transcription exclusively. Such an exaggeration of the Method seemed to defeat its very spirit.

The Direct Method was a success, partially because it was acceptable both to the psychology and the linguistics of its times and also because it afforded a much better structured classroom practice than the well-meaning but amorphous Natural Method.

THE TWENTIETH CENTURY

The First Two-Thirds of the Century

Another asset of the Direct Method was its ability to incorporate future scientific developments and accommodate them as if they had been foreseen from the inception. This was true to such an extent that it may be difficult to tell where the Direct Method stops and where "Audio-lingual" teaching begins.

In 1915, F. de Saussure's Cours de Linguistique Générale²⁹ was published. The basic tenets of the structuralist school of linguistics

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will be discussed later on, but its emphasis on oral expression as the genuine language made it an immediate favorite with the Direct Methodists.

In the psychological domain, twentieth-century behaviorism was perfectly amenable to Direct Methodology. It gave scientific status to the instructional methods recommended from Pestalozzi on, and could fit within the schema of the Herbartian system. Learning could now be legitimately described as the demonstrable product of conditioning and generalization. Teaching a language could now be viewed as the process of conditioning students with oral stimuli in order to elicit oral responses.

Where previously the Direct Methodists knew only by their own enthusiasm that their system was right, different specialists with impeccable credentials now proved it to them. The Direct Method found itself endowed with a consistent linguistic component and an educational psychology, while all it inherited from the Natural Method was mistrust for pedagogy and a Thoreauvian philosophy of simplicity.

Very soon, the Direct Method passed from the role of radical challenger to the one of scientifically legitimized establishment: the big guns of knowledge had changed sides in the controversy. Where previously we had rather perfunctory and intermittent skirmishes between stately academics and wild-eyed reformists, we had now a ferocious last-ditch *mélée* between aging pedagogues and self-assured scientists in lab coats.

We must carefully distinguish, however, between the picture presented by professional literature and the reality of twentieth-century language class. One should not naively imagine that teachers converted overnight to the new orthodoxy, anymore than one should accept at face value their public support of the new method. Many practitioners continued their instruction according to the only model they knew and saved

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their enthusiasm for the Direct Method strictly for the benefit of parents' associations and schoolboard officials. However, the official position was in favor of the Direct Method, and this was hardly empty support, since, by the beginning of the twentieth century, the overwhelming majority of teachers had become de facto state employees and were held to some degree of methodological conformity by the massive arguments of promotion and tenure.

The fourth decade of the century was marked, on the foreign-language education front, by the sudden interest shown by the U.S. Army in language training. First, in 1942, the American Council of Learned Societies with assistance of the Rockefeller Foundation set up intensive language programs on eighteen campuses, concentrating on those little-taught languages that could be of use to intelligence personnel. A year later, the Army Specialized Training Program had become a reality and operated programs in nineteen different languages.³⁰

The prerequisites set by the Army suited the theorists to perfection. Obviously, the combat situation placed a heavier emphasis on oral communication than on reading and writing. The Direct Method was to be employed in small classes during many contact-hours. The teachers were to be native speakers; and there would be little reference to grammar, if only because there were very often no English grammar texts for the languages taught.

An idea of how providential the Direct Method was in its own times can be suggested by the fact that many of the twentieth-century linguists, who approved of the Method's position, happened to specialize in those little-taught languages that the Army was interested in, and could be used to supervise the native informants and select what should be taught.

Due to their quality, and also to a few extraneous circumstances such as liberal funding, strict selection of students and extrinsic motivation (no army in the world is ready to jeopardize the expensive training of a Polynesian language specialist by giving him an infantry job on some Pacific island!), the Army Language Programs were a roaring success. The prestige of the Direct Method was impressively boosted by this contact with a national wartime service, its facilities and its money. For some time after World War II, opposition to the Direct Method was not only considered unprincipled, but almost unpatriotic.

The return of peace did not depress the demand for foreign languages. Owing to international tensions, scientific rivalry between the Western and Eastern blocks and the information explosion, there have been ample rationales for foreign-language studies. The "hawks" needed to know what dark plots were being hatched by the opposition, and the "doves" saw them as a royal road to international understanding and détente.

The Direct Method continued to enjoy the patronage of governmental agencies. In France, CREDIF, (Centre de Recherche, d'Enseignement et de Diffusion du Français), uses exclusively materials based on the Direct Method and devised by Professor P. Gubérina under the name of Audio-visual, Global and Structural Method.³¹

Toward the middle of the twentieth century, the Direct Method redefined itself as the "Audiolingual Method" and its rationales as the "Habit-Formation Theory." It has not failed to ride the wave of technological expansion, accommodating with its usual catholicism the tape recorder, and teaching machine, the electronic and optical media, as well as every conceivable form of sound/picture commercial packaging. It has been represented in every educational experimental development,

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from individualization to computer assistance. By and large, it can be safely said that the Direct Method still holds practical sway over the language classrooms of the Western world under the name of Audiolingual Method.

The Decline of Audiolingualism

No regime can hope to hold power forever. There are signs that the Audiolingual Method no longer enjoys the prestige it has known erstwhile. To be fair, we must not suppress the fact that some educators never adhered to the official enthusiasm about the Habit-Formation Theory. Some were traditional "irredentists," who refused new-fangled ideas. Some had very serious philosophical objections to what they recognized as the fundamentally anti-intellectual orientation of the Method. Such was the case with Michael West in England, who made it his mission in life to battle with the Audiolingual position. His own views (famous at one time in Europe under the name of The New Method) favored the teaching of reading first and accused the Direct Method of substituting the priorities of analysis for those of learning.³² In France, the same crusade was led by Dr. Cappellovicci. In the United States, Lambert cautioned against the dangers of some of the Habit-Formation rationales, namely that pattern drill satiation can cause as much interference as the more traditional Grammar-Translation Method.³³ The Soviet educators, according to Belyayev, hold the inductive methods in suspicion:

The distinctive characteristic of the Soviet Method of teaching foreign languages is considered to be the principle of consciousness, which requires that the pupils have a thorough understanding of the material assimilated. It has been proven that the conscious assimilation of any school subject is more effective than the mechanical assimilation that takes place when students learn material by rote through frequent repetition.³⁴

These objections by no means represent a general desire to do away with the Audiolingual Method, but they may crystallize some of the reservations many practitioners have about it.

The fact is that many of the scientific underpinnings of the Direct Method do not sound as iron-clad today as they once did. Gestalt and cognitive psychology have suggested that the behavioristic theories of learning cannot account for all we know of human capabilities. Most of Audiolingual methodology, such as the pattern drill, for example, rests on educational and linguistic philosophies that completely disregard the operation of covert thought processes during the learning act. By showing the existence of results that could not be accounted for without such processes, cognitive psychology has, by the same token, demonstrated the need for an alternative methodology beyond, or apart from, Audiolingual methods.

In linguistics too, some form of return to rational concerns has made its presence felt. For a long time the linguistic achievements of the seventeenth-century 'General Grammarians' have lain in disrepute, discredited by the scorn of modern linguists who claimed that any theory based on such a limited sample of languages was bound to bear only spurious fruit. By the end of the nineteenth century, the French Académie des Sciences had decided to disregard any communication concerning an alleged universality of natural languages.

It cannot be passed off as a coincidence that a great modern exponent of a deductive theory of language, Noam Chomsky, wrote a book on Cartesian Linguistics,³⁵ thus paying tribute to the seventeenth-century predecessors of his grammar. Chomsky's transformational grammar is a mentalistic theory of language which claims to offer a model of what

knowledge a human being needs to have in order to be endowed with a creative language capability (that is, without being limited to the repetition of previously encountered utterances). With due reference to von Humboldt,³⁶ it speculates that each speaker possesses in his mind an array of basic shapes named "deep structures," from which actually observed language ("surface structure") is derived according to processes that are formalizable insofar as they are linguistic. Chomsky states that "...the grammar of a language must contain a system of rules that characterizes deep and surface structures and the transformational relations between them ..."³⁷ It is evident that a mentalistic theory must have something to say about language in general, besides offering a workable model for specific natural languages. Transformational grammar thus looks for rules applicable to all languages and proposes a theory of the universals of language.

It can be seen that transformational grammar boldly echoes some of the claims of the General Grammars, but this time with a more complete set of languages to draw from. This improvement is not enough to satisfy its opponents, to bridge the enormous conceptual gap between scientific positivism (the Habit-Formation Theory) and a rationalist position (soon dubbed Code-Learning Theory by Carroll³⁸).

Once more the battle is joined between two philosophical positions, as the case has been throughout the history of language education. The empiricist school of thought has dominated during those periods that especially valued social communication and tried to foster it through inductive teaching: the classical era, the Renaissance, the end of the nineteenth and first half of the twentieth century. The rationalist school has prevailed in those times when language education was

particularly valued for its educational and moral benefits and considered deductive teaching the most appropriate instructional format, such as during the Middle Ages, the seventeenth, eighteenth and the beginning of the nineteenth centuries. Kelly presents this analysis in diagrammatic form.³⁹

Era	Teaching	
	Inductive	Deductive
Antiquity	X	X
Medieval		X
Renaissance	X	X
XVII/XVIII/XIXth		X
XIX/XXth	X	X

While this diagram does not attempt to hide the fact that the deductive teaching is never completely absent from the curriculum, it assumes that where inductive teaching is present, it is dominant. What it does not attempt to predict is whether the remaining half of the twentieth century will return to a deductive, rationalist approach. At this point in this work, it would obviously be premature to take a position on this. The methodological applications of transformational grammar are not known well enough to permit a definite statement yet. However, it is now clear that a controversy is engaged and that it will have a deep influence on the future of language education, either by completely vindicating one of the competing theories or by promoting the stars of a compromise position.

NOTES TO CHANGES THROUGH THE HISTORY
OF FOREIGN-LANGUAGE EDUCATION

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PART I
THEORETICAL FOUNDATIONS

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CHAPTER I

COEXISTENCE OF TWO MAJOR THEORIES

This brief look at the history of language education, however superficial and, no doubt, biased, cannot hide the truth that in a field in constant turmoil and reexamination, very few "advances" can be considered definitive. Each new position appears miraculously convincing to its contemporaries because it is so well attuned to the leading concerns of the period. Once the spirit of the time has changed, another competitor will arise to satisfy the newer order more fully and the old dogma will lose its followers. In The Influence of Darwinism on Philosophy, John Dewey wrote:

... intellectual progress usually occurs through sheer abandonment of questions with both of the alternatives they assume--an abandonment that results from their decreasing vitality and a change of urgent interest. We do not solve them: we get over them. Old questions are solved by disappearing, evaporating, while new questions corresponding to the changed attitude of endeavor and preference take their place.¹

Some trends, however, seem to endure the test of time and will presumably continue to do so. In one form or another, linguistics and psychology have dominated the field of language education for the best part of the modern period and no sign of wholehearted rejection is shown by the majority of current educators. It is a safe assumption that, whatever form the educational options of the future may take, they will still upon psycholinguistic arguments to insure their establishment and combat their opponents.

THE BASIC DICHOTOMY

Another trend of long standing throughout the life of language education has been the recurrent oscillation between two poles of attraction. The one is a rational, centralist approach which endeavors to unravel the workings of a well-hidden system, and the other a pragmatic, peripheralist line of attack that prefers to leave mechanisms to their obscurity provided the overall communicative effect can be achieved. It is precisely along those lines that current psycholinguistics is making its bid to ideologize the field of foreign-language education.

There is indeed a large scale of different concerns and different methods in today's profession, but where ideological direction is involved, two major schools are eminently visible: empirical and rational. Each approach distinguishes itself from the other by a few basic assertions which address themselves primarily to theories of learning and language acquisition.

The "Habit-Formation Approach"

The Habit-Formation Theory is the present scion of the pragmatic branch of language learning. Its methodological sources can be found in a reaction against the time-honored practices of the Grammar-Translation Method. Another name by which the theory goes today, "Audiolingual," demonstrates by what the system of rules and vocabulary lists of the defunct school was to be replaced: modeling of primarily auditory examples to achieve a valid simulation of the foreign speech.

In contrast to its predecessors, the Natural and Direct Methods, the Habit-Formation Theory can cite the support of twentieth-century linguistics. From their field work, the modern descriptive linguists

brought the concept that formal grammatical analysis was useless to the language learner:

The command of a language is not a matter of knowledge: the speakers are quite unable to describe the habits which make up their language. The command of a language is a matter of practice [...] Language learning is overlearning: anything else is of no use.²

The influence of experimental psychology on this statement by Leonard Bloomfield, the best-known American structuralist, is unmistakable. Given a well-defined subject matter (actual speech as used by native speakers) by structural linguists, the Habit-Formation School still had to find a psychological sponsor for its Audiolingual model.

At the turn of the century, psychology, as well as other sciences of man, was still reassessing its position with respect to Darwin's epochal Origin of Species. One speculation in the book was especially tempting to psychologists, to wit that there may be a continuity between the human and animal minds. Endorsement of this assumption would in effect bridge the gap between experimental psychology and the study of human learning: if the results of well-controlled experiments could be extended without impropriety to man, there was no longer need for nuisance variable-fraught introspection, and description of learning could be engaged in on purely objective terms.

Pavlov's experiments on classical conditioning and, singularly, Thorndike's statement of the law of effect (if an act is followed by a satisfying state of affairs, the probability of its recurrence will increase) give the impetus for a new method in psychology: the S - R (Stimulus - Response) paradigm. Promptly baptized behaviorism by Watson, the new school translated the study of learning into that of the

connection between observable behaviors, rather than of those unobservable inner processes which may (or may not) preside over it.

Different aspects of the theory were in turn emphasized by theorists, and they were eventually to leave their mark on Habit-Formation.

Guthrie's contiguous conditioning stressed the contiguity of response and stimulus rather than reinforcement. This view finds its consequence in the modern insistence on immediate feedback. Hull's systematic drive-reduction gives a rationale for reinforcement as a means to decrease ungratified need. Hull also coined the term "Habit-Formation" while referring to hierarchies of responses grouped together, and elicited together in "habit families." Hence the Audiolingual emphasis on organization of materials.

Skinner's operant conditioning reestablishes response and reinforcement as the basic behavioristic concepts. His contention is that the organism tends to repeat the response occurring at the time of reinforcement. The principle leaves little room for the nature of the stimulus and is, consequently, extremely flexible and general. Skinner did not hesitate to extend its applications to the realm of verbal behavior without any reference to such mentalistic variables as "meaning" or "motivation." The behaviorist's view of learning was enthusiastically received by the founders of the Audiolingual School.

Once assured that language was indeed all behavior, as held by books, the behaviorist could bring to bear all the power of his works on operant conditioning in favor of the Habit-Formation Theory:³

The single paramount fact about language learning is that it concerns, not problem solving, but the formation and performance of habits [...] The acquisition of non-thoughtful response is the very core of successful language learning.⁴

According to Chastain,⁵ the double allegiance to linguistic structuralism and psychological behaviorism allowed the Habit-Formation Approach to hold the following five basic tenets:

1. The objective is to replicate the ability of the native speaker to handle his language without recourse to analysis.
2. The target language shall be taught in isolation, in order to avoid interferences from the native language.
3. The language shall be presented under the form of stimulus-response associations in dialogues and pattern drills.
4. Language structures shall be presented inductively. Grammatical generalizations will be introduced, if at all, only after the pattern has been established through practice and reinforcement.
5. The "four skills" shall be developed in the order of their "natural sequence": listening--speaking--reading--writing. Oral skills are to be preponderant.

The consequences of this educational philosophy are far-ranging. It may be appropriate to analyze them in terms of the social conditions of the period when Audiolingualism triumphed, in order to explain its appeal.

Across the world, education constitutes a virtual state monopoly with democratic objectives. After the World Wars, and especially during the fitful peaces that followed them, governments placed high value on mass instruction in languages. The emphasis passed from philologic studies for the "gifted" and the literarily-inclined to universal practical proficiency for the masses of technologically-minded citizens. Audiolingualism proposed a view of the learner as a respondent in which the individual references of aptitude and interest are minimal. Also,

the emphasis of Audiolingualism on speech presented in situation displaced the role of the instructor as the main source of modeling and encouraged the introduction of the "media" into the instructional relationship.

These rationales had three logical consequences, all of which found enthusiastic responses in the modern world:

- Unlike the somewhat idiosyncratic "Renaissance man" necessary for the successful delivery of Grammar-Translation instruction, the Audio-lingual teacher, as a mere manager of reinforcement, could be trained en masse by teachers' colleges and normal schools.

- In Audiolingualism, with learner and teacher parameters depressed to a low profile, subject matter reigns supreme. The approach was found to lend itself admirably to the development of linear programmed materials.⁶

- Even though the approach is "not necessarily associated with modern technology,"⁷ in the popular conscience it does enjoy the prestige of a mechanical art. All kinds of principally auditory but also visual products were commercialized as adjuvants to the Audiolingual methodology, and the language laboratory (the name is either a tribute to psychology or a badge of "scientifism") became an all but obligatory locus of instruction.

In the minds of many rank and file practitioners of the profession, Audiolingualism is the method founded in science.⁸ This is, of course, another illusion, insofar as in the course of the last decade psychology and, to an even greater extent, linguistics have moved in directions that lend no support to Audiolingualism. But it cannot be denied that Audio-lingual rationales are particularly consonant with the spirit of nineteenth

century positivism, which may be the only kind of scientific exposure a "literarily-oriented" professional group ever experienced. The radically different philosophical nature of the Habit-Formation Theory makes it at the same time easy to contrast and difficult to compare with its main contender.

The Code-Learning Approach

During the last decade, the field of applied linguistics has undergone many changes. The Code-Learning School, an alliance of cognitive psychology and generative grammar, seems to have secured a major foothold in the field and to be recognized, at least, as a legitimate adversary.⁹

In spite of its recent formulation and apparent role as a challenger, the Code-Learning Approach is heir to an even longer tradition than structural behaviorism (Habit-Formation Approach) since it combines respect for rationalist scholarship with modern psychological and linguistic hypotheses.¹⁰

The linguistic component of the Code-Learning Approach makes use of Chomsky's transformational grammar.¹¹ The following would represent some of its typical assumptions.

The use of rules allows a speaker to generate an infinite variety of well-formed sentences. The speaker will use only a limited number of those sentences (Performance), out of the total number he could formulate (Competence). The speaker's intuition will help him to distinguish between those sentences that convey the same information and those that do not. Sentences representing the same meaning differ in their surface structure, but they can all be shown to derive through transformational rules from a unique deep structure. The child has an innate ability to learn language (to generate deep structures) from the surface corpus to

which he is exposed. There are universal elements common to the grammars of **all** natural languages.

Cognitive psychology is a mentalistic approach to the phenomenon of human learning. As far as its application to language learning is concerned, it can be viewed as an informal synthesis of Gestalt theory,¹² Bruner's coding system¹³ and Ausubel's theory of meaningful verbal learning.¹⁴ In contrast to the behavioristic view of language learning as a basically simple task, easily broken into minimal acts of conditioning ("More complicated behaviors, including the learning of language meanings, also are described by conditioning"¹⁵), cognitive psychology recognizes the scope of the endeavor and demands the mobilization of more intricate mechanisms: "The acquisition of large bodies of knowledge is simply impossible in the absence of meaningful learning."¹⁶ Learning becomes the acquisition, organization and storage of knowledge in such way that it becomes an active part of the learner's cognitive structure. This seems consonant enough with a view of language as creative, rule-governed behavior.

Chastain suggests the following five basic trends for the Code-Learning Approach, based upon its psychological and linguistic assumptions:¹⁷

1. The objective of foreign-language learning is to replicate the abilities of the native speaker in that the learner has internalized the grammar: he can be creative with the language within the constraints of meaningfulness and grammaticality.

2. The teaching must proceed from competence to performance. The learner must assimilate the underlying system of the language before he can perform.

3. The teachers and textual materials must introduce situations that promote the creative use of the language by the learner, who goes from thought to performance by means of competence.

4. Since internalization of the grammar is essential, the learner should know its rules. It is the system which must be acquired, not specific instances of language.

5. Learning should be meaningful. The learner should be allowed to relate what he is learning to what he already knows (his own language, his writing system, his reading ability, and so forth). A variety of strategies should be offered to the learner (oral, written), regardless of any "natural sequence" of skills.

The Code-Learning Approach consecrates a return to a less technologically oriented instruction, where meaning and reflection play a more important role than with the Habit-Formation Approach. While it is true that the educational philosophy behind this option is much more in keeping with the liberal goals of the traditional school (recourse to thought, implantation of a seminal core of knowledge to be later developed by the learner at will) than the other alternatives, it cannot be denied that the pedagogical implications of the theory call for a drastic redirection of what has come to be considered the normal language classroom. Hence the specious, but superficially tempting argument, that the Code-Learning proponents advocate the return to the Grammar-Translation System. Another serious obstacle in the way of a fair evaluation of the educational merits of both theories is the difficulty of comparing a well-heeled establishment, rich in official endorsements and all kinds of specific classroom materials and programs, with one whose riches are more scholarly than methodological.¹⁸

As long as educational applications of the theory have not hit the classrooms in force, it will be hard to tell whether the Code-Learning Approach constitutes a viable avenue for language learning. There are signs, however, of a growing acceptance, whether justified or not, within the profession. One such sign can be read in the forewords or prefaces to many foreign-language textbooks. Even though few textbooks actually subscribe to all of the five points listed supra, it seems that more and more authors sense that such amount of "cognitive coloring" as is in the air is expected of them. Such quotes as, "Thinking in a foreign language, of course, does not erase thinking in your native language [...]. This is entirely normal,"¹⁹ in the preface to a 1974 French textbook would have appeared quite heretical ten years ago. The same exercises offered by the 1965 and 1971 editions of the same textbook are respectively presented as pattern drills to be overlearned²⁰ and as exercises in language creativity!²¹ The fact that the exercises are identical does not detract from the point that a knowledgeable professional has felt that the educational market was now ready for Code-Learning innovations. This bodes well for the introduction of real Code-Learning programs in the near future.

SIGNS OF DETENTE

The coexistence of two major theories, Habit-Formation and Code-Learning, could create the impression that the field is utterly polarized around two mutually exclusive alternatives. Of course, it looks that way to him who is engaged in the controversy, and the very violence of the conflict enhances the polarization rather than the existence of large borderlines and unclaimed territories. J. B. Carroll²² laments this

exaggerated dichotomy (to which the regretfully acknowledges contribution) and enters a plea for a synthesis of the best that each theoretical orientation can offer to the teaching of foreign languages. Such an approach is favored by the proponents of Contrastive Analysis.

It is open to debate whether Contrastive Analysis should be studied at all within the scope of learning theories. It will be seen presently that Contrastive Analysis makes few direct assumptions regarding how languages are learned, thus saving the main thrust of its powers for the problem of what should be taught. To all practical purposes, Contrastive Analysis constitutes more a "problem selector" than a theory of learning or teaching. There is little doubt that Contrastive Analysis should not be presented here as a rival to the two main competing theories, any more than it should be passed off as a compromise position, even though it freely draws from both approaches. It simply places itself on a different level, that of tactical decisions. Once a problem is selected, it can be dealt with according to any theory of teaching or learning.

It would be unfair, however, to dismiss Contrastive Analysis, even in such a limited study of the field, simply because it does not boast a distinctive view of language acquisition and accepts postulates from either side without discussion. The great originality of this analysis resides in the fact that, bypassing the arduous task of explaining how users acquired the language they indeed possess, it addresses itself directly to the question of foreign-language acquisition. Of course, this rules out Contrastive Analysis as a unitary linguistic theory, but makes it singularly relevant to the topic of this inquiry.

Drawing from the Habit-Formation Approach, Contrastive Analysis acknowledges the existence of language interference. But, instead of

concentrating on the difficulty of exorcizing it, it endeavors to make use of it. Considering that it is useless to reteach those areas of the target language that overlap with the native (substratal) language, Contrastive Analysis defines the field of foreign-language acquisition as the range of differences between the two languages.

This analysis is certainly congenial to a certain kind of common sense argument and has the great merit of defusing potentially sensitive theoretical queries, while focusing on the core question: what to do with the learner's current knowledge of his own language. Moreover, it supplies a straightforward explanation for some errors committed by learners belonging to a specific language community and might help to prevent them. How come such an efficient approach does not receive a stronger adhesion from the critics?

Criticisms of Contrastive Analysis

Contrastive Analysis "contains certain paradoxes and theoretical problems,"²³ which make it unacceptable to certain theorists. To a structural linguist, for example, there is something unprincipled in contemplating the overlap of two language systems when each of them is supposed to be entirely closed and discrete. In de Saussure's view, "langue" is a system all of whose elements are solidary and in which the value of the one is defined only by the simultaneous presence of all the others. It is only through an act of subjective (and nonlinguistic) rationalization that the two systems can be compared.

A generative linguist could be expected to welcome an approach based on similarities and divergences. The ones can be considered universals and the others the result of transformations from deep structures. Unfortunately, there exists a fundamental discrepancy between the

assumptions of Contrastive Analysis and its application: the entities to be contrasted really represent competences in the two languages while, when we mention the prediction of errors, we are actually evaluating matters of performance. Performance is irremediably ruled out of the linguistic domain by the metatheory. Incidentally, even the uncommitted observer has to agree that errors of performance can be attributed to many other causes than interference or conflicting competences (fatigue, emotion, and so on) and thus fall beyond the range of predictability.

Dulay and Burt,²⁴ as well as other advocates of Error Analysis, a Code-Learning inspired view of the problem, have stigmatized the record of Contrastive Analysis in terms of deviancy prediction. In the study under reference, they collected errors committed in the learning of English by Spanish-speaking children of variable backgrounds. Those errors were classified into interference errors (those predicted by Contrastive Analysis on the basis of the Spanish substratum), developmental errors (those also reported among peers who were native speakers of English) and unique errors. They found that only 3% of the mistakes agreed with a theory of interference against 85% that could be accounted for by a process of developmental "creative construction." Beyond questioning the value of Contrastive Analysis as a predictive device, such results may well deny native-language interference the role of main error source in language learning.

Selinker echoes the same concern with the introduction of his concept of "Interlanguage."²⁵ In his learner-centered view, Native Language and Target Language are unrealistic units. What the student uses in his "learning attempt" is an Interlanguage, which is neither NL or TL. When the learner is backsliding, the regression is not random or directed

toward the native language, but toward the Interlanguage. This language has **its** own grammar and regularities and can be accounted for by five **major** causes (language transfer, transfer of training, strategy of **learning**, strategy of communication and over-generalization), among which only the first one is traceable to the native language. Selinker **trusts** the study of those Interlanguages rather than Contrastive Analysis to **supply** useful insights into the learning process.

Of course, such Interlanguages are, to a large extent, personal and **unstable**. Corder, who prefers to call them "Idiosyncratic Dialects," does **not** hesitate to compare them to the "provisional competences" of the Code-Learning School and to welcome the commission of errors as a **necessary** step of the learning activity.²⁶ Thus is not only interference **robbed** of its nefarious role but promoted to a useful position as well.

However, in spite of the enlightenment given to our understanding of **the** learning task by Error Analysis, it could be argued that its **Pedagogic** lessons are not clear. Why exchange the certainties offered by **the** comparison of two explicit systems for the vagaries of **idiosyncratic**, shifting units? In truth, the boons of Contrastive Analysis are **not** so secure either.

Even the practitioner who does not intend to be swayed by theoretical **allegiance** may well conclude that the implications of Contrastive Analysis are far from univocal. Once an area of contrast between the **target** and native languages has been isolated, what should be done? If the **divergence** is considerable (and consequently "difficult"), should it be **dealt** with early in the program (on grounds of importance), or much **later** (in order to insure proper grading of difficulty)? If a common **target** structure stands in contrast to standard native usage, but

parallels nonstandard forms, how should the situation be treated?

It should then be obvious that Contrastive Analysis does not represent a competing alternative to Habit-Formation and Code-Learning Approaches, in terms of learning theories. Its importance as a tactical tool, however, should not be underestimated, even if it is not theoretically unassailable. It actually represents the formalization of an intuitive approach that has been used in teaching practices from time immemorial: most school materials, even in multilingual markets, are native-language specific, which seems at least a tacit acknowledgement that the learner's first language constitutes an important variable in the language-learning matrix. In fact, few if any audiolingual texts start from a genuine Tabula Rasa: some structures are implicitly taken for granted, to the extent that some commentators consider Contrastive Analysis a natural adjunct to Habit-Formation methodology:

Textbooks and classroom materials used in the audiolingual approach are generally based on a Contrastive Analysis of the student's language and the foreign language to be studied.²⁷

The fact that two major theories contend in accounting for foreign-language acquisition is widely recognized. It is true that the overwhelming majority of rank and file language teachers still use some version of the Habit-Formation Approach, but the professional literature has echoed the fury of the battle for so long that the odds are it will not just abate. For the immediate future, it can be predicted that the two approaches will continue to coexist. Some idea as to the shape of things to come in a more distant future may be gleaned as we examine the two competing views.

NOTES TO CHAPTER I

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CHAPTER 2

CONFLICTING CLAIMS

No learning theory applied to foreign-language teaching can ignore the mechanisms of language acquisition. Insofar as the objective of both the Habit-Formation and the Code-Learning Approaches consist in replicating in some ways the linguistic ability of a native speaker (while disagreeing on the precise meaning of that statement),¹ it seems inescapable that the theories will concern themselves with the condition that make second acquisition similar to or different from first-language acquisition. It is equally logical to eventually study this first-language acquisition in itself, to make both terms of comparison absolutely clear.

FOREIGN-LANGUAGE ACQUISITION

Child and Adult Learner

Ever since the Direct Method and, previously, the Natural Method began to put their mark on foreign-language education philosophy, one concern has been looming over language learning: foreign-language teaching should take into account the way that the native language was learned. The precept seems logical if we consider the character of language as a natural, spontaneous activity as opposed, for instance, to mathematics, which we posit as a symbolic or artificial activity. Pursuing the same Rousseauvian lines, we must admit that "nature is the best master" and that striving to improve on her would be pretentiously foolish. This innocent admonition, to which both theories subscribe up to a point, may have caused more controversy than all the other points on which they disagree.

To the Habit-Formation adherents, the old Direct Method principle of first-acquisition replication was an effective slogan. It denounced the excessive reliance of Grammar-Translation on prescriptivism and proclaimed the "re-mentalization" of language teaching. Unfortunately, the weapon misfired when turned against the new contenders. As we shall see presently, current Habit-Formation practice tends to be very demanding in terms of material control, while Code-Learning has to a large extent succeeded in "re-mentalizing" our views on first-language acquisition. This paradoxical situation makes it difficult nowadays to recognize which of the two theories is the true heir to the Direct Method.

The Direct Method insistence on replication was a salutary reaction to the teaching practices of a time that we are repeatedly assured is past. No better or more entertaining illustration of the position can be found than François Gouin's account of his tenacious pursuit of the elusive German language.² Gouin shared in the not-uncommon delusion among Latin teachers that he was in a position to teach himself any language "in no time," thanks to the expected positive transfer of grammatical knowledge. In his self instructional zeal, he went to the trouble of memorizing, in consecutive order, a German grammar, a list of 800 roots, a conversation phrasebook and even a pocket-sized German-French dictionary. In spite of all that, the native speech was still a closed book to him. On his return home, Gouin discovered to his chagrin that his three-year-old nephew had managed (in the same time he spent not learning German) to become perfectly fluent in French by just being curious about his environment and trying out his new acquisitions on his entourage.³

It may be oversimplistic, however, to admonish all adults to pattern their learning on the model of a child acquiring its first language.

Actually, those theorists who are inclined to think that a replication of first language acquisition would be quite desirable in learning a foreign language also happen to belong to the orientation that is more candid about our ignorance of the processes of first-language learning. There is thus little advocacy of retracing those steps we took when we acquired our native language while knowledge of those steps is so scarce. On the other hand, insofar as the hypothesis of unlearned language capabilities is tenable, our inability to describe those capabilities precisely should not bar us from putting them to use in a language program. This is the position taken by Dulay and Burt, when asking, "Should we teach children syntax?".⁴ Their conclusion is that, at least in the case of young children taking a foreign language at school, the subjects learn the syntax even if they are not taught it.

Even though such radical views on the influence of specialized instruction may sound repugnant to a professional, most would agree that first language acquisition provides some instructive insights for planning foreign-language programs.

Skill Priorities

The Habit-Formation Approach finds in the analogy between first and second acquisition a justification of the structuralist tenet that speech is primary in language: a child acquires speech before or, (in certain social or linguistic communities), to the exclusion of reading and writing. The same reasoning is at the basis of the priorities of skill-development: listening - speaking - reading - writing, usually referred to as "the natural order" by true believers, because it is the order followed in the always successful first acquisition.

Exposure Control

While allowing that there exist objective differences between the adult learner of a foreign language and a child learning his first (amount of practice time, reduced motivation, noxious effect of a foreign linguistic system, neurophysical changes in the state of readiness), the same school maintains that the task facing the two learners is the same: developing a new set of habits. Unfortunately, due to the differences between childhood and adulthood, the uncontrolled, autonomous approach followed by the child in his assimilation of language through imitation of and generalization from the random corpus supplied by the environment is no longer a viable strategy. "The capacity to learn a foreign language diminishes somewhat with age after adulthood, but it is not lost."⁵ Therefore, the adult learner should be optimally supplied with firmly-controlled materials. "Adults can learn more effectively by systems and by systematic cataloguing than do children."⁶ In this presentation, a high degree of structuration (pattern practice) will facilitate the acquisition by minimal steps. "When total experiences are not available, learning takes place by partial experiences."⁷

The Penfield Hypothesis

W. Penfield, a neurologist, maintains that after the age of ten to fourteen the brain undergoes a first phase of senescence as far as the ability to learn languages is concerned.⁸ This support from a biological authority strengthens the Habit-Formation position on the differences between child and adult learner. Some Code-Learning theorists give this conclusion qualified recognition:

[...] an individual's brain reaches a mature, adult state at approximately the age of puberty [...] It is precisely at this point in life that many people experience increased difficulty in learning a foreign language ...⁹

... are we trying to recapitulate first language learning? The answer is yes and no. No, first, because certain abilities the child has are lost and we cannot hope to use them again after he is ten years old or so. We do not even know that these abilities were.¹⁰

Those by no means overwhelming endorsements of the Penfield hypothesis are not subscribed to by Newmark and Reibel.¹¹ They argue that most of the alleged differences between first- and second-language learners are quantitative and not qualitative:

What is usually taken as evidence against [the adult learner's] ability to learn as a child learns is the fact that they speak the new language with an accent. [...] The neuro-physiological evidence may be used to argue that adults are quantitatively inferior to children as language learners; it cannot be used to argue that they are qualitatively different kinds [*italics theirs*] of learners.¹²

Amount of Practice

Newmark and Reibel argue against further differences assumed by the Habit-Formation School. As to the superior amount of practice logged by the child ("It is a little sad to realize that the child practices so much, because this is something which no adult learner can ever hope to match."¹³), they reply that even this recognized superiority cannot account for the enormous gap between the linguistic ability of a native four-year-old and that of a college student after a two-year course. Independently, Carroll evaluates the amount of study required for success in an intensive language course at between 250 and 500 hours,¹⁴ thus suggesting that the adult's handicap in practice time may be compensated for otherwise.

Strength of Motivation

The argument that a child is more vitally motivated than an adult to learn a language is debatable and difficult to substantiate. Newmark and Reibel suggest that the prelanguage-stage baby may receive more gratification than he will ever again and point out that it is awkward to posit motivation in any other terms than the ones of effort. Perhaps successful adult learners achieve thanks to their industriousness while the child just cannot help it.¹⁵ The theoretical position that brings out most clearly the fundamental opposition of the two schools is the one concerning the interference of the native language.

Overt Interference: the Native Language

It is a point of general agreement that all adult learners possess a system of, at least, one natural language.

Interference: A Curse

From the point of view of Habit-Formation, this language constitutes a handicap:

The mere fact that you already have a native language that will interfere with the foreign language makes second language learning and first language learning quite different processes.¹⁶

We have already established how uncomfortable the situation was to the minds of descriptive linguists. Claiming, as they do, that each language represents a closed system without contact with any other, they are bound to view the intrusion of another system carried by the learner as a bothersome albatross. A teaching theory based on a conditioning model has to make sure of the purity of the stimuli. Even when the quality of modeling supplied by the instructor is carefully controlled,

there is the remaining scoria of the covert stimuli ever present within the learner himself, when he translates mentally, echoes mentally and makes mental analogies. These activities cause mistakes which, in their turn, become faulty stimuli. The problem of native-language interference (or negative transfer) cannot but be seen as a source of contamination that should be cordoned off (by banishing the native language from classroom interaction), eradicated before the subject matures ("those who advocate the 'early start' should be aware of the fact that their case rests primarily on avoidance of interference or negative transfer ..."¹⁷), or combatted by raising the population awareness of the menace (Contrastive Analysis).

The difficulty of the first alternative is well-known and the efficacy of the last one is held in doubt by many theorists, as seen supra. For instance, Contrastive Analysis considers as problematic the case when a concept represented by one word in the native language is split between several words in the target language. How can we avoid contamination by the native language without compounding it with an explanation in that language? Hadlich mentions the problem of teaching Spanish 'salir' and 'dejar' to native speakers of English:

The point is that 'problem pairs' are nonnative. The relation between the members of each pair is extraneous to the language being studied and is thus an artificial and perhaps unnecessary constriction imposed on the foreign language from without ... [...] ... even if students are somehow prevented from making associations based on the implicit English language criteria, they are nevertheless being taught that 'salir' and 'dejar' are easily confused in Spanish and must be used with care. Awareness of the possibility of erroneous substitution fosters in itself the substitution it is designed to forestall and so defeats its own purpose. The contrastive drill is a self-fulfilling prophesy and problem-pair confusions are the results.¹⁸

Interference: A Case of Growing Pains

About a similar problem, Jakobovits suggests that the predicament may be less serious than had been feared:

... the fact that the /l/ and /r/ sounds are predictable areas of confusion for a Japanese learning English says nothing about the way in which he will eventually learn the distinction. It is unlikely that this distinction is learned in isolation. Instead, it is more likely that the confusion will disappear when the overall structure of English phonology is internalized.¹⁹

The view is shared by Newmark and Reibel:

The problem of "interference" [...] reduces to the problem of ignorance, and the solution of the problem is simply more and better training in the target language, rather than systematic drills at the point of contact between the two languages in order to combat interference.²⁰

That such confidence is over-optimistic is suggested even by stern critics of Contrastive Analysis. As a seminal observation from which all the "Interlanguage" theory arose, Selinker cites the popular knowledge that linguistic "errors" have a way of reappearing time and again after they were thought to be eradicated in the performance of foreign speakers.²¹ Knowledge is thus not a total guarantee against deviant performance, even within the accepted limits of performance.

Besides, the hypothesis that interference will lose its seductions when all the truth is known about the target language is difficult to test in the absence of a comprehensive and explicit statement of that language. Very often the transformationalists and, most of all, their educational supporters, act as if this "grammar" they posit were available on some library shelf, but "it is not even written".²² It is not enough to forecast that the defect will yield to treatment once the treatment is discovered; we want to be sure it will not resist it.

Another kind of situation may be relevant to the issue: let us consider the case of an adult alien living in a community whose language he speaks with less than native purity. The subject has been exposed to an amount of practice not incommensurable with that of a native. If we accept, as do some Code-Learning authorities, that an adult can learn in the same way as a child, why doesn't the learner internalize a genuine grammar instead of some compromise between the two linguistic systems?

Interference Revisited: "Interlanguage"

Selinker's theory of "Interlanguage"²³ may be able to throw some light on this issue. His position is that native and foreign learners cannot generally be equated, even when they benefit from the same exposure, because the loci of their learnings are not identical. He first disposes of those learners who acquire the target language with perfect accuracy: those fortunate and very rare persons (he estimates them at 5% and may be generous, at that) succeed in reactivating the innate language acquisition device posited by Chomskyan cognitive theory in first language acquisition, and in putting it at the service of the new language. For those successful learners, there is no difference between first- and second-language acquisition.

Selinker does not offer any speculation on what distinguishes those exceptional subjects from the others and one may be tempted to look for some physiological rationale. In Multilingualism, Vildomec studies cases of actual multilingual adults. He states:

Studies made by physicians on the brains of multilingual individuals have shown that some parts of the brain of such people are particularly developed ... [...] It seems that there is a centre of multilingualism which acts as a "switchboard." This centre is near Wernicke's speech centre, near the back limit of the fossa Sylvii and the neighboring part of the

parietal lobes. [...] in some multilingual people there may be a supplementary centre in the "other" side of the brain specialized, more or less, in some of the languages which the subject uses.²⁴

These cautious hypotheses shed little light on the causative scenario of the neurophysiological problem. Are special brain localizations differentiated by the use of the multilingual activity? Or, conversely, can we account for the success of the polyglot by exceptional aptitudes of these localizations? The questions exceed by far the scope of foreign language education.

For the rest of us, according to Selinker, the language acquisition device is not reactivated and another construct has to substitute for it: the latent psychological structure, which produces not the genuine target language, but Interlanguage, an idiosyncratic creation with its own logic and regularities.

Interlanguage is not a predictable composite of native and target languages. It is composed of fossilizations, stereotyped recurrent structures, some of which are close enough to target-language structures to pass as "correct" and some of which are deviant from native usage. As was seen supra (p. 53), those fossilizations may be justified by five principal processes, four of which are not due to native-language interference or even to clear cultural influences. One of the latter (strategy of foreign-language communication) seems helpful with respect to the case of the imperfect speech of the foreign resident. Some people subjectively assume that their fluency is satisfactory when they can communicate efficiently at their everyday level of interaction; they therefore cease to learn and are content with an interlanguage that may still be far short of native standards.

This analysis exposes the inadequacies of approaches based on native language interference as well as of definitions of success only in terms of the target language. From a humanistic point of view, it offers a picture of the foreign learner as actively engaged in a coping transaction rather than as the helpless plaything of a mysterious linguistic fatum.

Covert Interference: Meaning

Another type of interference that no Code-Learning theorist would recognize as very frightening is mentioned by Politzer: "There is probably no general cure against the type of interference that comes from clinging to intellectual understanding in favor of automatic responses."²⁵

Another way of attacking interferences.....is to eliminate meaning, and with it the main reason for interference, almost totally from the initial phases of language instruction. It is entirely possible to teach the major patterns of a language without letting the student know what he is saying.²⁶

We are now touching an area where the Code-Learning and Habit-Formation Approaches conflict in the most categorical manner. While some Code-Learning exponents would deny the effects mentioned by Politzer, many would go further and claim that a more mature intelligence is indeed an asset in learning another language. Jakobovits disagrees with both assertions:

The view outlined in this paper is that the necessary knowledge for language acquisition cannot be gained from experience with the outside world [...] Hence the imputed advantage [*italics mine*] of advanced age and cognitive development is a dubious proposition.²⁷

The problem of meaning is probably the point where the schools clash most radically,

The Habituation Theory aims at endowing the learner with the native speaker's ability to speak in a quasi-automatic fashion, that is to say without conscious awareness of the covert processes leading to the elaboration of speech: "It is highly doubtful that any firm case can be established for the assertion that the study of foreign languages makes one think."²⁸ Obviously, no theorist would claim that meaning is totally irrelevant in a language situation. However, to prevent the second-language learner from reverting to his native language and patterning his response on it, it is recommended to wait until a firm habit response has been established before he is allowed to know what he has said (at the beginning of instruction, at least). The instructor does not feel guilty for offering the learner an utterance empty of meaning: the meaning is in the pattern even though the student may not be aware of it. This position clearly represents an act of faith that meaning is a result of contextual relationships rather than their source.²⁹

In the case of Code-Learning, the belief is quite the opposite. The whole transformational methodology rests on the principle that the foreign language learner derives his surface expression from a deep structure which is the first realization of meaning. The situation, it is claimed, is the same as the one of the native language. The possession by the student of an alien linguistic system will cause a "foreign accent" that the Code-Learning instructor will deem no more tragic an occurrence than the baby's awkward pronunciation. The Cognitive School assumes that, in the same way as a child hypothesizes successive approximations of the grammar of his language, the foreign-language learner will develop increasingly complex and adequate grammars of the second language. Naturally, the first "drafts" will include many

vestiges from the native language and scoria from other sources. Those will gradually disappear as the learner realizes their inadequacies. The Code-Learning Approach consists more "in stimulating the student's innate language-learning capacity than in controlling the shaping correct responses."³⁰ Of course, that is anathema to the Audiolingual theorist, who tersely counters that "... we don't learn by making mistakes, we learn by giving the right responses."³¹ These conflicting attitudes concerning the same problem, namely incorrect production by the learner, may be explained by the views held by the two theories on the subject of performance, or behavior.

Formal Knowledge of Grammar

For the Code-Learning School, the main achievement of second-language acquisition is to master a native competence of the language. Performance can only be, at best, an imperfect reflection of this competence as such. Those "errors" may thus be tolerated and even used as stepping stones in the search for a true competence, a lofty pursuit that should not be set aside for the sake of a futile perfectionism of superficial behavior.

The Habit-Formation psychologists do not deny the existence of competence; all theories of behavior make a place for it.³² However, in order to conform with an empirical view of scientific exposition, the behaviorists chose to deal with observable phenomena only. From this point of view, an unobservable concept such as competence cannot be set up as the goal of sound teaching principles. On the other hand, performance is observable and can be modeled and objectively described. If the learner can be made to replicate a native's verbal performance, his lack of competence will not be observable. To reason analogically,

we could say that a foreign learner with a native fluency is, to all practical purposes, the linguistic equivalent of a native, in spite of his lack of familiarity, for example, with the culture. This does not deny the role of "culture" as an important linguistic factor, but, in behavioral terms, it matters little whether one uses French "formal" second person due to contextual clues or because it stems from a deep personal communion with the Gallic soul. It is thus clear that nothing that can detract from this perfection of performance can be tolerated. Where performances is all, any deviation from perfection is a step on the way to deterioration especially as the learner has no access to native competence to regenerate his defective behavior.

It seems a moot point to ask whether some knowledge of formal grammar should be supplied to the student, in order to make up for his lack of native competence. Habit-Formation's answer to that query appears somewhat ambiguous. First of all, we must register some reluctance to reintroducing grammatical analysis into the classroom. After all, the Audiolingual landslide was won over the dead body of Grammar-Translation. Among what she considers the major assumptions of the Audiolingual Theory, Rivers cites the belief that "analogy provides a better foundation for foreign-language learning than analysis."³³ Some theorists are quite adamant about the evils of analysis. Brooks says that a person who has learned how a language works has learned something he will have to forget if he wishes to advance in the use of the language.³⁴ Others are more moderate in their views. Politzer, for example, is favorable to some explanation (the word he prefers is 'generalization') of the patterns taught, but only after they have been thoroughly drilled: "Rules ought to be summaries of behavior. [Italics

his] They function only secondarily as 'predictors'."35 What, then, became of Habit-Formation's allegiance to structural linguistics and its descriptive grammar?

Descriptive grammar does indeed play an important role in the learning process, but a covert part: "[...] the function of the drill is to induce the subconscious assimilation of the rule: whether the student can or cannot set forth the descriptive statement is of purely academic interest provided he can reproduce the pattern accurately."36 "In practice, then, the student benefits from the linguistic analysis of experts who have prepared materials which set out the typical patterns of the language, and these the student learns by analogy."37 This statement clarifies both the part played by grammar in the Habit-Formation Approach and the responsibility of the curriculum developer: grammar is an artificial construct which brings together the structures of the language and can be used to systematize language presentation for the benefit of adult learners. It is a necessary aid for foreign-language acquisition, but one that should remain unobtrusively hidden from learner's awareness.

The rule, then, will represent a generalization to a broader context of habits acquired in specific instances. Obviously, some discrimination of learning will be necessary in order to limit the extension of the pattern considered. After drilling the pattern 'je parle à Jean'/'je lui parle', generalizing it to 'j'écris à Jean'/'je lui écris' and to 'je parle à l'étudiante'/'je lui parle', a French teacher may well be inspired to teach his class not to apply it to 'je pense à Jean' or to 'je parle à l'Amphithéâtre Descartes'. The problem is to find grounds on which the student can discriminate between these. In the present case, the relevant

clues are, respectively, supplied by semantic and syntactic analysis. If the student is limited to the use of analogy, he cannot avoid confusion, as the exponents of generative grammar showed with such examples as 'the boy is easy to please' / 'the boy is eager to please', which expose the dangers of restricting information to surface analogies. Evidently, in actual practice, the teacher will eventually formulate a rule such as the one Politzer suggests in concluding a similar example: "The pronominal adverb 'y' is used to replace a propositional phrase beginning with 'à, sur, dans, en', provided the noun it replaces is not a person."³⁸ And, no matter the slightly self-conscious deprecation with which Politzer may accompany the comment, ("[...] it contributes little to the student's awareness of the pattern, but it may relieve his 'intellectual anxiety'."³⁸) one may well be free to think that, without this slight concession, the teaching of the structure would be a total loss.

Cognitive psychologists refuse this alledged primacy of analogy and so do some S - R theorists: "Learning is not a passive chaining of adjacent items, but requires instead an active, analytistic mode of response."³⁹ It is, as a matter of fact, debatable whether analogy can be perceived at all without an analytic act. Experiments by Razran and others show that considerably more generalization occurs on the basis of similarity of meaning than, for example, on the basis of sound similarities.⁴⁰ Chomsky points out that "there is good reason to believe that even the identification of the phonetic form of a sentence presupposes at least a partial syntactic analysis."⁴¹ Donaldson mentions that several experiments by Speilberger prove that only those subjects who are aware of the information supplied by the reinforcing stimulus

registered gains in performance on a verbal conditioning task.⁴² He concludes that "the four skills should be practiced simultaneously after the presentation of explicit grammatical rules."⁴³ While noting a certain pessimism as to the ultimate all-explicitness of rules (mainly where culture-specific semantic variables are present), Lakoff is favorable to their use in order to make the student "reason, generalize and compare data." She favors informal rules that speak to the students' reason rather than the heavy formalism used by transformational grammarians, which she deems a task of memorization as empty as the most meaningless pattern drill.⁴⁴ Lado echoes this concern when he writes, "Surely, the language teacher must not make the old mistake of teaching transformational grammar as a substitute for the target language, for in so doing, he would not give competence in the target language but only in the system of transformational grammar."⁴⁵

The recourse to rules seems necessary in the framework of the Code-Learning School, to symbolize the native competence which is the main objective of the teaching activity. Naturally, there are degrees in the extent to which the rules will be prominent. The range goes from inductive presentation (Thomas⁴⁶) to deduction of rules from an array of well- and ill-formed sentences in the target language. One imagines that such theorists as uphold the similarity of first- and foreign-language acquisition would favor this latter alternative. But rules are needed to fuel those "provisional competences" mentioned earlier.⁴⁷ Whether the rules are supplied by the instructor or "discovered" by the learner is, indeed, an important modality, but the really relevant difference with the Habit-Formation Approach is that the recourse to rules is to be openly acknowledged.

On the topic of rules, the two theories differ, even though their differences may stem from a partial agreement on the relationship between first- and foreign-language acquisition. The Habit-Formation Approach feels inhibited in the free use of rules by the fact that the child acquiring his first language does not literally formulate overt rules. We shall see below that the Code-Learning Approach believes that the child does hypothesize rules, covertly to be sure, but rules nonetheless. It feels justified therefore in rebuilding competence with explicit rules.

Conclusions on Foreign-Language Acquisition

If Carroll is right in saying that "the Code-Learning Theory [...] may be thought of as a modified, up-to-date grammar-translation theory,"⁴⁸ and if it is realistic to see in the Habit-Formation Approach an heir to the Direct Method, then it is no small paradox that the latter should show more skepticism as to the feasibility of teaching a foreign language the way the first one was learned naturally.

Actually, the whole controversy on foreign-language acquisition is fraught with a strange ambivalence. Most Audiolingual theorists view the adult learner as a child fallen from grace, burdened with the double curse of a native language and (apparently) maturity. This adult can be redeemed only through special materials based on some grand design that should be carefully hidden from mortal eyes. Now, the marvelous thing about this is that, after painstakingly establishing all the reasons why the adult should be unchildlike, the theory commands him to learn through the same processes of imitation and generalization that he is supposed to have used as a child.

If we want to reflect on the nature of that grace lost by original language, we must carefully refrain from thinking of it as an innate

attribute, which is not only a sin against the spirit, but also a dangerous admission of mentalism. The Cognitive Approach does believe in that native state of grace and does not think it was ever lost: the adult can do again what the child used to be able to do. It is a wonder that the adult has to be taught at all, actually, and a greater wonder that he has so much trouble mastering what was once so easy to him, assuming of course, as Code-Learning theorists do, that the adult is not qualitatively different from the child. The Cognitive School very humbly admits little knowledge about the real learning process, beyond asserting that it is not merely imitation and generalization.

The preceding analysis is, of course, unfair to both theories, taking as it does the most extreme formulations of each position, to which few theorists of either side would subscribe in toto. It is indeed a view of each approach from the opposite corner, in which inconsistencies are magnified and tenets simplified to the point of ridicule. It is true, however, that the caricatures are unmistakably recognizable, and that they point out serious difficulties with each theory, where the logical apparatus tends to creak and freeze. At those points the theorist has to search his soul and build a compromise between the strong call of dogma and the equally imperious demands of experience and epistemological ethics.

Before launching into the views held by each theory on the topic of first-language acquisition, it could be apposite to cite an authorized opinion which outlines a problem not often openly identified in the literature:

It is not unfair to say that almost all of the vast literature attempting to relate psycholinguistics to second-language learning, whether produced by linguists or psychologists, is characterized

by confusion between 'learning' a second language and 'teaching' a second language.⁴⁹

At the risk of courting the wrath of both sides, it should be recognized that the preceding statement rings true. A theory which could cover both activities would, of course, be regarded as most desirable. But, in the light of the present state of knowledge, and even if it is a little premature at this point in the study, it can safely be claimed that the wealth of materials as well as of methodological works rests with the Habit-Formation side, while Code-Learning carries more conviction with respect to the contributions made by the learner's mind. It may indeed be true that each approach tries to cover both, but the former more nearly succeeds as a teaching theory and the latter as a learning theory.

On the topic of foreign-language acquisition, the conflict is waged on a disconcertingly shifting ground: both theories keep referring themselves to the nature of language and the way it is first acquired, and claim to emulate or simulate the latter, apparently positing it as a known entity. Unfortunately, their views on the subject differ so radically that it becomes completely academic to evaluate foreign-language acquisition in function of native-language acquisition when there is no agreement on the nature of the latter.

FIRST-LANGUAGE ACQUISITION AND THE NATURE OF LANGUAGE

A copious literature is available on the subject of first-language acquisition. However, only topics concerning the hypotheses of conditions pre-existing the language stage in the child and of the processes used

to explain this acquisition will be considered here, as opposed to social and physiological variables.

The Nature of Language

Task specificity

Behavioristic psychology does not see in language acquisition a very unique phenomenon. Even though it would be unfair to trace the whole behavioristic orientation of the Habit-Formation Approach to Skinner, it does not seem amiss to quote from his Verbal Behavior, an important work that was not challenged by Audiolingual educators in its time. Verbal behavior, in Skinner's view, is only a particular form of behavior: "We have no reason to assume that verbal differs in any fundamental respect from non-verbal behavior or that any new principles must be evoked to account for it."⁵⁰ He sees in the language-learning process merely an application of instrumental conditioning, in which the child is not allowed a very active role: "... merely the locus of verbal behavior, not a cause."⁵¹ In his eyes, the language ability, its species-specific character notwithstanding, does not seem to require a special treatment:

The basic processes and relations which give verbal behavior its special characteristics are now fairly well understood ... Recent work has shown that the methods can be extended to human behavior without serious modification.⁵²

Language acquisition may then be viewed as the acquisition of a new habit, a task well-documented by animal studies and, with human subjects, by experiments in verbal learning.

Given this frame of reference, a reconstruction of the Habit-Formation Theory of first-language acquisition may be attempted. The

task is rendered awkward by the fact that the literature on the subject is surprisingly slim. One explanation could be that, confident in the simplicity of the principles mentioned supra, the Habit-Formation theorists did not deem it necessary to validate them experimentally. It is true that animal and verbal learning experiments demonstrated the performance gains predicted, but it is nevertheless strange that so little need was felt for application to the very problem of child language acquisition. Another possible explanation for this lack of interest in the developmental data may be found in the relative lack of cogent epistemological pressure. For the Habit-Formation theorist, who acknowledges substantial qualitative differences between first- and foreign-language acquisition, there is little dividend in trying to assess the situation of a child learning his native language. The two situations can be thought of as too different to be of any mutual help. The theory is, after all, interested in foreign-language acquisition. It is committed to documenting how, for example, an American student can be made to speak German, an activity that the behavioristic school does not view as either more or less natural than bar-pressing for a rat.

There is therefore good reason for the Habit-Formation exponents to leave the developmental field to its specialists: nonexperimental psychologists. But it appears awkward to posit a process as a learning principle for foreign-language acquisition, on the grounds that it proved efficient in many far-removed instances, while leaving a closely-related field almost unexplored. The few references given to child language betray the fact that the relevant theory constitutes more an extension from learning theory, out of a desire for exploratory tidiness, than an independent body of knowledge.

Species specificity

In addition to the creed that learning a language is the same as learning any other activity, we find the following tenets:

- Experience is crucial, for children do not acquire a language when brought up outside a human community, and children brought up in a given linguistic community learn its language, regardless of biological origin. The latter fact denies the hereditary hypothesis while the former seems to refute any species-specific innateness of the faculty.

- The child thus brings a blank slate to the task of learning a language, which he will fill in gradually by imitating the speech of his entourage.

- It is the selective reinforcement given by the adults with "meticulous care," as Skinner puts it, that is responsible for the shaping of the child's language. Without it, mere exposure to the corrupt corpus prevailing around the learner would not account for the ultimate refinement of human language.

Innateness hypothesis

Some modern behaviorists do not quite agree with the tabula rasa hypothesis. They maintain that pre-existing conditions are necessary to explain the ulterior functioning of the stimulus-response mechanisms. For instance, some predisposition to imitation must be present to make the child respond to modeling by adults. Furthermore, some innate ability to generalize contextually must help the child discover the relations between elements of the corpus to which he is being exposed and elements of previous experiences.⁵³ The same faculty is necessary to represent the child's production of novel utterances. Incidentally, the ability

is not one of those lost with maturation, as per the Penfield hypothesis, since it is available in foreign-language learning.

Much of the preceding analysis is rejected by the Code-Learning School. The cognitive position, being strongly predicated upon the analogies between first- and foreign-language acquisition, cannot ignore the results of developmental studies. And it finds much support for its assertions there.

As concerns the claim that no substantive difference is found between animal behavior and language behavior, few theorists (even of the behavioristic persuasion) would echo Skinner's certitudes. At best, we find the defensive statement that conditioning is feasible and may apply to part of the problem: "... these theories, based on experiments performed chiefly on animals, tend to account for some part of the learning process over the entire animal kingdom."⁵⁴ The Cognitive theorists quite rightly object that extending the findings of animal experiments to man in his most specific activity is most improper. Chomsky cites at length ethologists who admit that, even in the domain of what is conventionally known as "animal language," there is no ready analogy with human language.⁵⁵ What is at stake, moreover, is not whether conditioning is effective or not, but whether it supplies a plausible scenario for the genesis of language acquisition. In the seventeenth century, Descartes remarked:

It is a very remarkable point that there are none so depraved and stupid, without even excepting idiots, that they cannot arrange different words together, forming of them a statement by which they make known their own thoughts while, on the other hand, there is no other animal, however perfect and fortunately circumstanced it may be, which can do the same.⁵⁶

It does not seem likely that even the recent achievements in primate training will change the view that language is specific to the human species:

The recent success of Gardner and Gardner in teaching a form of the American Sign Language (the deaf sign language) to Washoe, a chimpanzee, may modify this conclusion, but not totally falsify it. Washoe has acquired a productive communicative system but one that appears to contrast with human natural language in several ways.⁵⁷

In what concerns the findings of verbal learning experiments, we find the same skepticism, usually acknowledged even by behavioristically-minded educators:

Research on verbal learning, from the classical experiments of Ebbinghaus, has dealt chiefly with the memorization of syllables in a particular order (serial learning) or of one syllable or word with another in a pair (pair associates). In both cases the material learned tends to be from the researcher's native language, and the learning tasks are only remotely relevant to learning a foreign language.⁵⁸

Views on grammar

The basic point of conflict between the two theories on the subject of acquiring or using a language seems to rest with the definition of language. To the Habit-Formation School, a language is essentially a repertory of utterances whose conditional probabilities can be described only ex post facto, and partially, by a grammar. For the Code-Learning Approach, a language is a grammar that can generate infinitely varied utterances: according to Chomsky's felicitous phrase, a rule-governed creativity.

The role given to the grammar is necessarily very different in the two conceptual frameworks. According to Habit-Formation, grammar is, of course, irrelevant to first-language acquisition but can facilitate

the learning of a foreign language. For the Code-Learning School, grammar should be present in the learning of a foreign language in the same way as it is presided over the acquisition of the first one.

Isn't this begging the question? Seen now in a synchronic perspective, first-language acquisition could reduce to the child learning from the adult entourage. This would square with the observation that feral children, reared without benefit of adult human models, do not acquire language in isolation. Since children learn the language spoken by their adult community, why not agree that they repeat what they hear rather than posit that they independently rediscover grammar?

Developmental grammars

There is evidence that children do not repeat adult language (not most of the time, that is), but recreate it in a different way, following a grammar which departs from adult grammar but seems to be shared with other children at the same developmental stage.

In the 60's, the concept of young child speech being something other than a garbled version of adult speech received wide currency. Several observers proposed grammars for early language that radically differed from the ones accounting for adult productions. Such were the cases of Pivot Grammar and Telegraphic Speech.⁵⁹ At the same time, great hopes were entertained that the development of first-language acquisition would eventually vindicate the claims of the transformational grammarians and prove the existence of many of the invariants suggested in the theory. Among other issues, it was expected that some universal developmental scheme should manifest itself for all children in the learning of all natural languages. Bellugi, in her dissertation, reports evidence of transformations in child speech.⁶⁰ Weir records

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verbal play exhibiting spontaneous substitutions and transformations.⁶¹ Brown and Berko advance that children have intuition about structural descriptions.⁶² The Code-Learning psycholinguists have not reversed their position on most of these issues but they have become aware of the enormous methodological problems involved with the task of positing grammars from such a limited sample as they were using. Brown supplies tables of the reliable data yielded by "diary studies" of children available at printing time: they cover about two dozen subjects and a dozen languages.⁶³ There are evidently more sources, but the sample is nevertheless terribly restricted.

Since this enthusiastic beginning, a strict reappraisal has taken place. The same names, and often the same data, are still involved, but the limitations of the procedures are better recognized. Bloom was able to show the semantic inadequacies of pivot grammar so successfully that Brown proposes to crop the concept, as well as the one of telegraphic speech, from the literature.⁶⁵ This brings the problem of first-language acquisition more firmly within the scope of generative grammars: child grammar, whatever it is, will not be substantively different from adult grammar.

In A First Language, Brown gives his views on the state of the art in the 70's. According to him, three major progressions have been established in language development:

[...] the evolution of the basic semantic and grammatical relations across many languages in Stage I; the acquisition of fourteen English grammatical morphemes and the modulation of meaning they express in Stage II [...] the development of tag questions.⁶⁶

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Even though the last two progression are documented only with respect to American English, Brown expresses confidence in the reality of a universal order of language acquisition.

In what concerns the similarities of first- and second-language learning, Brown often reasserts the view that numerous parallels can be drawn (for instance, by contrasting his own learning of the Japanese language with a child's learning of his native language), while admitting that the analogy is not perfect: "Perhaps it is the case that the child automatically does this kind of learning but the adults do not."⁶⁷

Basically, in spite of the realization that the task will be long and arduous, the Code-Learning School does not intend to return to the parental imitation/correction paradigm as an explanatory device for the genesis of language:

In general the parents seemed to pay no attention to bad syntax nor did they seem to be aware of it. ... The child saying for instance, "Why the dog won't eat?" instead of "Why won't the dog eat?" seems to be automatically set right in the parent's mind, with the mistake never registering as such.⁶⁸

A Generative Scenario for First-Language Acquisition

Given this support from developmental research, the Code-Learning Approach appears to take the following stand on the topic of language acquisition:

- The child must be innately endowed with a specification of the possible forms of human grammar, the universal properties of natural languages:

The child approaches the data with the presumption that they are drawn from a language of a certain antecedently well-defined type, his problem being to determine which of the (humanly) possible languages is that of the community in which he is placed.⁶⁹

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Without this limitation of the field, Chomsky and Miller argue that the learning task would be hopeless.⁷⁰

- The child must be in possession of a procedure to generate and test grammars. The child must make hypotheses about the data he receives and organizes them into a provisional grammar which will be discarded when a construct with a better fit to input is discovered.

The child would seek a grammar that enumerated all the sentences and none of the nonsentences and assigned structural descriptions in such a way that non-repetitions would differ at appropriate points.⁷¹

Those procedures must include heuristic devices to select a grammar among the infinity of possible choices compatible with the input. They must also include a simplicity criterion. According to Katz, language acquisition is:

... a process of implicit construction [...] The child formulates hypotheses about the rules of linguistic description of the language whose sentences he is hearing, derives predictions from such hypotheses about the linguistic structure of sentences he will hear in the future, checks those predictions against the new sentences he encounters, eliminates those hypotheses that are contrary to the evidence, and evaluates those that are not eliminated by a simplicity principle which selects the simplest as the best hypothesis concerning the rules underlying the sentences he has heard and will hear.⁷²

The analysis is reminiscent of Miller et al.'s model of language behavior as exposed in Plans and the Structure of Behavior.⁷³ The book endeavors to account for the mechanisms of human behavior linking stimulus and response. The model, avowedly influenced by cybernetics, suggests that all behavior, including verbal, is organized as hierarchical plans subsuming and setting lower-level plans down to the basic operational unit: the TOTE (Testing and evaluating the problem, Operation,

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Testing the outcome and Exit). We can see that Katz's hypothesis testing follows a similar approach.

- The last requirement is a set of capabilities to reproduce phonetically, to label structural descriptions. The input (which the generativists recognize as sine qua non) must consist in a corpus, mostly formed of valid sentences, from which the hypotheses can be constructed.

It also seems necessary for the child to be exposed to some ill-formed sentences. These nonsentences must be signaled to the learner as incorrect, by adult redirection, for instance. In addition to that, the learner is presumably informed of when two utterances constitute a repetition, an expansion or a transformation of one another.

Discussion of the Generative View of First Acquisition

The difficulty with the nativistic position is that the concept of innate capacities is prima facie irreducible to the widely popularized conventions of scientific positivism. The blatant mentalism of the theory is by no means put under a bushel by its exponents, especially Chomsky, who seems to delight in couching it in rather aggressive terms (what Esper calls "the acrimony and arrogance of attempted communication between the Chomskyan in-group and a small number of venturesome critics."⁷⁴)

Some critics felt provoked into responding in like, and worse, manner, accusing the Cognitivists of resorting to naive anthropomorphism: "The little man-within must become quite dizzy performing these lightning calculations and pulling those--anatomical?--levers."⁷⁵

Some other empiricists do not profess horror at the idea of innate capacities per se. No theory really believes in strict tabula rasa, and even behaviorism has to posit an innate 'set of imitate' or inbuilt

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'conceptual generalization'. But what puzzles Braine, for example,⁷⁶ is the vagueness of the word 'innate'. Should one take it as meaning 'inscribed in the genes'? Does it have no developmental aspect? With that caveat, he is ready to accept the reality of some more clearly specified innate ability. On the other hand, he views some of the modalities described in Chomsky and Miller with skepticism. To him, the impure quality of the corpus to which the child is exposed, (and that provided Chomsky with an argument against the decisive role of imitation), renders the hypothesis testing approach equally dubious. It seems hardly acceptable to him that the child should test its hypotheses on the basis of adult correction, when the efficiency of such factor has been proved so poor.⁷⁷

Independently, Lenneberg argues that language development cannot be contingent upon adult information since fluency is acquired at about the same time by all children, in spite of the wide differences in rearing styles between and within their linguistic communities.⁷⁸

CONCLUSIONS

At the conclusion of this survey of the oppositions between the Habit Formation and Code-Learning Approaches, both on the topics of first- and foreign-language acquisition, it is rather difficult to make a definite choice between the competing theories. Perhaps no such choice is mandatory.

First of all, each school is fighting on its own ground, according to rules that are seldom acknowledged by the other party, and apparently with few illusions about the opposition's hopes of salvation.

When the empiricists declare that animal studies support their claims, the rationalists are prone to attitudes reminiscent of the

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'monkey trial'. Now, when they proudly show the approbation of computer simulation specialists,⁷⁹ the behaviorists just turn their backs, muttering, "We are supposed to be the mechanists!" Since each side uses a different frame of reference, the chances that polemic literature may have any effect on the opposition are dim.

For the uncommitted and interested observer who expects some enlightenment from the specialists, the controversy is just simply bewildering. Certainly, one item of information is clearly revealed by the exchange: neither of the theories is as ironclad as it claims to be. The other side may be thanked for volunteering as many skeletons as the loyal opposition's cupboard can accommodate. But each time the scales are going to tip against them, the theorists manage to save the day by adding epicycles to the model, and the uncertainty is restored anew.

The battle has raged for some time now, and out of the frustration some critics have emerged to call the population of users to their senses and encourage them to work out some improvements from the most convincing features of both theories. Belasco dramatizes this attitude in his title: "C'est la Guerre? Or Can Cognition and Verbal Behavior Co-Exist in Second Language Teaching?"⁸⁰

Rivers proposes a two-level theory of second-language acquisition.⁸¹ She recognizes that a subject wishing to express himself in a language can first exercise his freedom by choosing among a certain range of options, guided only by his creative ability, as claimed by the Code-Learning School. This she calls strategy. But once this initial selection has been made, the subject's freedom will be restricted by the closed conditions of the rules of the language, at the lower level

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of tactics. At this level, the manipulation of structures will be best acquired through practice and the use of Habit-Formation learning paraphernalia.

Rivers' approach has the obvious merit of combining a generative model with some of the behavioristic rationales. It makes a useful distinction between language competence and language skills, a behavioral concern that may be viewed as ancillary by linguists but is an imperative prerequisite to language control.

Gagné seems to endorse this distinction between skills and learning of a higher order in the Conditions of Learning:

In the design of instruction, there has come to be an increasing awareness during recent times of the necessity for devoting considerable attention to the early parts of language learning, to those capabilities that are generally called "skills." Only when such early skills are mastered, it is now generally conceded, is the student ready to progress to later stages of language learning.⁸²

Gagné's evaluation of the objectives is interesting, because it allies apparent approval of Habit-Formation processes with a quiet endorsement of higher order processes such as 'concept learning' and 'problem solving', regardless of Brooks' anathema ("language learning [does not concern] problem solving"). Comparison of the 1965 and 1970 editions of Gagné's book also makes clear that he has reconsidered his position on language learning, probably after seeking more information on the subject. Some rather dubious examples have been removed from the second edition, in which he takes a less behavioristic approach. Furthermore, the rigid ordering of learning events has disappeared, leaving room for more general categories; it is significant that the

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'orthodox' types of learning are compressed, while the 'higher order' type does not suffer a corresponding reduction.

Leaving unsolved the problem of absolute superiority of either approach, we shall turn our attention to methodological applications. First, however, we must sum up the typical features of each theory in order to investigate the legitimacy of filiation between theory and method.

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CHAPTER 3

TYPOLOGY OF PSYCHOLINGUISTIC THEORIES

The study of psycholinguistic theories, however legitimate and enlightening it may be, cannot constitute an end in itself insofar as the present work is concerned. What is of real interest to us, what can objectively benefit the field of language education, is the transformation of theoretical assumptions into teaching principles and methodology.

Incidentally, we have no evidence that the task we are facing can result in actual gains. In Biological Foundations of Language,¹ Lenneberg suggests that the natural acquisition of their first language by children cannot be altered or improved by training programs. In order to continue in the writing of this project, and indeed in this profession, we have to assume that it is not so for foreign-language acquisition, and that teaching methods do affect adult learners, an assumption in which even the partisans of uncontrolled exposure will join us.

FEATURES OF PSYCHOLOGICAL AND LINGUISTIC COMPONENTS

Between the relatively distinct and monolithic theories of language and learning we have reviewed and their multiform applications, there lies a very obscure interface. We have seen virtually unchanged materials recommended on the strength of quite opposite arguments. It is thus not enough that the educator claim affiliation to make the fruit of his effort a genuine product of a philosophical line. Moreover, given the specialized and segregated fields in which theorists and practitioners usually function, it is also insufficient that an exponent recognize the orthodoxy of a program with respect to his chosen theory. What is really called for is an array of identifiable criteria, attached to each

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approach and to each program, and by which their mutual fit can be evidenced and essayed.

Bosco and Di Pietro advocated such research in 1971:

Each of the major types of strategy can be characterized by a set of discrete psychological and linguistic features. [...] We also believe that the full value of psychological research in foreign-language acquisition will not be realized until a descriptive framework is established along the lines of the one proposed in this paper.²

The advantage of a factorial approach are manifold. First of all, it is preferable to 'broad comparisons' between the effects of several theories: such comparisons are "misdirected because of the multiplicity of features underlying each strategy and the problem of co-occurrence of features across strategies."³

An infamous example of broad comparison failure is cited by the authors. The Pennsylvania Foreign Language Research Program was conceived in 1963-64 as a testing experiment to compare the "Traditional" and "Audiolingual" Approaches as well as to assess the effectiveness of the language laboratory. After collecting and interpreting data from 104 Pennsylvania French and German classrooms with all due statistical precautions, the Program rested on some striking findings: the students' gains were not correlated to the approach, and use of the laboratory had no effect on learning! This was so contrary to expectations that Philip D. Smith, Jr., Program Coordinator, confesses saying, only half in jest, "Can I destroy what I found out today?". It turned out that classroom teachers assigned to the one and the other approach had taken great liberties with the spirit of those methods and had actually been teaching different textbooks in ways that were not significantly different.

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Another advantage of the framework is that the criteria can be isolated and tested and hopefully "brought together in new arrangements, leading to more powerful styles of instruction."⁴

The Bosco/Di Pietro Features

Without going into the reasons invoked by the authors in their article, (these have already been developed in some measure in the preceding chapters), for the selection of particular criteria, we can nevertheless supply a list of the features. Each feature is presented as a binary mark (positive when present in the relevant theory and negative when it is not the focus of instruction).

Psychological Feature:

1. Functional vs. non-functional
2. Central vs. non-central (i.e. peripheral*)
3. Affective vs. non-affective
4. Nomothetic vs. non-nomothetic
5. Idiographic vs. non-idiographic (i.e. stereotyped*)
6. Molar vs. non-molar (i.e. molecular*)
7. Cyclic vs. non-cyclic (i.e. exhaustive*)
8. Divergent vs. non-divergent (i.e. global*)

Linguistic Features:

1. General vs. non-general (i.e. specific*)
2. Systematic vs. non-systematic
3. Unified vs. non-unified⁵

(All adjectives marked * are my addition.)

Functional refers to the kind of performance expected of the learner. The performance required is functional when the learner is expected to produce utterances in order to meet certain communicative goals. It is non-functional when understanding of the linguistic structure is more valued than interactive expression.

Central evokes biological assumptions about the locus of behavior: cortical vs. sensory and motor peripheral. Recourse to central processes

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typically assumes the understanding of general orientation schemas accompanying the performance. A peripheral theory predicates behavior on verbal and situational clues.

Affective denotes the consideration given to certain motivational factors. A non-affective orientation would assume that motivational factors are inevitable concomitants of, and reducible to, cognitive or psychomotor behavior.

Nomothetic stresses the belief in integrating patterns underlying language. The opposite view either pays little attention to such rules or does not wish to bring them explicitly into focus.

Idiographic strategies encourage expressive, spontaneous behavior; stereotyped strategies enforce predetermined behavioral patterns.

Molar approach emphasizes the quality of wholeness, in contrast with a molecular approach, which focuses upon the small constituents resulting from reductional analysis.

Cyclic presentation advocates the frequent return to a point at different intervals, thus leading to gradual familiarization. The exhaustive view recommends overlearning each pattern until mastery has been achieved.

Divergent: the skills are isolated and treated separately. In the global approach, the skills are assumed to be related and interdependent.

General analysis present the language as part of a universal system of reference. The specific view of grammar studies each system as closed and discrete.

Systematic refers to an organizational scheme in the grammatical presentation.

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Unified: The learner is kept aware of the underlying grammatical model and made to integrate each new structure into a system of cross-references.

Assuming that the above criteria are at the same time necessary and sufficient to describe psycholinguistic theories, Bosco and Di Pietro suggest the following truth table concerning the Grammar-Translation Approach (GT), the Direct Method (DM) and the Audiolingual Approach (AL):

Psychological Features	GT	DM	AL
1. Functional	-	+	+
2. Central	+	-	-
3. Affective	-	+	-
4. Nomothetic	+	-	+
5. Idiographic	-	-	-
6. Molar	-	+	-
7. Cyclic	-	-	-
8. Divergent	-	-	+
Linguistic Features			
1. General	+	-	-
2. Systematic	-	-	+
3. Unified	-	-	-

6

In keeping with the optimistic tone of the paper, the authors conclude by expressing their confidence that in the future "... all the features occurring in the grid will eventually be assigned a plus value."⁷ This reveals their belief that a positive rating is desirable on each of those dimensions. It is not made clear on what grounds they posit that a divergent strategy would be more beneficial than a global one, for example, but in this writer's opinion, the analysis is enlightening even if this bias is not accepted.

Discussion of the Features

There is no question that a differential count of 'plusses' for each theory should not be attempted. Bosco and Di Pietro discourage

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such broad comparison,⁸ and the danger of performing quantitative operations on dichotomous variables is well-known. On the other hand, the presence of a positive rating where all other contenders show a minus cannot be neglected (provided, of course, that the dimension considered is relevant and desirable). Thus inspection of the grid can tell us in what way each theory distinguishes itself from all others. Grammar-Translation is unique in being "central" and "general," thus acquiring mentalistic attributes: and it is the only "non-functional" theory. The Direct Method is the only "affective" strategy (which sounds like a very subjective claim) and also the only "molar" strategy (but perhaps not that much more than the Audiolingual Theory: this may be a spurious magnification of differences caused by the dichotomy). Furthermore, the Direct Method is the one "non-nomothetic" approach. The Audiolingual Theory shows the only "divergent" approach (by insisting that the "four skills" should be tackled separately, a distinction that the authors applaud without comment) and the only "systematic" treatment of grammar (concern for minimal steps), while showing no deficiency that would be absent from its two competitors. Nothing in these conclusions seem to clash with the generally accepted images of the three approaches, which tends to confirm that Bosco and Di Pietro's framework is descriptively adequate.

The grid also supplies a means to evaluate roughly the degree of consonance between any two approaches by computing the ratio of agreements over the total number of comparisons. In this procedure we suggest that dimensions found in none of the three categories be eliminated, as agreement by default might result from the choice of irrelevant criteria and unduly affect the ratios. This nullifies "idiographic," "cyclic"

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and "unified" for the time being. These dimensions will be reinstated if found among the positive qualities of a new approach.

The case of "affective" deserves closer examination. We have seen that the authors propose to use this criterion to describe theoretical attitudes toward motivation. Some approaches neglect to include emotional factors in the belief that they represent spin-offs of cognitive or psychomotor variables and are consequently redundant. Others consider emotional factors discrete and sui generis. There is no doubt that "affective" constitutes a genuine psychological feature, should a linguistic approach choose to emphasize it, and the authors suggest that this concern should be particularly credited to the Direct Method. However, the Direct Method literature,⁹ while revealing the importance given to dramatization in language teaching, fails to yield any expressed belief in affective variables over and beyond the overall situation. Moreover, the perhaps deliberate use of the word "strategy" by Bosco and Di Pietro often obscures the question of whether they are dealing with learning or teaching, theory or methodology. It is our contention that the same set of features cannot usefully be applied to both. The abstract quality of some of the features, such as "central" and "general," leads us to interpret the framework as better suited to the description of theories (with the corresponding liability of having to devise specifically methodological features, infra). While admitting that "affective" can be applied to instructional procedures, we nevertheless feel justified in suggesting deletion of the dimension at the theoretical level.

The suggested eliminations bring the number of productive comparisons to seven. The findings will be represented by the following formula:

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Consonance (M,N): $a/b, (x+ y-)$

where $\underline{M}, \underline{N}$ are symbols for approaches,
 $\underline{a}$ is the number of feature agreements,
 $\underline{b}$ is the number of possible comparisons (here b is 7),
 $\underline{x}$ is the number of agreements on a positive value,
 $\underline{y}$ is the number of agreements on a negative value ($x + y = a$).

Consonance (AL,GT): 2/7, (+ -).

Consonance (AL,DM): 3/7, (+ - -).

Consonance (DM,GT): 2/7, (- -).

The conclusions suggested by this reading of the data are interesting. The Direct Method shows the predictable affinity for the Audio-lingual Approach, but perhaps not with the strength that could be expected (only one of the agreements is positive). The legacy of Grammar-Translation to the Audiolingual Theory is affirmed (but probably overstated) to the tune of two agreements (the only positive one is on the use of rules and we know what secondary role they play in AL). The antagonism between the Direct Method and Grammar-Translation is confirmed by two agreements, both negative.

DEFINITION OF OPTIMAL COMPONENTS

The predictive part of Bosco and Di Pietro's argument rests with the assumption that their analysis reveals weaknesses in current theories. Educational research is expected to take notice of these deficiencies and the authors predict it will respond to the task by taking the following steps:¹⁰

Overcoming of Molecularity

Analytically oriented strategies will give way to more synthetic, integrative ones. Transformational grammar has already given the impetus

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in direction of the study of principles rather than of an inventory of grammatical units.

De-emphasizing the Peripheral Reference of Behavior

The functional feature (competent performance) will remain a primary objective. Less emphasis will be given to "conditioning procedures" in favor of "cognitive mappings" of language structure.

Convergence of the Nomothetic and Idiographic Points of View

Language study will become more personalized while maintaining a continued emphasis on integrative processes underlying language behavior. In the only attribution of the paper, Chomsky is quoted on "rule-governed creativity."

Emergence of a Cyclic-Unified Approach

Overlearning will cease to be viewed as a lockstep affair. The study of structure will instead be organized as a series of ever-broadening cycles during which new concepts will be integrated within previously learned welcoming structures. This could also be interpreted as an alternative formulation of the "provisional competences" recommended by several Code-Learning authors.

Feature Assignment to Code-Learning

In these forecasts, Bosco and Di Pietro all but name the Code-Learning School as their candidate for the redirection of foreign-language education. It can be suspected, for example, that the three dimensions of "idiographic," "cyclic" and "unified," left vacuous in the grid, were included for the purpose of accommodating special concerns of the Code-Learning "strategy." This triumph is not shown

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in the paper, but the reader is presumably expected to visualize the following revised grid:

REVISED GRID	GT	DM	AL	CL (Code-Learning)
Psychological Features				11
1. Functional	-	+	+	+
2. Central	+	-	-	+
3. Nomothetic	+	-	+	+
4. Idiographic	-	-	-	+
5. Molar	-	+	-	+
6. Cyclic	-	-	-	+
7. Global	+	+	-	+
Linguistic Features				12
1. General	+	-	-	+
2. Systematic	-	-	+	+
3. Unified	-	-	-	+

Lest the exponents of the Code-Learning Approach feel overwhelmed by this massive endorsement, let us emphasize that Bosco and Di Pietro propose this view as a thing of the future, as a promise of which the challenger had still to make good in 1971.

Except where this writer felt that he had good reasons to disagree (see the cases of "affective" and "divergent"), the distribution of features in the revised grid was effected on the strength of the authors' prediction that all values would be plusses (the case of Code-Learning), or by simply accepting the values as given in the article (the case of the other approaches). Of course, the typology cannot be simply accepted on trust and should be submitted to a more searching critique. For example, from the point of view of sufficiency, the features should at least reflect the more commonly accepted views on the different theories and should be adjusted, if need be, to satisfy this requirement.

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As only the Audiolingual and Code-Learning Approaches are the subject of this work, they will be the only theories considered in the discussion. The feature framework will then be compared with authoritative descriptions of the competing theories and value assignments assessed from these accounts.

Discussion and Refinement of Features

Let us first check whether the distribution of features for the Audiolingual Approach agrees with Rivers' assumptions in The Psychologist and the Foreign Language Teacher.¹³

- Assumption 1: Foreign-language learning is basically a mechanical process of Habit-Formation.
- Corollary 1: Habits are strengthened by reinforcement.
- Corollary 2: Foreign-language habits are formed most effectively by giving the right response, not by making mistakes.
- Corollary 3: Language is behavior and behavior can be learned only by inducing the student to behave.¹⁴

In the first corollary, we note the peripheral reference of behaviorism, that is its [-central] character. The second corollary insists on the instant mastery of response: no successive approximation is encouraged and anything less than the right answer is a mistake. This implicitly emphasizes the [-cyclic] aspect of the theory. The third corollary promotes the actual performance, the [+functional] outlook of the Habit-Formation School.

- Assumption 2: Language skills are learned more effectively if items of the foreign language are presented in spoken form before written form.¹⁵

The assumption clearly represents the [-global] dimension of the approach, as described in the Bosco/Di Pietro framework.

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Assumption 3: Analogy provides a better foundation for foreign-language learning than analysis.¹⁵

The third assumption presents a problem: the ambiguous attitude of the Audiolingual strategy toward grammar makes the evaluation difficult. Bosco and Di Pietro recognize that descriptive grammar guides the preparation of materials in this approach, which makes it [+nomothetic]. Rivers and others note that this grammar is not learned as such, but only as an after-the-fact summary of behavior, which makes the rating [-nomothetic]. In other words, the Habit-Formation Approach is more nomothetic than the Direct Method and less so than Grammar-Translation. This discrepancy will receive closer attention later.

Assumption 4: The meaning which the words of a language have for the native speaker can be learned only in a matrix of allusions to the culture of the people who speak that language.¹⁵

The fourth assumption reiterates, to an extent, the [+functional], communicative admonition. It is also a plea for isolating the target language from incursions by native semantics: even though it does not restrict the field to the narrow contextual domain, it still reflects a [-general] attitude.

In conclusion, Rivers' description of the Audiolingual Approach complies with the Bosco/Di Pietro matrix in its broad lines. Some differences may be explained by the necessary compactness of formulation found in a listing like Rivers' (no discussion of "molar" or "systematic," for example). On some other points there is open disagreement, as on the problem of "nomothetic," which might be dispelled by a refinement of the variables.

Let us now consider the list of the basic tenets of the Habit-Formation Theory given by Chastain in The Development of Modern Language Skills.¹⁶

1. The student should learn to handle the language at the unconscious level.¹⁷

2. Recourse to the native language should be avoided to reduce interference.¹⁷

3. Learning is the result of conditioning to situational stimuli. Responding occurs in a preestablished format without analysis.¹⁸

4. Structures are learned inductively by means of pattern drills. The knowledge of rules distracts from learning the language.¹⁸

5. The four skills should be treated in their "natural sequence."¹⁸

The first tenet manifests the [-central] bias of the theory. The second affirms the separateness of natural languages and the [-general] character of the structuralist view of language. Tenet number three is very rich. It emphasizes the situation (thus giving a [+functional] rating to the theory), its hostility to analysis ([-nomothetic]) and its prescriptive tendency ([-idiographic]), while repeating the [-central] theme.

Number four reinforces the antinomothetic position and number five acknowledges the [-global] treatment of the four skills.

As can be seen from the following matrix, Chastain, like Rivers, does not seem to allude to "systematic" or to "molar," and his analysis, like hers, agrees grosso modo with Bosco/Di Pietro's, except for a sharp dissonance on "nomothetic."

Obviously, the disagreement on "nomothetic" cannot stem from ignorance of the theoretical assertions or partisan loyalties, but must be imputed to the ambiguity of the feature as described in the original article. We remarked earlier (see note 11) that a similar problem was

AUDIOLINGUAL MATRIX	According to		
	Bosco/Di Pietro	Rivers	Chastain
Functional	+	+	+
Central	-	-	-
Nomothetic	+	-	-
Idiographic	-		-
Molar	-		
Cyclic	-	-	
Global	-	-	-
General	-	-	-
Systematic	+		
Unified	-		

implicit in the "functional" notation. Our contention is that in the present state of the matrix, several features do not represent single attributes, but, in effect, complex concepts whose attributes may overlap. The consequence is that the current features do not always allow one to discriminate efficiently between theories and often permit divergent interpretations according to which attributes stand foremost in the critic's awareness.

We suggest the creation of two new features: "analytic" and "communicative," for which we propose the following definitions:

Analytic: In an analytic strategy, the learner is invited to analyze language mechanisms. He can, for instance, adduce rules from exposure to uncontrolled language. In another case, his spontaneous errors of overgeneralization can be used to understand morphology. In a "non-analytic" strategy, reference to knowledge about language is rejected and automatic correct response is demanded. Analytic is distributed as follows:

GT: + DM: - AL: - CL: +

Communicative: In a communicative strategy, the learner sets competent performance as his goal, this performance being geared to interaction with native speakers of the language. In a non-communicative strategy, the transactional reference is de-emphasized to the benefit of other concerns, such as literary appreciation, development of "faculties," and so forth. Communicative is distributed as follows:

GT: - DM: + AL: + CL: +

Our intention in setting up these new features was to try to disambiguate the feature "functional." Bosco and Di Pietro's formulation of "functional" seemed to make competent communication and knowledge of the language structures necessarily mutually exclusive. Replacement of "functional" with "analytic" and "communicative" causes a two-way opposition (DM, AL and CL vs. GT) to develop into a three-way distribution, which seems less simplistic:

Replacement of Functional Criterion:

	Analytic	Communicative
GT	+	-
DM	-	+
AL	-	+
CL	+	+

In this distribution, we recognize Code-Learning as an approach concerned with language analysis as well as with communication, the Direct Method and Audiolingual Approach as interested only in communication and Grammar-Translation only in grammatical scholarship.

The proposed distribution of features offers the disadvantage of erasing the distinction between psychological and linguistic features, but we estimate that it is a reasonable cost in view of the improved fit.

Actually, the use of "analytic" is not restricted to the "functional" category. We believe it can solve ambiguities created by the dichotomy in the cases of "nomothetic" and "molar," provided we combine it with other variables (which are already present in the Bosco/Di Pietro grid). In the case of "nomothetic," for instance, in which the original framework could distinguish between two types of theories (CL, AL, and GT vs. DM), using a combination of "analytic" and "systematic"¹⁹ operates a fourfold division and a better indication of the unique solutions given by each approach to the problem of rules.

Replacement of Nomothetic Criterion:

	Analytic	Systematic
GT	+	-
DM	-	-
AL	-	+
CL	+	+

In the case of "molar," "analytic" will join forces with "unified" to yield a threefold opposition reflecting the similarities of AL and DM as opposed to GT and CL, the latter two also differing from each other.

Replacement of Molar Criterion

	Analytic	Unified ¹⁹
GT	+	-
DM	-	-
AL	-	-
CL	+	+

As a last check, let us consider Chastain's agreement with the values assigned in the matrix concerning the five basic tenets of the Code-Learning Approach.²⁰

1. The student will learn to create language to communicate by using rules, like the native speakers.²¹
2. Knowledge of rules is necessary before application.²¹
3. The goal of language learning is the creative use of the language.²¹
4. Acquisition of the system is more important than acquisition of utterances.²²
5. The learning should be consistently meaningful, the new material organized so as to relate to what students know of their language, the target language and the world at large. Instruction should make simultaneous use of visual and oral strategies.²²

The first and second tenets illustrate the [+communicative] and [+analytic] values of the theory. Tenet number three heralds the [+idiographic] angle of the Code-Learning Theory. In tenet number four, Chastain insists on the [+unified] aspect of the new approach. Number five reflects the [+central] character of cognitive psychology, the [+global] treatment of the skills, and the [+general] and [+systematic] view of language professed by the Code-Learning School.

The fit is excellent, which is not an absolute proof of the method, for we have already stated that the procedure followed could only yield those features sufficient to distinguish between extant theories. Should another theory make its appearance, we might need more features. We do not seem, however, to have any unnecessary or irrelevant variables, and we propose below the final revision of the feature matrix, such as we intend to use it in the rest of the work to test the strength of theoretical influences on teaching methods.

Distinctive Features of the Four Theories:

	GT	DM	AL	CL
Analytic	+	-	-	+
Central	+	-	-	+
Communicative	-	+	+	+
Systematic	-	-	+	+
Idiographic	-	-	-	+
Unified	-	-	-	+
Cyclic	-	-	-	+
Global	+	+	-	+
General	+	-	-	+

NOTES TO CHAPTER 3

1. Lenneberg, E. H., Biological Foundations of Language, John Wiley & Sons, 1967.
2. Bosco, Frederick J. and Robert J. Di Pietro, "Instructional Strategies: Their Psychological and Linguistic Bases" in Robert C. Lugton (ed.) Toward a Cognitive Approach to Second-Language Acquisition, The Center for Curriculum Development, 1971, p. 32.
3. Ibid., p. 33n.
4. Ibid., p. 33.
5. Ibid., p. 43.
6. Ibid., p. 50.
7. Ibid., p. 52.
8. See note 3.
9. See, e.g., Gouin, François, L'art d'enseigner et d'étudier les langues, Fischbacher, Paris, 1880.
10. Bosco, Di Pietro, op. cit., (see note 2), pp. 51-52.
11. The Code-Learning Approach does not conceal its preference for competence over performance, which would make it [-functional]. However, the change of emphasis of the authors equating "functional" with "competent performance" makes it impossible to decline a "+" rating!
12. If "divergent" means that the four skills have to be practiced and studied separately, then the Code-Learning Approach disagrees too much with this to be anything but [-divergent]. In order to comply with Bosco and Di Pietro's bias in favor of "plusses," "divergent" was reversed as "global" with attendant sign changes.
13. Rivers, Wilga M., The Psychologist and the Foreign-Language Teacher, University of Chicago Press, 1964.
14. Ibid., p. vii.
15. Ibid., p. viii.
16. Chastain, Kenneth, The Development of Modern Language Skills: Theory and Practice, The Center for Curriculum Development, 1971.

17. Ibid., p. 69.
18. Ibid., p. 70.
19. Features already present in Bosco/Di Pietro's grid will obviously retain the values assigned to them there, unless otherwise specified.
20. Chastain, op. cit., (see note 16).
21. Ibid., p. 93.
22. Ibid., p. 94.

PART II

EDUCATIONAL APPROACHES

CHAPTER 4

CRITERIA OF ORTHODOXY

As we are about to study the methods that claim descent from the competing theories, it appears only fair to check, first of all, to what extent they actually represent the theoretical orientations they defend.

The endeavor might seem to contain little more than academic risks if we consider the large area of disagreement between the approaches in the philosophical domain. Even the data used by each of the contenders to support their views are taken from such separate research areas that there is little likelihood that confusion of allegiances may arise. That is, at least, the picture supplied by examination of the claims at the most general level. If we want to investigate the implications for teaching, we shall have to go considerably below that level, where distinctions are no longer so clear cut and oppositions so categorical. Ney judiciously points out that a linguist's claim, in its strong formulation, does not necessarily rule out recourse in practice to what was banned in principle.¹ When, for instance, Chomsky writes, "I have been able to find no support whatsoever for the doctrine of Skinner and others that slow and careful shaping of verbal behavior through differential reinforcement is an absolute necessity,"² he means that conditioning cannot account for all aspects of language learning, not that it should not be used. Much will be found in teaching methods that is not included in theories of learning.

An evaluation as to what theory a method follows cannot, however, be made solely on the strength of the author's or the critic's

declaration, given the wide range of possible interpretations and the scope of the conceptual leap between theory and practice.

It is to be expected that educational methods derived from linguistic and psychological theories should bear a less than perfect relationship to the abstract models. There is much in classroom conditions that is not covered by either theory. This increase in the number of variables will bring about increased variability within methods. For example, no practitioner will neglect, or advocate the disregard of attitudinal variables just because the theoretical orientation chosen does not comment on them.

Addition of practices to the core of orthodox rationales will be frequently observed. The experienced educator is familiar with "tricks" that have, in his opinion, been successfully used, and he will be loath to discontinue them in spite of their lack of theoretical foundation.

There may even be a certain amount of eclecticism involved in the composition of a foreign-language program. Loyalty to the learning principles does not exclude a healthy dose of pragmatism: we know from infallible intuition that the theories of the opposition are unprincipled, but sometimes (for totally ill-founded reasons, no doubt) their methods work. The shrewd teacher will put these methods to use rather than proudly rejoice in barren integrity.

This chapter will endeavor to discover the relationship between the teaching methods suggested and the corresponding theories through the application of the distinctive features mentioned in the preceding chapter. We shall first of all endeavor to emphasize what elements in the teaching model we propose to study.

TEACHING MODELS

The basic teaching model conforms to the one posited by Glaser in Training Research and Education, which is reproduced below:³

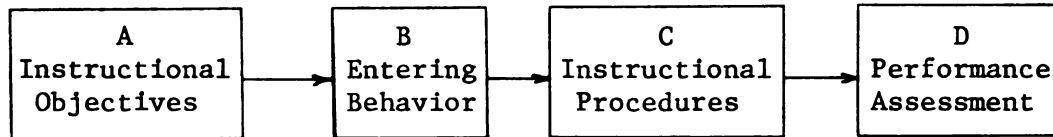


Fig. 1. Glaser's Basic Teaching Model.

This model is obviously defective in terms of our language concerns. Politzer has developed a model for the derivation of teaching methodology.⁴ If we compare it to Glaser's, we observe that I is A, II is B, III is C and IV & V correspond to D. This model is shown below:

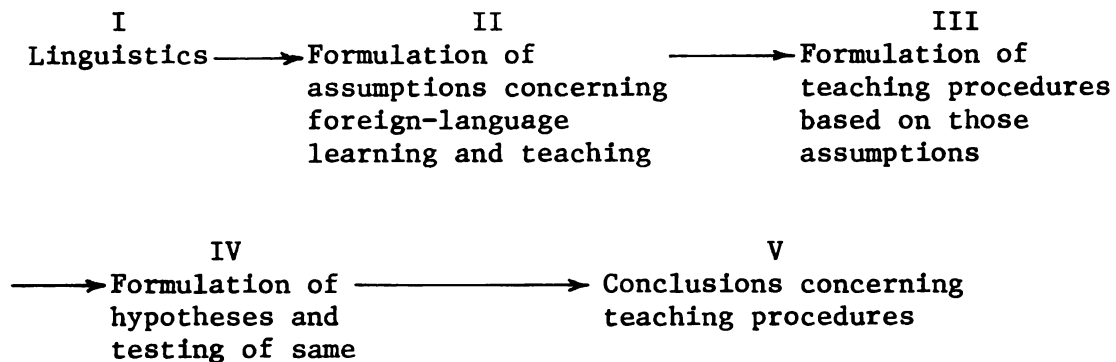


Fig. 2. Politzer's model.

As far as this work is concerned, II in Politzer's model corresponds to our Part I (Theoretical Foundations) and III to our Part II (Educational Approaches).

A point should be made before we proceed to the analysis of teaching methodology. The Politzer model (or the Glaser model), as used in this

discussion, does not attempt to map the conduct of instruction, the actual interaction between learner, teacher and subject matter; rather it only represents the derivation of teaching methodology. The patterns of classroom activities may be presumed to be too divergent, due to the sponsorship of idfferent methods, to conform to one and the same model. Specific instructional models will be introduced subsequently.

One of the exposition problems associated with this chapter is that of the sources of methodology. Doubtless, there is no lack of articles advocating or criticizing the use of one instructional procedure or another founded on the one or the other theory. The difficulty, when one wishes to display the whole gamut of procedures offered by each orientation, is to find consistent statements covering the range of grammar with any documented accuracy. Very often, "method books" supply a summary of the psychological and linguistic claims and then proceed to study the particular activities, such as "How to Teach Reading," "Conversation" or "Working in the Language Laboratory," without specific reference to the theories involved.

Definitions of Approaches

One book, however, seems to approach the topic in the desired manner. Robert Politzer's Linguistics and Applied Linguistics⁵ traces the filiation from theory to method and this separately for each theory presented here. This argument of simplicity strongly militates in favor of using the book here, provided, of course, that it proves to be reasonably untainted with bias.

Politzer was first associated with the Habit-Formation School in books like Teaching French,⁶ where he held the most "orthodox" views on language interference. But, by the time Teaching English⁷ came out,

Politzer, like many specialists, had abandoned much of the behavioristic stance. His Linguistics and Applied Linguistics, published in 1972, seems to reflect what will probably characterize the 70's: the acceptance of the Cognitive views as legitimate and worthy of honest consideration. We have, obviously, no reason to doubt the author's analysis of Code-Learning positions, since they are presented neither in a spirit of polemics nor of compromise. It is equally obvious that these judgments should be criticized when legitimate Code-Learning sources are found in conflict with them.

Habit-Formation

It is to be predicted that methods derived from a Habit-Formation Approach will adhere much closer to one another and to their model than the ones issued from the other orientation. This is reflected in Politzer's first assumption:

As1: The discovery procedures of descriptive linguistics are convertible into classroom teaching methodology.⁸

This first statement directly opposes the two approaches: not only interested observers like Lado, but also Lakoff and other transformationalists suggest that linguistic description (even their own) and teaching procedures should be kept as separate as possible,⁹ since transformational grammar does not promote "discovery procedures." Diller stigmatizes the same temptation:

Heresy I: that transformational generative grammar should be drilled into the students using the methods of [mimicry-memorization] and pattern-drill.¹⁰

To return to Politzer's Linguistics and Applied Linguistics, where methodology is clearly articulated in relation to theoretical orientations, we find the following directives concerning the Habit-Formation techniques:

As2: The student must learn to perceive all the contrasts between phonemes of the target language.¹¹

As3: In order to speak the target language in a comprehensible way, the student must learn to pronounce the phonemes in such a way that a native speaker can perceive each phoneme as distinct from all the others.¹¹

As4: The goals implied in As2 and As3 above are accomplished best by auditory discrimination and speech training which presents the phonemes in contrast with each other, preferably in minimal pairs.¹¹

It will undoubtedly be granted that a methodologist of Politzer's caliber can be trusted not to misrepresent the theoretical orientations he is portraying. It should thus not be necessary to analyze the above assumptions nor the following ones in terms of the distinctive features previously established in the preceding chapter. This procedure will be reserved for the curricula reviewed in subsequent chapters. But, in order to show the relevancy of those features and to indicate the way they can be applied to such assumptions, we shall supply the following analysis:

Absence of reference to native Language: [-general]
 Phonology seen as first "natural" step of instruction:
 [+divergent]
 Recourse to phonemic framework: [+systematic]
 Native speaker cited as criterion: [+communicative]

Having reasserted this point, we can go back to more specifically methodological considerations. The statements recommend training in

auditory perception and oral production by the method of stimulus discrimination. This is effected first by asking the student to recognize a given phoneme within a set of minimal pairs, and, in subsequent exercises, to reproduce the contrast the phonemes accurately. Even though it is not mentioned in so many words by Politzer, this constitutes an application of the Mimicry-Memorization technique (or mim-mem, in the jargon of teacher-training courses).

The qualification of the acceptable level of performance as tied to the native speaker's understanding is interesting. Besides its obvious "communicative" connotation, it is a way to introduce descriptive grammar into the instruction. This native speaker is, of course, seldom available in practice, especially for the evaluation of performance (a recording of such a person can be used for modeling). But the phonemic framework is expected to represent his abilities to all practical purposes. On the other hand, the phonemic analysis is even more useful than a native speaker because it enables the curriculum developer to systematize the presentation to an extent unmatched by the linguistically naive native. Therefore, the phonemic analysis is valuable to the teacher, while "of course, there is no need for the student ever to hear [of] it."¹² Phonemic rules are supposed to be assimilated covertly, as is the case for all grammar in the theory.

Another point of interest is that phonological instruction is, as a matter of course, taken as the logical point of inception of the program.

As5: Grammatical [or bound] morphemes should be learned in exercises in which the use of the morpheme is contrasted with that of other morphemes or with its absence.¹³

We are entering now the domain of traditional grammar and are in a position to notice obvious differences. There is no paradigmatic approach, and grammatical information is conveyed inductively by pattern practice. Once again the crucial role of carefully prepared and controlled material is emphasized.

In final analysis, it might not be too sweeping a generalization to say that the sui generis flavor of a foreign-language teaching method is indicated to a great extent by the role grammar is called to play in it. Two extreme cases immediately spring to mind: Grammar-Translation and 'a' direct method (by this we do not mean 'the' Direct Method, as opposed to the Natural Method, for example, but some general category encompassing both).

In the Grammar-Translation Method, grammatical abstractions were borne to the point of eliminating any source of native modeling.

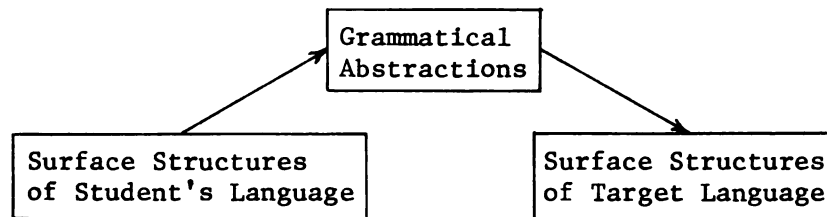


Fig. 3. Grammar-Translation Method.¹⁴

In a strict direct method (such as Berlitz's), grammatical abstractions are excluded to the benefit of modeling of native utterances.

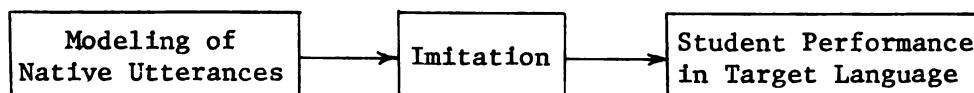


Fig. 4. Direct Method Approach.

In the Habit-Formation Method, we observe a kind of synthesis of the preceding models. Native modeling is still cited as the most authoritative source of information, but there is the implied belief that this native corpus needs to be organized in a way that facilitates its learning by an adult respondent. Descriptive grammar is expected to direct the selection and pace the presentation.

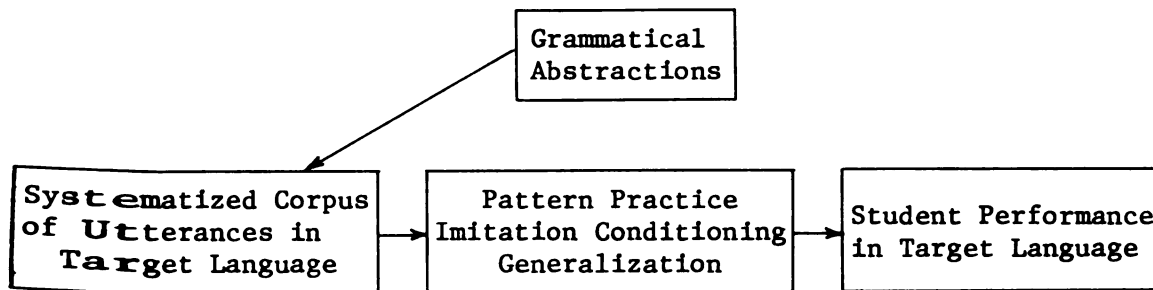


Fig. 5. Habit-Formation Approach (provisional diagram).

It will be seen presently that Fig. 5 represents only part of Habit-Formation pedagogy:

As6: Morphophonemic alternations should be learned in exercises in which the conditions bringing about the alternation are explained [*italics mine*] are contrasted for the student.¹³

As7: Allomorphs of grammatical morphemes should be presented in such a way that the less frequently used types are grouped together and presented in contrast with the more frequently used allomorphs.¹⁵

As8: Instances of suppletion should be learned in exercises in which the replatives contrast with the forms which are regularly derived from bases according to the most frequent patterns of derivation.¹⁶

The preceding statements reveal the terror of structuralist philosophies concerning the treatment of "irregularities." It is significant, for example, that the same treatment (mim-mem) is recommended for

the "umlaut" verbs of traditional philology as for the truly idiosyncratic irregular verbs. Here are excerpts from exercises proposed by Politzer (for the sake of clarity, he uses exercises suitable for the teaching of English as a foreign language):

As7, Ex. 1: Respond to the questions according to the model:

Will you <u>work</u> in the library?	No, I <u>worked</u> there yesterday.
S [stimulus]	R [response]
Will you <u>stop</u> in the library?	No, I <u>stopped</u> there yesterday.
Will you <u>fix</u> the shelves tomorrow?	No, I <u>fixed</u> them yesterday.
Will you <u>deal</u> with this tomorrow?	No, I <u>dealt</u> with it yesterday.
[etc.] ¹⁵	

As8, Ex. 1: Respond to the questions according to the model:

Do you still <u>like</u> going to the Museum?	No, but I <u>liked</u> it last year.
S	R
Do you still <u>work</u> in the library?	No, but I <u>worked</u> there last year.
<u>Are</u> you still with that company?	No, but I <u>was</u> with it last year.
[etc.] ¹⁶	

In the taxonomy of traditional philology, such paradigmatic classes as regular, (work/worked/worked), "umlaut" (deal,dealt/dealt), "ablaut" (ring/rang/rung) and irregular (be/was/been) verbs are distinguished. Any approach that is "systematic" has to see to it that these different Paradigms are presented and practiced. Habit-Formation does no less.

Actually, from the standpoint of fixing limits to the generalizations, it is desirable either that the reasons for those distinctions be made clear, or that some specific discrimination training be administered. Only a "unified" approach (one that takes into account the underlying regularities of the language) can account for the differences, for example, between the regular and umlaut classes. Code-Learning strategies

(which are both [+systematic] and [+unified]) should be able to put this point across.

It is thus not very clear how the Audiovisual student can guess that generalization is lawful in one case, limited in another and illegitimate in a third. The exercises supplied here make no use of any "unified" strategy, nor do they seem to constitute valid discrimination drills.

As far as the morphophonemic alternations are concerned, a certain uneasiness can be felt. It is too obvious that the allomorphs do not correspond to the orthodox definition of structural morphemes and that, on the other hand, the phenomenon is too widespread to be passed off as one more "exception." So, this calls for extraordinary action:

As6, Ex. 1: Note that the plural morpheme appears as -z after /b/, /d/, /g/, and other voiced consonants, that -s is used after unvoiced consonants (/p/, /t/, /k/) and -əz after sibilants and affricates (/ʃ/, /ʒ/, /ʒ/, /s/, /z/). Respond accordingly to the model:

Do you like that dog?	No, I don't like <u>dogs</u> .
S	R
Do you like that hog?	No, I don't like <u>hogs</u> .
Do you like that seal?	No, I don't like <u>seals</u> .
Do you like that fish?	No, I don't like <u>fishes</u> .

[etc]¹⁰

This breach of principle is revealing. Politzer is actually recommending deductive presentation of rules as what the theory considers a solution of last recourse. One might well think that the situation of "irregularities" was equally awkward, but apparently it did not bother the Audiolingual methodologists to the same extent. We must therefore revise the diagram of Habit-Formation methods as follows:

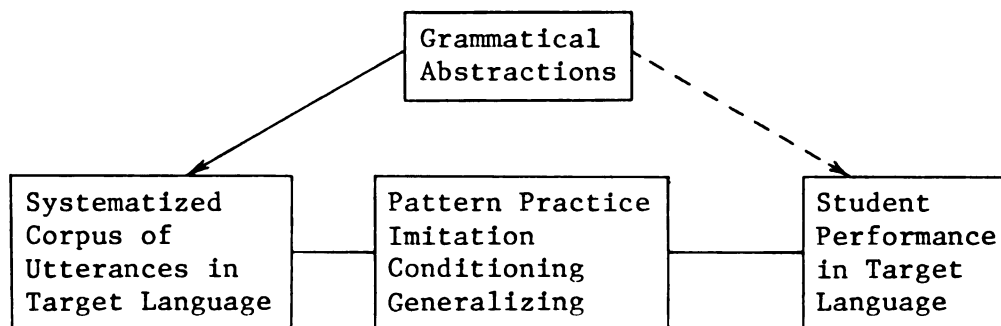


Fig. 6. Habit-Formation Method (revised diagram).

As9: Words which are formed with the same derivational morphemes are learned best in exercises which group them together and which relate them to the bases from which they can be derived.¹⁶

As10: If different derivational morphemes which have similar or identical meanings are used to derive words from similar types of bases, these morphemes should be contracted in special exercises.¹⁷

As11: All the words which are formed from the same bases by different derivational morphemes should be learned in exercises in which they are grouped together and associated with each other.¹⁷

This section deals with vocabulary formation, using derivational (bound) morphemes. As9 and As11 seem on the verge of acknowledging some generative mode of formation of the lexicon. But, probably due to the "irregularities" covered under As10, the applications remain limited to discrimination exercises geared to the learning of utterances, not of formation processes. These three assumptions illustrate a problem of Audiolingual methodology: some intuition of semantic content sometimes emerges from the data. But, for lack of a theory of underlying regularity, Audiolingual methodology has to deal piecemeal with surface pockets of exceptions and, in the ensuing tactical decisions, the generalization gets lost.

The admonitions in these three assumptions may also be taken as directed to the material developer. Even though not specifically mentioned by Politzer, dialogue construction may be concerned here. The linguistically based analytic pattern of the book may not lend itself as readily to an exposition on dialogue as other formats, but the omission of the topic is nevertheless intriguing. In Lado's Language Teaching, a less recent presentation, much space is devoted to the exploitation of dialogues.¹⁸ Dialogue is defined as the main source of situational utterances and "meaning" (in the Approach's own terms: "making the form of each sentence available as a response"¹⁹). It is expected to be taught as an exercise in mimicry-memorization and reviewed at fixed intervals of three, nine and 27 days to satisfy "the law of geometric increase of permanence."²⁰ Such detailed information may be less congenial to Politzer, whose position (like that of many theorists) has undergone a steady drift away from behaviorism during the last decade.

Asl2: An awareness of the grammatical properties of words (a concept of grammatical category) can be established in exercises in which substitution of words belonging to the same word-classes are modeled and required to be performed by the student.²¹

Asl4: The production of sentences can be learned in exercises in which the student is asked to supply lexical words for a constant pattern (a "frame") defined by items signalling grammatical meaning.²²

Asl2 is the rationale for substitution drill, Asl4 for the "structural frame" concept. The former assumes that the student can recognize the grammatical nature of an element by its position:

Asl2, Ex. 1: In the following sentences, replace the word understand by the words indicated by the teacher (Note: the directions make it clear that all the cues are verbs, thus no modeling of replacements is necessary).

S

R

Charles understands an answer
 know
 expect

Charles knows an answer.
 Charles expects an answer.

[etc.]²³

In the structural frame exercise, we find a more advanced substitution drill in which the student is expected to recognize the grammatical nature and function of elements, and to do so demonstrate by correctly placing the substitute:

Asl4, Ex. 1: Use the words indicated by the teacher as replacement in the following sentences. Substitute progressively:

S

R

teacher	Our <u>teacher</u> is expecting an answer from his uncle.
waiting for	Our <u>teacher</u> is <u>waiting for</u> an answer from his uncle.
package	Our teacher is waiting for <u>a package</u> from his uncle.

[etc.]²⁴

As Politzer acknowledges, "the theoretical accuracy of the 'structural frame' concept was indeed one of the major areas in which structural linguistics was open to attack from transformational grammar."²² Basing the functional (or actually 'tagmemic') analysis on surface structure alone can lead to gross distortions of structural pattern. In the "generative" section of his book, Politzer demonstrates the wrong way to use the structural frame:

Teacher

Student

He is eager to please.
 ready
 easy
 slow

He is eager to please.
 He is ready to please.
 He is easy to please.
 He is slow to please. ²⁵

Asl3: Formation of new sentences can be taught efficiently in exercises in which the student is required to perform the same operation (usually regrouping and/or addition of elements) on syntactically identical or similar constructions.²⁶

Asl5: The student's auditory comprehension can be trained in exercises in which he is asked to reduce sentences (to which he listens) to the grammatical minimum sentence contained in them.²⁷

Asl6: Students can learn to create and use complex sentences by procedures in which these complex sentences are created from simpler sentences by the expansion of tagmemic slots.²⁷

Asl3 introduces the transformation drill in which the model supplied is "turned into" a question, a negative statement, a passive sentence, and so forth.

Asl5 operates what the other school would call a reduction to deep structure. It is significant that the rationale advanced for the exercise does not appeal to analytical concerns but only to auditory training, as a kind of comprehension test.

Asl6 describes an expansion drill, in which immediate constituents are developed, expanded into richer elements, or inserted into "tagmemic slots." Excerpts from typical exercises suggested by Politzer are presented below:

Asl3, Ex. 2: React to the following statements:

John studied very hard.
S

I am sure that he did not study...
R

Charles prepared his lesson
[etc.]²²

I am sure that he did not prepare
his ...

Asl5, Ex. 1: Reduce the following sentences to the grammatically possible minimum sentence:

S
Most of my friends learn a
great deal of English.

R
Friends learn

Many foreign students study Students study
too many subjects.

[etc.]²⁷

Asl6, Ex. 1: Add successively the following words to the
initial sentences:

Gentlemen prefer blondes.

S

R

many
always
cute

Many gentlemen prefer blondes.
Many gentlemen always prefer blondes.
Many gentlemen always prefer cute
blondes.

[etc.]²⁸

This is the extent of Audiolingual methodology, according to Politzer.
No doubt, more commentators could have been called upon to give their
views on the subject. There is little doubt, however, that the resulting
picture would have been quite similar to the one given here. Habit-
Formation methodology, per se, constitutes a fairly homogeneous topic and
is not considered controversial within its own circle. Therefore, this
writer did not think that much could be gained by resorting to too many
opinions and prefers to follow one critic consistently, inasmuch as the
critic is reliable and not suspected of unorthodox deviancies.

Code-Learning

It could be a little more difficult to present Politzer as the ideal
representative of the Code-Learning School. In this very work, his
opinions were often cited in support of Audiolingual claims. Does it
seem fair to entrust an analyst of such partisan past with an objective
evaluation of the opposition's methods? The objection is serious but it
is our contention that it can nevertheless be overruled.

First of all, Politzer has undeniably evolved in his theoretical
allegiance. Although never so strong an ideological polemicist as, for

example, Nelson Brooks, Politzer nevertheless stood with the Habit-Formation School in the early sixties, as we saw supra. But even then, such references as he made to Gestalt psychology, for instance, already indicated that his position was not one of abhorrence for Code-Learning but, rather that he wished to side with the only developed methodological analysis available. With the emergence of new psycholinguistic formulations, Politzer, like many others, has been gradually adopting less dogmatic formats in which a multitheoretical approach is favored:

The book is also eclectic in drawing from different linguistic theories. Some of the presentation, especially in the chapter on syntax, makes use of some of the findings of transformational grammar...²⁹

The same year, he was going one step further in Linguistics and Applied Linguistics by offering two parallel developments of language methodology, one according to the Habit-Formation spirit and another in the Code-Learning tradition.

Moreover, it is difficult to find a complete exposition on Code-Learning methodology in the writings of the school itself. Unfortunately, its most articulate writers tend to be more attracted by theoretical rationales than by taxonomic surveys of methods. It would certainly be possible to draw justifications for the procedures exemplified by Politzer from different authors, but we suggest that the gain in objectivity thus effected would hardly balance the advantages of using a comprehensive, homogeneous survey by one author. This is all the more true when the survey extends to a picture of both orthodoxies under one cover, in a non-polemic spirit. We shall therefore draw the following assumptions about the Code-Learning Approach from the same book:

Linguistics and Applied Linguistics: Aims and Methods.³⁰ The reader

will notice that the notations used by Politzer distinguish assumptions by the Audiolinguualists (As, where "s" means structural linguistics) from those of the Code-Learning School (Ag, where "g" stands for generative linguistics) without presenting them as diametrically opposed: the numbering of "Ag's" starts where the "As's" left off. This shows that one school does not present itself as a point-by-point refutation of the other school, but merely as sensitive to different concerns.

Agl7: Since language is a creative activity, the goal of language teaching at any stage of the acquisition of language by the student must be to have the student create ("generate") utterances which are new in the sense that they do not represent mere copies of utterances which he has learned or memorized.³¹

As was announced earlier, this assumption makes it clear that the goals of a Code-Learning method will not content themselves with giving the student a stereotyped corpus. In contrast with the preamble of the Habit-Formation Method, there is no claim that the framework will enfold its own methodology.

Agl8: Creativity, at various stages of language acquisition is facilitated if the learner has conscious control of the rules which he must utilize in the creative process.³¹

We have seen that the Audiolingual Approach recognized this facilitation by the rules. But it is important to note that such a recourse was recommended only in cases where all "normal" procedures failed. Here, far from being viewed as a pragmatic and not too principled shortcut, the use of rules is promoted to the role of normal procedure. We shall see presently what modifications will be caused to the basic teaching model (as it was given for the Habit-Formation Method in Fig. 6, p. 127) by the spirit of Assumption 18.

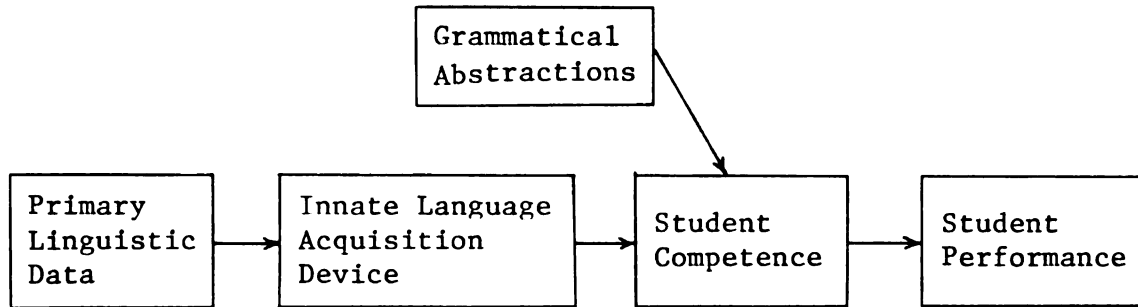


Fig. 7. Code-Learning Approach (provisional diagram).

It should be mentioned, however, that Code-Learning support for the pedagogic use of rules is not as unanimous as could be wished by partisans of strict dichotomy between the schools. Some linguists carefully distinguish between their belief in rules as explanatory devices and as desirable tactical tools:

[...] grammatical behavior is certainly rule-like behavior and is rule-describable. But it is another matter indeed to assert that grammatical behavior is rule-directed or rule-guided.³²

Robin Lakoff is especially noted among Cognitive linguists for her relative scepticism about the benefit of rule teaching. In "Transformational Grammar and Language Teaching," she discusses the complex, and now obsolete, formula for the passive transformation:

[...] it isn't a transformation in any modern sense. It is must a mnemonic device, and I am not sure it's all that mnemonic. [...] There must be a better way to talk about the formation of passive in English.³³

We must not, however, misinterpret the statement as unfavorable to the pedagogic use of rules. In this writer's interpretation, Lakoff exposes the danger of replacing the dry formalism of Grammar-Translation with the drier one of strict transformational grammar. What she advocates

is not abandoning rules, but using better, more inclusive rules, embracing among other things some of the presuppositions of the language. There is no doubt that, since the Code-Learning Approach has no desire to write the discovery procedures of linguistics into the syllabus, the abstract generative notation has no place in the teaching materials. In Rivers' words:

The deep structure and the transformational rules we read in the literature of generative grammar provide a theoretical model which does not claim to represent the psychological processes of language production.³⁴

Even Lakoff recommends that we encourage the foreign-language learner "to reason, compare and generalize",³⁵ which is considerably more "analytic" than Habit-Formation's most normative formulation. Eventually, Politzer's assumption that the Code-Learning School will make use of overt rules seems to be supported. Undoubtedly the form of these rules will vary from those we find in linguistic treatises, but their presence is made necessary in foreign-language learning by the rarefaction of the linguistic environment, as pointed out by Falk:

The use of grammatical discussion in the foreign language classroom is merely one way of compensating for the lack of the best environment for learning, that is, a situation in which the learner is continually exposed to the language.³⁶

We wish to emphasize here our view that this interpretation does not make exception for the uncontrolled exposure group. Its exponents may strive for, but not reach, this "best environment for learning," as they cannot boast the continual exposure to language that could dispense with overt rules, except for some target-country based programs (and even that is a debatable point).

Ag19: In the presentation of a foreign language, sentences representing "kernels" should be taught first. Their presentation should be followed by the teaching of transformational operations which should also be arranged in a sequence of increasing complexity (e.g. transformation of single kernels before embedding of one kernel in another).³⁷

Let us first venture an hypothesis regarding Politzer's use of the terminology. "Kernel sentence" is a phrase whose presence in a 1972 text may cause surprise. The concept was abandoned by transformational grammar long before this book was published. Its survival is certainly not due to misinformation or lack of rigor but, more likely, to a desire to avoid unnecessary theoretical abstraction in a pedagogical context. Earl Rand, in a book avowedly dedicated to the teaching of English in a Code-Learning mode, makes use of the same concept:

The drills provide appropriate practice for students learning how English kernel (or basic) sentences are combined and how the finished, resulting compound or complex sentences reveal the underlying relationship between the joined sentences.³⁸

The problem with Assumption 19 does not rest with recourse to an obsolete entity. One could accept a loose definition of "kernel" in order to avoid counterproductive digressions on the nature of deep structure. It is more difficult, however, to accept Politzer's list of ten such kernels and eleven possible transformations followed with examples of "transformation exercises."³⁹ Elsewhere than in Rand, the Code-Learning literature has failed to provide any support for the idea that transformations or types of basic sentences were necessarily limited in number by the nature of language. The very style of the quotation used in evidence, with its use of "drills," might lead us to suspect an attempt at reviving Habit-Formation practices that do not rightly belong in Code-Learning methodology. It seems, therefore that

Assumption 19 cannot be included in a general survey of Code-Learning pedagogy.

Ag20: A second language is acquired best by the pupil learning to use increasingly refined and complex grammars which become increasingly similar to the actual grammar of the target language. It is best not to control this process of acquisition [italics mine] which takes the form of the pupil making increasingly complex and increasingly correct hypotheses about the language to be learned.⁴⁰

Ag21: A second-language course should be planned [italics mine] in such a way that each stage of the course represents a generative grammar. Each successive stage adds some refinement of the preceding stage and, at each stage should the pupil be encouraged to utilize the grammar which he has learned to the maximum of its generative capacity.⁴¹

Assumption 20 represents the position of the critics who think that the difference between adult and child learners have been grossly exaggerated. In previous chapters, we have seen that it is principally Newmark, Reibel and Rutherford⁴² who hold this view and who suggest that ungraded materials are more efficient in the teaching of a foreign language. Spolsky even advocates the downright suspension of formal language instruction on the grounds that any kind of "professional help" seems to benefit less than uncontrolled exposure.⁴³

The claim that graded materials and step-by-step teaching are sine qua non conditions of instruction does not belong to the Code-Learning Approach. A theory which insists so much upon the learner's contribution to his own success cannot be accused of "pedagogism." As Jakobovits reminds us, "it appears that one can learn without being taught and one may fail in trying to teach that which is well-known and explicitly understood."⁴⁴ It nevertheless remains true that such efforts as Newmark's "Minimal Language Program"⁴⁵ (making use of nonprofessional "monitors" in unplanned classroom interaction, and having seemingly no explicit

generative reference), while not in contempt of the Code-Learning spirit, cannot claim to represent the full extent of Cognitive pedagogy. Code-Learning is certainly not antagonistic to the spirit of the Direct Method, to which it owes so much, but it should not be considered synonymous with it.

The fact that an increasing number of critics seem favorable to the uncontrolled exposure in related domains, such as reading instruction and teaching a second dialect, militates in favor of making place for it in Code-Learning methodology, with the proviso that it could by no means be deemed the only orthodox alternative.

In fact, many methodologists side with Assumption 21, and Diller is representative of their consensus when he describes the uncontrolled exposure as:

Heresy II: that the rationalist theory of language learning implies that [...] we should abandon the use of materials that are ordered according to grammatical difficulty.⁴⁶

Without joining in the anathema, we can nonetheless point out that programs following Assumption 20 are in no need of, nor would they welcome, a methodology. While recognizing their legitimacy and the logic of their position, we shall nevertheless focus mainly on Assumption 21 types of applications. By so doing, we still preserve the important theoretical implication of provisional grammars used by the learner. The only difference resides in the fact that the instructor facilitates access to the next stage by controlling the primary linguistic data offered by the student.

Politzer cites authors who have used the device and himself presents a plan for the development of a textbook on the same model.⁴⁷

Muskat-Tabakowska offers diagrams that can illustrate this problem from the point of view of "systems approach and information theory."⁴⁸

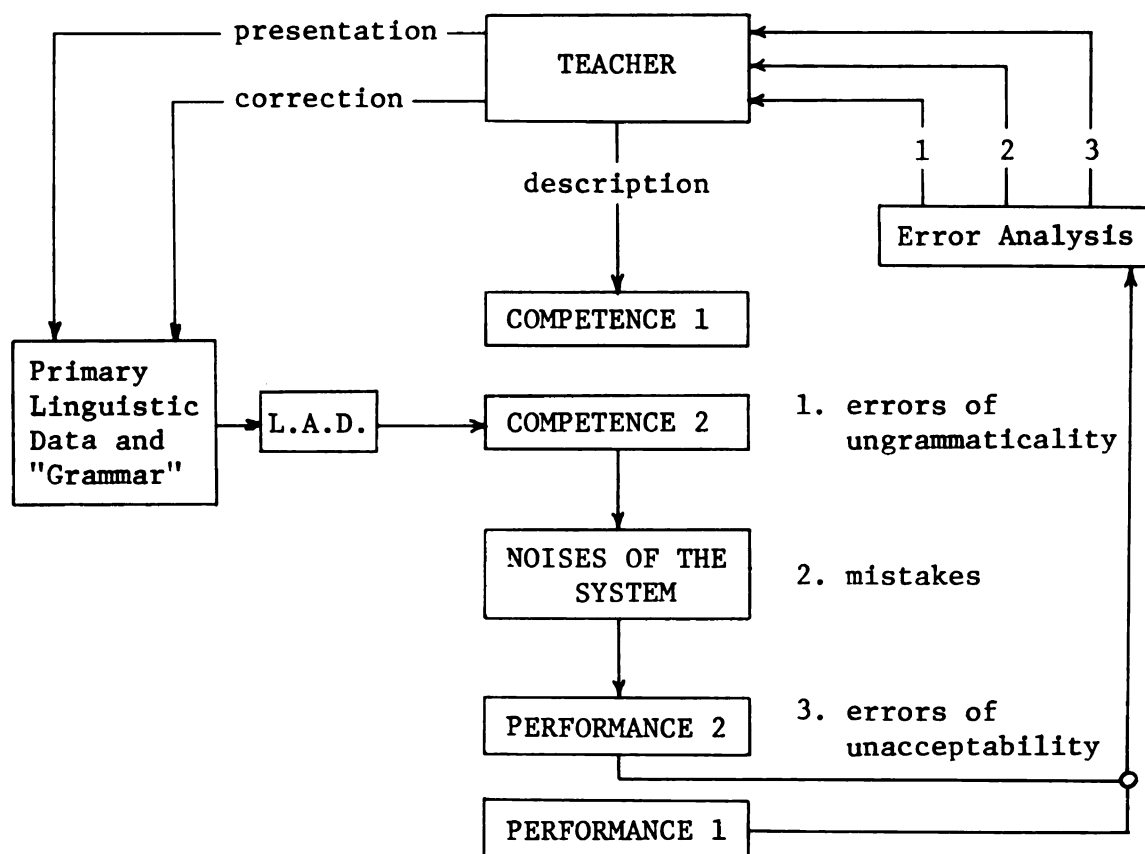


Fig. 8. Code-Learning Instructional Schema.⁴⁹

A cursory explanation of the diagram in Fig. 8 will reveal its relevancy to the functioning of the instructor in the elaboration of successive grammars in the controlled exposure mode.

The teacher supplies a corpus (Primary Linguistic Data) and a limited generative grammar corresponding to a limited competence (Competence 1). The students internalize this competence by using their Innate Language Acquisition Device (L.A.D.). A certain degree of entropy is however present and is evidenced by errors of ungrammaticality (Type 1): overgeneralization for example. The student's competence at

this point is quantitatively and qualitatively different from the target competence (Competence 1); it is thus named Competence 2.

In addition to Type 1 Errors, the students' performance (Performance 2) will be affected by other factors. The Noises of the System represent extralinguistic nuisance variables (lapsus linguae, and so on). Finally, Performance 2 will reflect errors of unacceptability (Type 3), involving problems of appropriateness and discrimination.

From a comparison between Performance 1 (presumably his own at this point) and Performance 2 (the students'), the instructor will identify the errors and correct them until the students' performance corresponds to a genuine Competence 1.

The system is then ready for the next cycle: the learning of a more refined grammar.

Ag22: a/ Pedagogical materials should be presented in such a way that identical structures which are produced by different deep structures are not contained in the same exercises, especially if the student is not made aware of the deep structure difference between the patterns.

b/ Whenever possible, exercises should be presented in a form that reveals to the student the deep structures which underlie the surface structures which he is asked to produce.⁵⁰

The first part of this assumption is a caveat against pattern drills of the John is eager to please / John is easy to please type. The point can be, and has been, belabored, but it may be interesting to see how Politzer proposes to deal with it by arranging cues in such a way that they indicate underlying deep structures:

Ag22, Ex. 1

Teacher	Student
They want to please John, but this is very difficult. John is difficult to please.	John is difficult to please.
They want to please John, for this is very easy. John is easy to please.	John is easy to please.
John wants to please everybody, but he is very slow about it. John is slow to please.	John is slow to please.
John wants to please everybody and he is eager to do so. John is eager to please.	John is eager to please.
[etc.] ⁵¹	

The goal of such exercises, not entirely devoid of artificiality, is to give the student insights into the native competence. Rand⁵² and Rutherford⁵³ have devised such drills for the teaching of English as a foreign language.

A corollary exercise would consist in asking the student to demonstrate awareness of surface ambiguities by proposing alternate deep structures for the, which is the topic of the next assumption:

Ag23: Language learners will benefit from exercises in which they are asked to give responses which indicate that they understand the results of deep structure differences which underlie identical surface structures.⁵⁴

Of course, it could be argued that this type of exercise begs the knowledge it is supposed to create. But it can be viewed as practice devised to fixate incompletely internalized intuition, especially after teacher prompting:

Ag23, Ex. 3:

Teacher	Student
Flying airplanes can be dangerous.	1. Yes, flying airplanes are dangerous.
	2. Yes, it is dangerous to fly airplanes.
Increasing enrollments can create problems.	1. Yes, increasing enrollments create problems.
	2. Yes, it creates problems to increase enrollments. ⁵⁵

Ag.24: Predictable regularities of transformation should be pointed out to the student, explained to the best of our knowledge, and practiced in exercises in which the student can demonstrate understanding of the explanation.⁵⁶

The following exercise will provide an illustration of the Code-Learning teaching style, by showing how rule instruction and meaning analysis contribute to it:

Ag24, Ex. 2: Note that the -ing form can be used as a complement only after forms that imply that the following action has, in fact, occurred. Thus, we can change:

I resented that John came late.

to

I resented John's coming late.

However, we cannot make the same change on

I believe that John came late.

Now, let us try out this rule by substituting different words for believe.

Teacher	Student
I thought that John came late.	-----
I regretted that John came late.	I regretted John's coming late.

I expected that John came late.	-----
I recalled that John came late.	I recalled John's coming late.
[etc.] ⁵⁷	

Ag25: If one underlying morpheme results in different surface realizations, these different realizations should be grouped together in specific exercises.⁵⁸

Ag26: Form classes which are related to each other by a transformational rule should be practiced in exercises in which they are compared and in which the student is asked to apply that transformational rule. A possible corollary to that assumption is that exceptions to the rule should also be pointed out and practiced after the rule itself has been the subject of specific exercises.⁵⁹

This group of assumptions could be expected to constitute a highlight of Code-Learning pedagogy. Indeed, it cannot be doubted that structural linguists are at a definite disadvantage regarding the treatment of regularities vs. exceptions: very often they suspect a relationship between forms that the theory cannot relate for lack of a subsuming system. For instance, the descriptive grammar framework does not allow us to see the French adjective 'clair' as related to the noun 'clarté', while a generativist like Schane⁶⁰ has no problem at all in proving that fact (which was well documented by traditional philology). Thus many forms necessarily presented by structural linguistics as idiosyncratic exceptions will be covered by some generative rule, and the always awkward problem of limiting a generalization will be simplified by as much.

It still remains that Code-Learning pedagogy will have to respect certain heuristic constraints. Assumption 25, for example, provides little more than Asll¹⁷ of the Habit-Formation Method. The only difference is that mimicry-memorization is not recommended in its application.

In the example given, word families such as 'divide'/'division'/'divisible' and 'persuade'/'persuasion'/'persuasive' are supplied by the teacher and placed into relevant contexts by the student. No attempt is made to compare these two series, as witnessed by the significant exclusion of 'divisive', and no explanation is offered for the allomorphic changes. Presumably, the generalization was not deemed productive enough to deserve the truly generative treatment recommended by Ag26:

Ag26, Ex. 2: Note how the following nouns and adjectives are related: sane/sanity; serene/serenity; humane/humanity. The adjectives are stressed on their final syllable and end in a single consonant. If we form a noun by adding -ity to these adjectives, the stress stays on the same syllable, but the vowels change: /e/ becomes /ae/; /i/ becomes /ɛ/; /o/ becomes /a/. Here are a few examples: verbose/verbosity; varicose/varicosity; obscene/obscenity [...]

Now, restate the following sentences by using a noun:
Model: His speech was very verbose. It was full of verbosity.

Teacher	Student
His remarks were <u>obscene</u> .	They were full of <u>obscenity</u> .
His behavior was <u>insane</u> .	His behavior showed <u>insanity</u> .
He was very <u>vane</u> .	He acted with great <u>vanity</u> .

Teacher: By the way, there are some slight exceptions to this pattern. For instance, the adjective obese [obis] is accented on the last syllable. We would expect the vowel in that syllable to change when we form a noun by adding -ity, but it does not. The noun is [obisəti]. So, tell me, what is the sickness of a man who is obese? Student: obesity.⁶¹

Ag27: Instances of simple exceptions should be pointed out to the student after the rule to which the exception is made has been learned and practiced. The exception can be practiced in exercises in which the student does not perform the transformation which constitutes the exception.⁶²

Ag28: Minor rules can be taught at any time during the progress of a course. They are taught best in exercises in which items capable of undergoing a minor rule are grouped together. Students must be warned not to apply the minor rule to words to which the minor rule is not applicable.⁶³

Ag29: Absolute exceptions can be taught after the underlying structure which either must or must not apply to the exceptional items has been mastered by the student. The exceptions can be practiced in special exercises in which the student either (a) performs a transformation with items which must appear in the structure requiring the transformation or (b) does not perform the transformation with items which cannot appear in the structure on which the transformation is based.⁶⁴

From the preceding assumptions (and more will be added to them), it can be seen how thorough a treatment of "irregularities" is offered by a generative theory of language. Simple exceptions occur when certain items "do not undergo a transformational rule, even though they meet, at least in obvious ways, the structural description of other items that do undergo the rule."⁶⁵ Examples of this category can be found in verbs like resemble, owe, have, possess and equal that cannot undergo the passive transformation. Minor rules apply only to a closed set of items. Politzer illustrates this class of rules with the case of "NOT-transportation" which applies only to think, believe, anticipate, expect and want.⁶⁶ For all other verbs the transformation would change the meaning: 'I anticipated that he would not come' / 'I did not anticipate that he would come'; 'I requested that he not attend' / 'I did not request that he attend'. Absolute exceptions occur when the structural description required for the application of a transformation cannot be met by certain items. "They cannot occur in the structure that is prerequisite for the operation of the rule."⁶⁷ Examples: 'I want'; 'I work hard' $\Rightarrow$ 'I want to work hard', but 'I beg'; 'I work hard' $\Rightarrow$ *'I beg to work hard'.

The preceding assumptions are obviously open to the criticism that, no matter how scientifically well-taken, they are pedagogically cumbersome and "teach about the language" more than they teach the

language itself. However, it should be seen that, given the presuppositions of the method to which they belong (innate language capabilities, formation of provisional grammars), they offer an opportunity for classifying and analyzing negative examples, so useful for the correct generalization of knowledge from a well formed corpus. Exercises based on the last three assumptions share a common recourse to discrimination.

Ag30: If an optional transformational rule is obligatory for some items, the rule should be presented first as an obligatory rule for all items. (The fact that it is optional for some items can be taught after it has been learned and applied as an obligatory rule.)⁶⁸

Ag31: Optional rules which are inapplicable to some items should be presented as late as possible in consideration of the general frequency and usefulness of the optional rule. Once the optional rule has been taught, items to which it cannot apply must be learned as specific exceptions.⁶⁹

Once again, these assumptions address themselves to curriculum developers as much as to teachers. They produce exercises of the discrimination type in which, for example, the student is expected to generate 'this is a happy child' from 'this child is happy' and, as per Ag31, to refuse to generate *'this is a content child' from 'this child is content'.

At the close of this review of Code-Learning pedagogy, such as it is described by Politzer, we notice the same absence of reference to dialogue as we witnessed in the Habit-Formation part of his exposition. This does not mean that the feature must be banned from Cognitive practice. Actually, the only reservation one would expect on the topic would consist in renaming the exercise to avoid the exclusive reference to oral communication, judged too restrictive by the Code-Learning School, that is reflected in the word 'dialogue'. But it remains that some text,

introducing new linguistic data, will be present in the materials of the new pedagogy.

On the other hand, one would presume that the initial rote-memorization aspect of dialogue practice, as described in hard line Habit-Formation Theory, would not be found in an approach where all learning is supposed to be meaningful. Actually, this concern has emboldened some writers to the point of suggesting return to a much abused practice of the past: the bilingual text. An example of this can be found in a Belasco article, where it is justified on grounds of meaningfulness and reading skill practice.⁷⁰

The limited scope of this work will not enable us to go into the detailed study of all skill methodology, but it can be safely assumed that Code-Learning will pay closer attention to reading and writing skills than Habit-Formation. As a matter of fact, these skills were considered so ancillary to their oral counterparts by Audiolingual pedagogy that they did not receive much attention. For once, Audiolingual technology may have been over-confident in the transfer from learning of these skills in the native language. In Code-Learning technology, it is idle to speak of "separate skills". For one thing, the word 'skill' seems to have acquired a behavioristic connotation, though some cognitive authors, like Jakobovits,⁷¹ have no qualms in using it. But given the [+global] and [+general] orientation of the strategy, superordination of activities and language insulation are not required. The teacher is encouraged to make use of what reading and writing capabilities the student already possesses within the command of his own language.

Programmed Instruction

Another methodological topic will be touched on only briefly: Programmed Instruction. Even though this work has no intention of entering a detailed exposition of the programming technique, it would be remiss not to dispose of a few queries insofar as they are relevant to the implications of the two theories under review. In the popular view of most language teachers, programmed instruction is associated with Habit-Formation. This could be partly explained by Skinner's work on machine teaching and by the fact that the technology was introduced during the heyday of the Audiolingual Approach. For example, Morton's Spanish program⁷² required the student to spend 150-200 hours learning the "acoustic grammar" of Spanish without the aid of lexical meaning. The doubly unfortunate consequence of this misinterpretation is that some practitioners will refrain from trying out Code-Learning approaches because they fear they are inadequate to programmed use, while some others dismiss programmed instruction as invalidated by Code-Learning findings.⁷³

It seems only fair, at the very least, to restate the objections to programmed instruction in the following manner: programmed instruction is obviously irreconcilable with views hostile to the use of graded materials, but it is potentially compatible with a Code-Learning orientation that rejects the uncontrolled exposure option. In other words, programmed instruction is no more exclusive of Cognitive treatment than it is a necessary component of Audiolingual teaching.

The case can be strikingly demonstrated by the fact that, according to Ornstein et al., the most massively used programmed language material is a program noted for its inclusion of Cognitive exercises:⁷⁴ Mueller

and Niedzelski's Basic French.⁷⁵ That both approaches are amenable to programmed instruction should now be evident and will constitute our excuse for not offering this mode a separate treatment.

TPOLOGY OF APPROACHES

Prior to a review of selected materials, in order to measure their fidelity, or lack of it, to the theoretical orientations, we must still devise a set of criteria, applied this time to the methodology. In the preceding chapter,⁷⁶ we established a matrix assigning values to each theory on a set of variables. The matrix is repeated below:

DISTINCTIVE FEATURES OF THEORIES

	GT	DM	AL	CL
Analytic	+	-	-	+
Central	+	-	-	+
Communicative	-	+	+	+
Systematic	-	-	+	+
Idiographic	-	-	-	+
Unified	-	-	-	+
Cyclic	-	-	-	+
Global	+	+	-	+
General	+	-	-	+

As we have noted earlier, it would be too much to hope that the same criteria could be applied directly to methods. The gap between theory and practice is too large to allow for such an extension. A new set of features will then be necessary to describe methodology, which does not preclude the possibility that a limited number of criteria can apply both to theories and methods.

Method Analysis

We shall reconsider the methodological assumptions posited by Politzer, as distributed among three major themes:

- Teaching of new elements
- Mode of generalization recommended
- Approach to syllabus

Each of these three themes will be defined by criteria chosen for their correspondence with features existing in the theory matrix.

Teaching of new elements

The opposition between the two approaches seems to reside here in the mode of presentation. One school relies mostly on repetition and imitation to fixate forms and elements largely considered idiosyncratic. The other tries to relate the new material to rules and forms previously encountered. The opposition will be rendered by the criterion "generative" vs. "imitative." This criterion reflects certain aspects of "analytic," "systematic," "idiographic" and "general" in the theory matrix.

Mode of generalization recommended

"Deductive" vs. "inductive": Even though no method can be purely deductive or purely inductive, there is little doubt that grammatical rules enjoy a very different role in each theory, and that the Audio-lingual Approach is almost exclusively an inductive method, while Code-Learning favors a deductive application of rules.

"Semantic" vs. "contextual": The treatment of syntax and its irregularities shows that the Audiolingual school relies on surface relationships and patterns (use of the structural frame, and so on). Code-Learning pedagogy, on the contrary, expects the student to reconstruct the meaning by way of deep structure. Generalization will occur, in the one case, as a function of environmental similarities, and in

the other, of similarities in the hypothesized structural description. These two criterion correspond to "central" and "unified."

Approach to syllabus

"Global" vs. "divergent": This criterion is included in the theory matrix and will retain the same definition and distribution.

"Cyclic" vs. "exhaustive" (or "linear"): The Audiolingual Approach emphasizes instant and complete mastery of the material at every stage, to ward off interference. The Code-Learning Approach prefers to come back repeatedly to a given point, each cycle including broadening "provisional grammars."

"Free" vs. "derivative": The first assumption of the two theories conflict on the subject of syllabus development. A Habit-Formation program will derive the progression of its topics as well as its elements from the discovery procedures of structural grammar. No such reservation exists for a Code-Learning program, at least as far as sequencing is concerned. This difference of concerns may explain why both theories were considered "systematic" in the Bosco/Di Pietro analysis. In Code-Learning, the relationships between elements are made explicit in a "systematic" way, while in the Habit-Formation Approach the arrangement of the topics is "systematic."

We can now present a methodology matrix based on the above distinctive features. As usual, we shall assign values as well for the Grammar Translation and Direct Method Schools, as a further illustration of the procedure.

DISTINCTIVE FEATURES OF METHODS

	GT	DM	AL	CL
Generative	-	-	-	+
Deductive	+	-	-	+
Semantic	-	+	-	+
Global	+	+	-	+
Cyclic	-	-	-	+
Free	-	+	-	+

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CHAPTER 5

REVIEW OF MATERIALS

The features devised and described in the preceding chapters may be put to different uses. They can be utilized to compose instructional programs and to evaluate the congruence of these with the one or the other theoretical family. They can be applied to the identification of teaching styles. They are, most of all, singularly well-suited to the analysis of instructional materials and, in the particular case of this study, we are going to demonstrate coding procedures in view of that application.

A word is in order here to precise the author's views on this chapter. It is not intended as an empirical justification of the constructs advanced in previous parts of the dissertation. Even though the chapter will endeavor to supply a logical application of the features to data, it should not be assumed for as much that it represents an experimental approach. The review of materials presented here by no means constitutes a test of the thesis; it is merely intended as a practical example of what we consider the advantages of using those or similar features. The particular coding we have adopted here can be disputed, as it is only a matter of interpretation. No measure of its reliability is supplied, first of all because of the impracticability of initiating qualified raters within the time limit, but mostly because the instrument is not meant as an epistemological tool.

Our reasons for analyzing classroom materials rather than actual classroom programs are both methodological and practical. As a matter of fact, program evaluation cannot be made without actual classroom observation. For obvious reasons, it was impractical to conduct such

a review. It is, moreover, open to doubt whether this would have really served the needs of this study, given the rich variability of instructor-connected variables. Since our purpose was to check the relationship between theoretical advances (or shifts) and teaching exploitation, and this with a fairly reliable degree of consistency, we have to concentrate on what is less volatile and ephemereal in a course. In the final analysis, we shall replace a survey of actual programs with an examination of the materials used in these programs.

In order to analyze the materials with the necessary degree of insight, this researcher has decided to limit the scope of the study to first-year textbooks used in American Colleges and Universities for the teaching of French.

The choice of the language was imposed by the absolute necessity for the investigator to be thoroughly conversant with the linguistic problems involved and aware of the possible pedagogic alternatives. This writer, in all sincerity, could not claim such capabilities for any other than his native language: French.

The advantage of college materials over others can be defined as that of a smaller, but nevertheless representative sample. We have no evidence to make us suspect that the distribution of biases among college authors is any different from that among writers providing for beginners at other levels. Moreover, language programs in American colleges represent a more intensive concentration and usually ask for a complete exposition of linguistic problems to be covered in one year with one book. This enables us to focus on first-year books, since "intermediate" materials, together with a recapitulation of previously presented syllabus, tend to diversify into more specific approaches

(such as literary appreciation, cultural information, and so forth) which are not central to our topic: mere language instruction.

As to our restricted objective (analysis of textbooks, as opposed to realia, laboratory programs, diverse media, and others, we can fairly assume that, notwithstanding the fashionable claim to decentralization from the printing press, all the supplementary materials still operate more as auxiliaries to the printed text than as autonomous entities. By reviewing the master text, we can guarantee the tapping of the main elements of the program.

DATA COLLECTION

Concerning the selection of the textbooks to be analyzed, there is hardly any sampling problem at all. A recent bibliography on the topic¹ lists only eight titles for college French, only five of which are first-year books. Obviously there are many more titles on the market and in use, whether they appeared after publication of the MLA Bibliography or were omitted there, but scholarly information is incredibly scarce on the subject. On the other hand, ERIC does not include commercial materials. The surveyor's only hope is to find some review of materials, or at least some study making use of them. This avenue was frustrated too. Surveys of materials could be found for practically any level and any language, except French in college.² The last reference to any statistical information on French materials in colleges dates back to 1967.³ As if to tantalize the researcher, its author supplies precisely the statistics needed, but rather casually announces that she will review only those books used by more than 10% of the sample. The result is that only three titles are listed there. It seems that information on

language programs is rare (as witnessed by the curious lack of interest in the topic shown until 1972 by the bibliography of the MLA, probably the largest language-teacher association in the world), but nowhere so rare as on French-language programs. If nothing else, this part of the research will prove at least that there is a crying need for a survey of materials used in American universities, a survey that could not be carried out within the scope of this work.

We are perfectly aware that the absence of numerical information is detrimental to the credibility of this chapter. It would seem capital to know how many students are currently exposed to materials of each orientation. We estimate, however, that an analysis of the trends found in the textbooks is still imperative. Given the limited number of such textbooks, the analysis will be conducted on the whole population (the titles listed in the 1972 MLA Bibliography⁴ and others made available to this writer).

CODING OF DATA

The analysis, of course, will be based upon the features devised in the preceding chapter and repeated below:

METHOD MATRIX

	GT	DM	AL	CL
Generative	-	-	-	+
Deductive	+	-	-	+
Semantic	-	+	-	+
Global	+	+	-	+
Cyclic	-	-	-	+
Free	-	+	-	+

⁵

For each textbook, a rating will be secured on each of the above dimensions. A comparison between these ratings obtained for the

textbooks and the method matrix will reveal their degree of agreement with particular methods. It is naturally expected that, in most cases, the consonance will be stronger with either AL (the Audiolingual or Habit-Formation Method) or with CL (the Code-Learning Approach) as these are more specifically connected with modern teaching theories, although discrepancies are expected between the state of the art in the field and more theoretical pronouncements.

The ratings will be assigned on the evidence supplied by observation of the textbook presentation of certain points for which the researcher knows that a certain number of options are present. This was the compelling reason for restricting this chapter to a study of French materials within a framework that chose elsewhere to be language-neutral. It is indeed our contention that thorough familiarity with not only linguistic but also pedagogic realities is prerequisite to that type of material analysis. The sampling of those testing points is crucial to the validity of the procedure. It is evident, for example, that a lesson on formulas of social politeness, such as the exchange, "Comment ca va? - Bien, merci - De rien" will be invariably presented in the purest inductive mode, even by the most enthusiastic "Code-Learner." A rating assigned on the strength of this observation would thus be insignificant, since any evaluation must imply a certain degree of freedom. In addition to this admittedly subjective sampling of focal points, statements made by the authors in their introduction or in the teacher's manual will be considered when they throw light on the topics considered.

Following is a specific account of the sampling points chosen for the study.

Teaching of New Elements

Generative vs. imitative

There is little doubt that the presentation of a new linguistic item will be influenced by its degree of relatedness to previously assimilated material. If the new pattern or element is reasonably novel, no choice is left to the teacher: only an "imitative" approach will fixate it in any economic way. This was the case, for example, in a situation mentioned supra (teaching of social formulas). The possibility of a choice will appear only for cases in which some relationship can be honestly suspected. At this point, the two approaches diverge.

The "imitative" attitude consists in regarding as sui generis any item whose relationship to the basic pattern is too faint to warrant a straightforward generalization. This item will thus enjoy the same treatment as the basic pattern did: mimicry-memorization. Thus any query as to how the two patterns relate and why they eventually differ is circumvented. Both patterns are now available as response habits and that is the important point in an "imitative" approach.

For instance, there is in French a class of verbs such as 'sortir', 'partir' 'dormir', 'servir' which do not follow the pattern of the majority of verbs ending in -IR (such as 'finir') for the present indicative and related tenses. Traditional grammar recognized the discrepancy and presented these verbs as a separate paradigm, distinct from the three classes of regular verbs. The "imitative" approach will favor a similar treatment, though usually de-emphasizing the paradigmatic symbolization.

On the other hand, a "generative" approach will explicitly note the relationship between the type 'dormir' and the regular type 'finir',

as Schane does,⁶ and, indeed, as the philologic tradition did. But, in addition to this, Schane succeeds in including 'dormir' into a general theory of the present that extends not only to 'finir' but to all classes of regular verbs as well, by resorting to a simple Truncation Rule. An additional dividend of the procedure is that the truncation rule is of widespread influence in French morphology and allows one to account, beyond the present, for such varied phenomena as elision, treatment of aspirated H and the semivowels and liaison.

Admittedly, such concentration of abstraction may not be desirable from a pedagogic standpoint, but we posit that the following attitudes will be typical of the one or the other approach:

Type 'dormir' will be presented as another separate paradigm in an "imitative" treatment.

The "generative" treatment will tend to display the present of verbs 'across the board' with a simple explanation of what the truncation rule and the presence or absence of a thematic vowel can effect.

Mode of Generalization

Deductive vs. inductive

"Deductive" presentation is defined as one in which the rule is presented first and then illustrated in examples and exercise.

"Inductive" presentation will place the examples and exercises first, before the rule is introduced. In a rigorously orthodox Audio-lingual textbook (a type that is not at all common nowadays), the rule may never be stated at all. Whatever the case may be, the rule is only seen as "a summary of behaviors," in Politzer's words, and not a creative pattern.

The very layout of the lesson page may be used here as a criterion, the clue being whether the explanation of the rules is present at all, and if it is, whether it follows a sizeable set of utterances supplied under the guise of pattern drills or not.

"Deductive" treatment will usually be accompanied by more extensive explanations than the "inductive."

Evidently, advice given to the instructor in the introduction or in the companion teacher's manual, will supply valuable indications as to the author's intentions.

Semantic vs. contextual

For this point too, professed intentions can be useful, but there are objective sampling points. The case of the French subjunctive, for example, may be viewed and exposed in two different ways.

From a "contextual" point of view, the subjunctive occurs in specific "structural frames." It is found in subordinate clauses when certain cues are present in the main clause. The obvious treatment of the French subjunctive syntax consists in listing those cues that trigger subjunctive use in the subordinate clause. Such stimuli as the phrases 'il faut que', 'il importe que', the verbs 'craindre' and 'souhaiter', the superlative forms and the negative forms of certain verbs will be included in the list.

The "semantic" treatment of the French subjunctive will recognize certain "meaning" features in the lexical entries of the sentence as determining the occurrence of the subjunctive, such as [+hypothetical] or [+imperative], as opposed to others that do not cause the construction to appear, such as [+declarative]. A "semantic" exposition will then be able to account for such alternations as 'C'est le plus beau

que j'aie vu' vs. 'C'est le plus beau que j'ai vu' ('It's the most beautiful I ever did see' vs. '[of several], I saw the most beautiful') which a "contextual" approach tends to ignore.

Eventually, most textbooks combine some of both treatments and none goes so far in abstraction as to use actual lexical features, but the differential emphasis placed on main-clause stimuli vs. situational clues must be enough indication of which approach is favored. For instance, the mere inclusion of exercises where the alternation subjunctive/indicative after the same main clauses constitutes evidence of a "semantic" orientation.

Approach to Syllabus

Global vs. divergent

A "divergent" attitude implies that a hierarchy, or at least an optimal sequence, does exist among the four skills. In order to avoid interference, the so-called natural order (listening, speaking, reading, writing) is followed. For example, "divergent" textbooks will insist that the student never see the spelling of a new word before he hears it. Their introductions will stress that caveat and yield lurid statements on the alleged irrationality of French or of French spelling: "... because of the discrepancies between French pronunciation and spelling, it is highly desirable to defer the "shock" of the French spelling system for a long period ..."⁷

In a "global" approach, on the contrary, some effort will be made to account for the position that, while French spelling is not supposed to make sense for any others than know the language (and something about the language), it is not such a hopeless instrument. Some "global" textbooks have been resurrected the age-old bilingual text, thus

showing how little they fear interference. As a matter of fact, they boldly court two kinds of interference: native language/target language, and reading/listening. One textbook justifies its brazenly global position with a candor that does not exclude some casuistry:

If a correct English version is in plain view, the students can see for themselves that the purpose of the lesson is not to translate the French dialogue into English.⁸

Another corollary of these attitudes can be found in the ordering of points in the book. A divergent approach will encourage the insertion of a capsule of French phonetics at the outset of the text, while global presentations seldom hesitate to spread "pronunciation lessons" throughout the book.

Cyclic vs. linear (or exhaustive)

In a "cyclic" treatment, the contents of the syllabus are organized into units that can be explored by the student, using a specific stage of "provisional grammar." When this particular stage has seemingly expanded all its possibilities, the student is introduced to a grammar in a more advanced state that can account for all the data covered by the previous one, and many others beyond that. We can view this process as "cyclic," from the standpoint of a fixed statement of grammar (the native competence), for the student will come back to the same grammatical categories at different points of his education, not only for reviewing purposes but also in order to include novel information hitherto left untouched.

The "linear" approach prefers to view grammar as a definite ordering of statements ranked for difficulty. The student is then expected to tackle each category in its turn and to exhaust all information on a

particular topic before proceeding to the next. Such an attitude is illustrated in the technique of the "minimal steps," used, for instance, in L'Echelle⁹ (the Ladder), whose orientation is aptly symbolized in the title.

In a linear textbook, when the student is learning the different uses of the present tense in French, he will be introduced to such structures as 'Je travaille dans ce bureau depuis cinq ans' ('I have been working in this office for five years') because they make use of the present. Later he will meet 'Je travaillais dans ce bureau depuis deux ans à la naissance de mon premier enfant' ('I had been working in this office for two years when my first child was born') when it is time for him to take up the imperfect tense. And then 'J'ai travaillé pendant trois ans à Paris' ('I worked for three years in Paris') and 'Je n'ai pas travaillé depuis Noël' ('I have not worked since Christmas') when the passé composé is attained.

A cyclic approach, on the other hand, would present the rules for use of the present and past tenses in storytelling (without including the For, Since type of sentence) as one cycle and, in a later cycle, would introduce 'pendant' and 'depuis' with their temporal connotations and return to the topic of what tense could be logically associated with those connotations.

Free vs. derivative

The "derivative" persuasion considers that there is such a thing as objective grammar and that classroom presentation must follow its order. The attitude is, of course, associated with a "linear" view of grammar.

The "free" view, even when it is ready to recognize the systematic organization of grammar, does not agree that this order is necessarily pedagogically optimal. In fact, we find in "free" textbooks an organization of topics along situational rather than grammatical lines. The result is that all "derivative" texts follow more or less the same pattern while there is a much greater variability among "free" textbooks.

TEXTBOOK MATRIX

A matrix for nineteen textbooks used for first-year French courses in American universities and colleges is supplied below. It should be repeated that no statistics for the use of these books is available at the time of writing. The lacuna is very regrettable, as can be seen from Gut's 1967 article,¹⁰ where three of the titles reviewed accounted for half of the material used in the sample. The titles will therefore be found ranked in alphabetical order, regardless of their numerical importance.

DISCUSSION OF RESULTS

The matrix for teaching methods is repeated below in the same format to facilitate the comparison:

Method	Generative	Deductive	Semantic	Global	Cyclic	Free
GT	-	+	-	+	-	-
DM	-	-	+	+	-	+
AL	-	-	-	-	-	+
CL	+	+	+	+	+	-

If we start looking for textbooks that reflect the exact composition of each of the orthodox methods, we observe the following findings:

GT: 2, 5, 6, 11, 12 and 19.

Title	Generative	Deductive	Semantic	Global	Cyclic	Free
1. <u>Basic Conversational French</u> ¹¹	+	-	-	+	-	-
2. <u>Basic French: An Oral Approach</u> ¹²	-	+	-	+	-	-
3. <u>Découverte et Création</u> ¹³	+	-	+	+	-	-
4. <u>L'Echelle</u> ¹⁴	-	-	-	-	-	-
5. <u>First French. Le Français Non Sans Peine</u> ¹⁵	-	+	-	+	-	-
6. <u>Foundation Course in French</u> ¹⁶	-	+	-	+	-	-
7. <u>Le Français: Ecouter et Parler</u> ¹⁷	-	-	-	-	-	-
8. <u>Le Français: Langue et Culture</u> ¹⁸	+	+	-	+	-	-
9. <u>Le Français Vif: Level 1</u> ¹⁹	-	-	-	-	-	-
10. <u>French: Listening, Speaking, Reading Writing</u> ²⁰	-	-	-	-	-	-
11. <u>Fundamental French</u> ²¹	-	+	-	+	-	-
12. <u>Introduction au Français Actuel</u> ²²	-	+	-	+	-	-
13. <u>Langue et Langage</u> ²³	-	-	-	-	-	-
14. <u>Mise en Train</u> ²⁴	+	-	+	+	+	+
15. <u>Modern French</u> ²⁵	-	-	-	-	-	-
16. <u>Modern French First Course</u> ²⁶	-	-	+	+	-	-
17. <u>Parole et Pensée</u> ²⁷	-	-	+	+	-	+
18. <u>Patterns of French</u> ²⁸	-	+	-	-	-	-
19. <u>Perspectives de France</u> ²⁹	-	+	-	+	-	-

DM: 17.

AL: 4, 7, 9, 10, 13 and 15.

CL: no complete replication.

Some of the findings are easily explainable. The poor representation of the Direct Method could be expected. We are, after all, analyzing college textbooks, presumably the kind of manuals where the presentation of a system is most valued. If we had been studying textbooks for other adult learners, such as are used in the Civil Service or in so-called evening classes, the Direct Method would have been much better represented. As to the case of Code-Learning, we might assume that a comparatively new theory has not yet had the time to put a popular textbook on the market. Politzer noted this lacuna in 1970 (with special reference to the cyclic dimension). It is intriguing, however, that the situation should still be unchanged more than five years later.

Another intriguing feature is the presence of no less than six Grammar-Translation type books. True enough, one of them (6) was included in the study as a kind of control: it was published in 1957. Most of the others date from the 60's, but one (12) is very recent: 1973. All of them (except 6), advertise themselves as very up-to-date and "linguistic." The introduction of the 1973 textbook claims to "... combine the more widely accepted features of modern audiolingual instruction with a more traditional approach."³⁰ We can see here a not unusual tendency among authors to reuse the kind of presentation they are familiar with, only dressing up the rationales a bit. It is to be noted that several of these books are reissues of older copyrights in which fewer changes were made than is claimed by the introduction.

Among the orthodox AL group, most titles are again from the 60's, except 10 and 13, respectively published in 1971 and 1974, but also

reissues of older versions. Both claim extensive changes hardly supported by the facts.

After analysis of the stright AL, DM and GT groups, six texts remain. This may confirm an opinion often expressed in the literature: now comes the time of the eclectic. As a matter of fact, even the titles assigned to a particular method are by no means monolithic. A comparison of those texts with those of the 50's, for example, will show little in common with the stiff anti-intellectual caricatures sometimes painted by the critics of the modern language book. In none of the titles reviewed were there any of the pedantic naïvetés or gross oversimplifications that the public is so fond of associating with the language class. In the 60's and 70's, a certain degree of sophistication, if not tolerance, is evident in the textbooks. You do not catch your "Audiolingualist" saying that understanding is the enemy of learning; neither do you note any claim that mimicry-memorization is useless in teaching. This is, of course, no evidence that theoretical antagonism is pacified, but, contrariwise to the linguists, professionals in the field show a much greater will to compromise and much less willingness to engage in controversial and hard-line positions. Obviously, there are two sides to this observation and it is sometimes hard to decide whether this spirit of toleration should be commended, or stigmatized for its lack of rigor.

The consequences of this eclecticism, first of all, affect the introduction of new elements and the processes of generalization. As far as the syllabus is concerned, certain habits have been contracted: even authors who are seemingly influenced by Code-Learning attitudes still insist on unfolding their presentation in such a way that their

grammatical points fall at about the same percentile as if they intended to follow the traditional pattern. This causes their books to be rated [-cyclic] and [-free].

Two notables exceptions to the above remark deserve to be noted. The first one concerns Mise en Train (14).³¹ The textbook comes close to a Code-Learning approach, except for its loyalty to inductive presentation: the explanations are postponed until homework time, since they are given, in English, in the workbook. Otherwise, the book offers the only attempt at cyclic organization found in the sample (the partitive article is studied in lessons 18, 33 and 52, instead of all at once) and is daringly free in its ordering. This liberation from accepted convention is such that, at times, one may well wonder whether this is not too much of a good thing. For instance, a reflective verb is introduced in the very first lesson. For another thing, the French verb system is upset beyond the wildest revisionist dreams (for example, moot 'dormir' is classified with the -RE verbs of class iii, which is called class ii in the book, and so forth). A last point is notable: the dialogues were entrusted to Ionesco, the famous Franco-Rumanian playwright of the absurd. This definitely puts the approach in the "semantic" camp, but sometimes meaningfulness gives in to creativity. Even though the "gimmicky" aspect of the book may grate on the nerves of even progressive educators, it certainly represents a novel endeavor.

The other exception would look conventional if Direct Method textbooks were not so rare at the college level. Parole et Pensée³² is dedicated to the memory of De Sauzé (as well as another text in the sample ((11)), but the latter reflects the Direct Method in almost no noticeable manner). And indeed, Yvone Lenard's textbook is faithful to

the spirit of the Direct Method, with its semantic orientation, its inductive presentation and the dominance of situational over grammatical ordering. Though not in opposition to the spirit of the Method, its treatment of the four skills is original: written compositions are assigned in the first lesson. Here, perhaps, is an example of eclecticism at its best, in which an experienced professional (of language teaching, not literature) shows allegiance to a definite method while enriching it from the fund of personal experience.

The rest of the sample represents less easily classifiable eclecticism. In spite of the generally high level of technical sophistication, the books reviewed here reveal to what extent language teachers have been reluctant to change their theoretical approaches. It is not so much the absence of any really orthodox Code-Learning presentation, but the persistence of the traditional, that puzzles.

In our discussion of the relationship between theoretical orientations and commercial materials, we would certainly be very naive if we considered the cogency of theories to be the only pressure. Even if a theory was universally saluted as the sole scientifically respectable position (which is not the case in our field), that would hardly be considered by the publishing establishment as sufficient cause to flood the schools with textbooks of the said persuasion. In the materials business, we have a good example of a free market economy. Much as publishers might wish to encourage modern trends in their production, they can only print what is written and sell what is bought.

A survey of the evaluation policies of the institutions of higher learning would probably reveal that textbook writing does not enjoy as great a prestige as other academic endeavors. Consequently,

foreign-language textbooks are seldom written by specialists well-informed of the latest developments in the field. On the other hand, for certain languages at certain levels at least, textbooks can be handsomely lucrative, and are often composed by confirmed specialists... of something else such as foreign literature, who have already built a career on "legitimate" achievements and can afford to take time off to enjoy some material reward. It is notably different in the case of the Teaching of English to the Speakers of Other Languages, possibly because a clear distinction exists between English and TESOL faculties, while no such dichotomy is visible within the departments of foreign languages.

From the point of view of the user, the teacher who will recommend a title for adoption, theoretical orientation may not be the paramount criterion. Obviously, many language teachers do not keep well-informed of the current state of the art. Besides, even for those who do, logistic considerations may transcend the desire for scientific correctness. In universities, first-year courses are often taught by graduate students who cannot be expected to take much pedagogic initiative and whose command of the language is sometimes limited. And, of course, there is an expensive language laboratory facility that just cannot be ignored and must be fed suitable tapes and 'media', or else the Dean will ask why the new generation of instructors cannot live with an aid that the old one could not live without. In these conditions, it appears reasonable to choose a textbook in which material control is as tight as possible, accompanied by compatible realia and a solid workbook, in the fond hope that the whole 'package' will more or less teach by itself and minimize instructor vagary.

It is clear that such a market economy works in favor of the incumbents. It is convenient for writers who are only sporadically in contact with the discipline to reiterate familiar approaches and for users to choose well-structured Audiolingual materials (or Grammar-Translation textbooks boosted with some media). The Code-Learning Approach, with its reliance upon learner intuition (and Socratic maieutics on the part of the instructor) and minimal control cannot appear as attractive to the educational technologist.

Regardless of protestations to the contrary unanimously found in the introductions, the Audiolingual Method is not whole-heartedly followed. Its rationales are appealed to, but the core of the books remain traditional. It seems that, in this domain too, "l'intendance n'a pas suivi." In a way, it is almost a blessing that the Code-Learning rationales have not been felt more widely sellable so far, for it is easy to imagine what revivals of the worst traits of Grammar-Translation would have been pressed into service in the name of Transformational Grammar!

It is informative to gauge the time lag between linguistics and language teaching. To a lesser extent, a similar lag also separates foreign language teaching from TESOL. While the professional literature is echoing with the challenges thrown at the Habit-Formation establishment, foreign language authors are still reluctant to unreservedly embrace this radical upstart. As far as the materials are concerned, the Audiolingual revolution is not yet spent, and it is difficult to tell whether it has yet to produce its best examples or whether it is doomed to imminent displacement by a newer method.

The truth may lie in another direction, however. There seems to be a growing consensus that militant reformism is not the answer to our problems. More and more critics suggest an eclectic approach that would draw from several theories. This has been for long a natural tendency with material authors and will probably continue to be so. The only caveat is that eclecticism should manifest a real desire to make use of the attributes in each theory best suited to specific problems. Barring this, an irenic compromise will fail to bring about any improvement in a field which has known better days, in spite of its ever-present relevancy.

NOTES TO CHAPTER 5

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CONCLUSIONS

CONCLUSIONS

Throughout this work, it has been suggested that the current state of foreign-language teaching could be explained by the influence of two persuasive philosophical attitudes upon linguistics and psychology: the empirical and the rationalist schools.

It is indeed our contention that, with the expiration of an intervening lag, approaches to foreign-language teaching follow the major trends of the psychological and linguistic wisdom of their time. Since empirical and rationalist thinking do not necessarily flourish at the same time we can observe differences in prominence between the schools at a given moment.

The predecessors of the orientations that prevail nowadays are the Direct Method and Grammar-Translation Method. Insofar as the hypothesis of filiation from one school to the next is correct, these are the ancestors of the modern Habit-Formation and Code-Learning Approaches. It should be said, however, that the lines of descent are not necessarily univocal.

Grammar-Translation has been a much abused doctrine, blamed by modern educators for all that was wrong with language education in the times it prevailed. It should nevertheless be pointed out that Habit-Formation did not inherit its tradition of firm material control and its occasional recourse to rules from the Direct Method. This debt is seldom acknowledged. The tenants of a form of positivism are reluctant to associate themselves with such rationalist unorthodoxies as recourse to information about the language or to a "global" strategy almost to the same degree as they would rightly refuse to condone some of the widely popularized excesses of the method.

The heritage of the Direct Method is equally ambiguous. From its choice of actual speech as the focus of instruction and its refusal to teach about the language, it can certainly be classified as empirical and identified as the sponsor of Habit-Formation. On the point of exposure control, however, it repudiates syntactically graded exercises, thus prefiguring a modern view that can be associated with none other than the rationalist school.

There is thus considerable oversimplification in the view often expressed in articles on the historical development of language-teaching methods that credit Habit-Formation to the Direct Method and Code-Learning solely to Grammar-Translation.

One of the reasons why the Direct Method and Grammar-Translation do not enjoy their past popularity any longer is that some of the explicit theoretical rationales on which they were predicated did not stand the test of change in linguistics and psychology. On the other hand, their support had already evaporated by the time modern science vindicated some of the principles really underlying them. For instance, Grammar-Translation had already foundered on the accusation of casting all languages into the same Latin grammatical mold, when the principle of universal grammar was given renewed currency. The Direct Method was often dismissed as a crude and simple-minded approach before uncontrolled exposure was once again made acceptable to scholars.

At the present time, it can safely be said that Grammar-Translation and the Direct Method are no longer considered legitimate alternatives, at least if we wish to restrict the study of foreign-language education to that of comprehensive language instruction for beginners (the Direct Method still does a brisk business in crash courses for adult travelers

of the Berlitz School type and Grammar-Translation continues to be extensively used in reading classes for students interested in technical literature and, to tell the truth, everywhere in college past the first-year level!) Grammar-Translation has been crushed beyond recovery under sarcasm and the Direct Method merits are usually reduced to a patronizing footnote in works tracing the family tree of Habit-Formation.

The two current competitors are, of course, Habit-Formation and Code Learning, representing the empiricist and rationalist schools, respectively. Proponents of each theory are certainly justified in thinking that their options supersede and update their predecessors to the point of rendering any further discussion of the past superfluous. Indeed, each of these positions constitutes a full-fledged revolution of a special kind.

The Habit-Formation Approach may claim to correspond to the Industrial Revolution of the language-teaching world. An industrial revolution is not based upon any striking revision of all the concepts of natural science. After all, steam power was known to the Greeks and used by Denys Papin centuries before the steam engine changed the economic and social face of the earth. A Watt is not an Einstein. But suddenly, all conditions are met for the practical exploitation of well-known theoretical principles and a powerfully consistent apparatus comes into being that will radically change the popular idea of how things are supposed to be done.

Likewise in language education, after centuries of independent experimentation and speculation, all the psychological principles, pattern-drill forms, philosophical rationales and dogmas of Audio-lingualism were present in isolation. It took the social, economic

and political conditions of the middle of the twentieth century to make them into the remarkably successful Habit-Formation Approach. In the industrial countries, a need was felt for investing the new affluence in programs of mass education in which, for the first time in history, the majority of their adolescent population could be accommodated. A language curriculum, which in most cases was already part of the scholastic tradition, found new urgency in the events of the recent war. This very war also provided proof that systematic mass training of specialized instructors could be achieved. Peace time industry eagerly settled to the task of supplying a rich educational technology. Habit-Formation inserted itself easily into this context: as a concept, it was no longer visionary in scope, and it was in many ways left behind by the leading edge of science in its time, but it constituted a marvelously timely, concrete, workable, popularizable and marketable model.

The Code-Learning revolution is of a quite different nature. To convey something of its originality, we shall have to place it in the framework suggested by Thomas S. Kuhn for the study of scientific revolutions.¹ Contrarily to my expectations, I was unable to locate any endorsement of Code-Learning as a scientific revolution under Kuhn's pen. The implication has, however, appeared inescapable to others such as Davis,² Searle (" Chomsky's revolution followed clearly the general pattern described in Thomas Kuhn's *The Structure of Scientific Revolutions ...*"³) and Leiber⁴ (who compares the Chomskyan breakthrough to Einstein's and Freud's).

Kuhn questions the popular idea that science proceeds regularly through the logical weeding out of hypotheses that fail the test of crucial experiments. He posits instead that science lives on the

exploitation of temporary paradigms (normal science) until those paradigms are discarded and replaced with new ones (scientific revolution) after a period of controversy and unrest. The discarding process is usually not a matter of disproving the old paradigm, but rather a change in the intersubjectivity of the scientific community. The reason why falsification is not operant is that experiments and even observational categories are not objective and interchangeable between theories. The exponents of each theory are "talking through each other" and fail to convince their opponents. Eventually, a scientific revolution (or breakthrough) occurs at a change of paradigm not because the new theory can be proved right (or "righter" than the old one), but because it promises to be fruitful in ways that the old theory could match only by overextending its apparatus beyond reasonable limits; on the other hand, some of the amenities of the old order are ignored and remorselessly abandoned.

It may sound farfetched to apply concepts of the philosophy of sciences to foreign-language education: when linguistics and psychology can hardly be considered physical sciences, the status of their educational applications must be all the more in doubt.²⁵ To which objection Petrie retorts that the vague state of education can be strengthened only by more and better theorizing.⁶ In fact, as Kaplan notes (citing Scriven), the social sciences need not feel so inferior to the exact sciences:

In place of the Social Scientists' favorite Myth of the Second Coming [of Newton], we should recognize the reality of the Already Arrived [Darwin], the paradigm of the explanatory but non-predictive scientist.⁷

However, even though a pedagogical approach can, in no way, be considered a science, any honor bestowed upon its parent theories should favorably reflect on it.

The fact is that the generative view of language, with all due reservation as to linguistics' status as a science, seems to qualify as a close equivalent to a scientific revolution, and the current unsettled field of language studies evokes the troubled situation immediately preceding a change of paradigms.

That the paradigms underlying the Habit-Formation and Code-Learning approaches are indeed different needs hardly be repeated here. Nor is it necessary to demonstrate again that the Audiolingual Method, based as it is upon a contextual ("superficial") network of relationships, cannot economically deal with semantic input. As is suggested by Kuhn, this kind of situation constitutes a typical predicament of normal science, in which the theorists try to save the paradigm by multiplying auxiliary refinements, with all the attendant loss of simplicity and elegance. Likewise with medieval astronomers, who managed to prolong the geocentric model for centuries at the cost of adding epicycle on epicycle to the planetary motions, thus laboriously accounting for observational discrepancies as they arose, whereas adopting an heliocentric oval orbit pattern would have saved them all the trouble.

But, once again, even if a generative approach represents a breakthrough, it cannot objectively be demonstrated, at least not on the grounds chosen by the other school. In the physical sciences themselves, Kuhn tells us that a scientific revolution cannot be declared using the epistemology of normal science: provided that the ancient astronomers could predict celestial motions with some accuracy, empirical testing

was unable to show that their explanatory system was not as good as the new one. In the same way, a broad comparison study will not be an appropriate device to decide between two theories of language acquisition.

Moreover, should it be necessary to repeat the caveat again, we are not dealing in this case with sciences, or objects that can be incontrovertibly measured. We are comparing educational methods, and this implies that we are compounding the epistemological difficulties with a wealth of independent, human factors that, dear as they are to the humanist, have to be called "nuisance variables" by the statistician. No wonder, then, that the broad comparison studies yield so few significant results, or that their findings contradict each other. After years of inconclusive comparisons between methods,⁸ it will be enough to take as an example a criticism of the famous Pennsylvania Project,⁹ which proclaimed to be a very peeved profession that traditional methods (Grammar-Translation) were superior to Audiolingualism:

The teachers using the traditional method had been allowed to use the language for oral practice up to 25 per cent of the time--making it already quite different from the grammar-translation method that used to be so prevalent. But, apparently, the teachers went beyond the 25 per cent, in order to preserve their self-respect, and were actually using a method which was halfway between the old grammar-translation and a very respectable direct method.¹⁰

Apart from the particular epistemological problems inherent to the domain of education, we have seen that, in spite of the voluminous literature dedicated to the refutation of each theory, little has been achieved in the way of convincing zealots to abjure their errors. This parallels the scientific discourse that Kuhn describes as "talking through each other."

In spite of this lack of conclusive results, we can still find arguments that seem to portend a change of paradigms. It is especially significant that many people of goodwill tend to open up their views to elements of the new theory, to the extent that, nowadays, it can be said that a great majority of linguists accept the views of the generative school. Another pointer, albeit negative, is that the original standard transformational theory has now sprouted branches, such as generative semantics¹¹ and case grammar,¹² not all at peace with one another, but none of which shows any sign of reverting to the bosom of structural linguistics. Finally, the very fact that school materials, for the sake of appearances if not yet in spirit, begin to recommend themselves from the Cognitive approach may militate in favor of the recognition of a breakthrough.

It seems proper to advance that the Code-Learning Approach may have achieved in the field of language education what would amount to a scientific revolution in the domain of the physical sciences. It was essential, in order to suggest something of the particular nature of the method, to make that statement. From a polemical point of view, however, the existence or even the possibility of a breakthrough does not appear as sine qua non.

Enough has been said about the Code-Learning Approach to show that, whether it were later to dominate the field or not, it will not go down in history as another false start.

Since language education has asserted itself as distinct from theoretical linguistics and psycholinguistics, a new attitude can be felt. More attention than ever is paid to the formulation of theories, at the same time as greater autonomy is exerted with respect to theoretical dogmatism.

The question, then, is not whether a breakthrough can occur, even though many would agree it has already taken place. The modern attitude of language educators is not so much one of adventism or partisanship. They are aware of the range of possibilities offered by theoretical formulations and, here and now want to select from them what can be used in an honest teaching method. It seems that the nineteenth-century view of theories as totalitarian ensembles designed to replace one another bodily has eventually given in to the more modern one of successive discoveries of discrete parts of truth that do not necessarily displace the whole accretion of previous knowledge. In the domain of language education too, the climate of the 70's is one of enlightened eclecticism rather than of doctrinaire espousal, as we have previously noted for theories, methods and materials.

Eclecticism, however, much as the profession would like to restore some peace to the theoretical controversy that has rocked it for fifteen years, can constitute a way only insofar as it has some definite direction. It would avail little that every educator choose freely from each source, if the rest of the profession operates other choices and no general trend can be found. This situation would merely illustrate the prerevolutionary unrest described by Kuhn without supplying any working proposition or clues to the coming state of the art.

A typical example of the way many educators see the shaping of the eclectic solution may be found in Diller.¹³ Selecting three problems as essential in the acquisition of a new language--the adult pronunciation block,¹⁴ the need for a large vocabulary¹⁵ and thinking in a foreign language¹⁵--Diller proposes that Mimicry-Memorization, the Direct Method (Gouin's series) and the generative approach be

respectively used in solving them. The view is obviously personal, but, with individual variants, it is shared by others, such as Rivers¹⁶ and Belasco.¹⁷

Eclecticism is nevertheless the most awkward method to plan instruction, because, by definition, it is an unchartered way in which subjective evaluation is the main ingredient. Is this a fact of nature or can we devise means to use eclecticism in an optimal fashion?

Joseph Schwab has addressed himself to the problem, which is crucial to the whole field of education. In "The Practical: A Language for Curriculum,"¹⁸ he observes that all over the field of education there exists a need for methods of translating divergent theories into applications. For lack of such procedures, many frustrated specialists escape into pure speculation and historical restatement of the alternatives. But, in spite of the general acceptance of an eclectic opinion, nobody knows by what practical rules this activity must abide.

In "The Practical: Arts of the Eclectic,"¹⁹ Schwab suggests a solution to the problem. He advocates the use of two sets of processes: the Arts of the Practical, by which the objective, particular circumstances of the concrete application (usually absent from theories) are recognized and spelled out, and the Arts of the Eclectic, by which the theories are readied for use. He then proceeds to show that, however discrete and specific, theories are usually not disprovable by facts, since they include no apprehension of the actual (unmediated by theory, that is), and thus to suggest radical pluralism rather than doctrinaire espousal of one of the contenders.²⁰

We can now see that Schwab's view of eclecticism is farther-reaching than the one assumed so far. It is no more a matter of selecting

compatible sections coming from diverse sources, but rather of frankly presenting theories as equals which satisfy different sets of requirements. The model advocated here is Polyfocal Conspectus,²¹ the form of presentation is one in which the student is asked to identify with one theory, and then with others, in order to form different views of the same subject, while being committed to none in particular.

The proposal seems to us eminently desirable, not only because it affords the student a nondirective view of the subject matter but also because it gives him an appreciation of the workings of inquiry, a boon that can hardly be considered incidental in the perspective of a liberal education.

Application of these views to the case of foreign-language education would give a renewed meaning to the concept of "cyclic" which we have used in the typologies of methods and theories. It is entirely conceivable, for example, that it could be adapted to the teaching of the French subjunctive.

In a first step, the student could be shown that, according to the structuralist model, the subjunctive occurs in French after certain contextual clues. He would then observe how immediately and easily he could construct correct French sentences. He could also discover the limits of the process by noting that some of the uses of the French subjunctive are not reducible to this system. In another lesson, the student would come back to the topic of the subjunctive, introduced this time in the generative mode as resulting from certain semantic clues. The student could then appreciate that, by using both sets of references, his command of the language is brought closer to the one enjoyed by a native.

This succinct example shows how easily the "provisional grammar" model and the "cyclic" strategy could be enriched by Schwab's interpretation of eclecticism. Having already stated our confidence in eclecticism as the path of the immediate future, it remains for us to hope that this choice will be informed by Schwab's proposal or something of this nature. Seen in this light, eclecticism would constitute a powerful approach to language teaching that would deserve to be heartily welcome. If, on the contrary, eclecticism remains a vague, ill-defined sampling event, it may constitute a danger and an easy excuse for weak and spurious rationales.

We can, at this point, express only hope. The future will show whether this hope was well-founded or whether the field of language education is doomed to the eternal Sisyphean cycle of periodic dismantlement and reconstruction from a tabula rasa.

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APPENDICES

GLOSSARY OF LANGUAGE EDUCATION

LANGUAGE SCIENCE

The multiplication of interests and uses in the field of languages leads to a division of specializations. We are going to disregard certain traditional areas connected with literature that are not relevant to this study.

Linguistics

The theoretical study of language.

Applied Linguistics

Linguistic implications for other fields pertaining to the study of man. Particularly relevant to this work is psycholinguistics, the modalities of natural language acquisition and use. Other areas of applied linguistics not of concern in this work are sociolinguistics, artificial languages, speech pathology, and so on.

Language Education

Practical applications of psycholinguistics. Foreign-language education is our main interest here. It presents a survey of instructional approaches and of the means to implement them.

Methodology

In educational research the word usually refers to experimental conditions, such as the kind of test administered, the design of the groups and the type of statistical analysis used.

Traditionally, the language literature and the courses preparing teachers for language programs make use of the word in a different way, which usage is followed in this work.

Methodology consists here in a survey of the array of devices used to carry a theoretical method or an approach into practice. It can thus be said that Grammar-Translation methodology includes paradigm, rule, word-list memorization, translation from and into the target language, and composition.

Language Technology

It supplies materials and resources to language education. It is concerned with the preparation of textbooks, realia, and the working of "language laboratories."

RATIONALISM AND EMPIRICISM IN LINGUISTICS

When Chomsky first presented the position of transformational grammar to the world of linguistics, he was accused of breaking with scientific tradition by referring to such discredited entities as innate capabilities. He then reasserted the legitimacy of his dissent from then-ruling structuralism by showing that it could be seen as another episode of the rationalism vs. empiricism controversy. Henceforth in the language literature, the Habit-Formation supporters were called empiricists and the Code-Learning proponents rationalists. Although the philosopher might rightly object to those labels that do not properly apply to the realm of foreign-language education, the metaphor seems well-taken.

Empiricism in philosophy is characterized by the axiom that man's mind is a tabula rasa at birth. All knowledge appears to be derived from subsequent sense experiences. Intuition is not a proper way to arrive at truth. Laws have no inherent character of necessity, they are merely formalizations of outcomes generally following certain states

of affairs, in a post hoc, not a propter hoc, manner. In like fashion, structuralism does not posit any innate predisposition to language in man and assigns its acquisition to imitation of the environment. Grammatical rules are not considered to have any other psychological reality than as summaries of behaviors. Meaning is but an artifact of customary associations.

Rationalism, on the other hand, recognizes the rights of "natural reason" and the autonomy of thought. In the theoretical field, certain innate ideas are posited, from which natural cognition can be achieved through the exercise of logical inference. Generative linguistics, as indicated by its name, also assumes innate language capabilities from which the rest of language can be logically generated, given the necessary corpus. Rules have here a psychological reality because they symbolize the workings of the mind, even if they do not replicate them.

LANGUAGE STATUS

Native Language and Target Language

The above concepts do not necessarily carry "ethnic" connotations with respect to the learner's history. The "native language" is not always the mother tongue. It is quite simply the language with which the student is most at ease at the time he undertakes the study of another language (target language). It often occurs (with second-generation immigrants, for instance) that the target language is the mother tongue.

Foreign Language and Second Language

Due to certain pedagogical variables, the current language literature, especially in the United States, has been led to use these phrases

in ways that differ from common usage. Both apply to a target language.

A language is taught as a second language if it is viewed as a necessary prerequisite to communication with certain communities present at the time and place of learning. Such is the case with English in courses for foreigners in English-speaking countries (called "English as a Second Language" or "English for Speakers of Other Languages," to eliminate the equivocate). It is also the case with Spanish in the southwestern United States.

A language is taught as a foreign language if no sizeable community speaking that language is available at the location of instruction. It is the case, for instance, with Russian or German in Michigan.

It is, of course, desirable even for a foreign language to aim at the communicative goals of a second-language course. The differential availability of outside resources, however, makes the devising of specific curricula mandatory.

Sometimes not only the location, but also the learner's personal history may make him a student of a foreign language rather than of a second language. An "Anglo" native of New Mexico may have as little actual access to Spanish-speaking milieux as someone from Michigan and need a curriculum for Spanish as a Foreign Language just as much.

INTERFERENCE

In psychology, interference applies to the interaction of newly and previously learned habits, often resulting in the extinction of established habits (retroactive interference) or in inhibiting the learning of new habits (proactive interference). In the language literature, interference

is nearly always seen in its retrocative aspect, as the resistance offered by native-language habits to the establishing of new target-language habits.

Overt interference applies to the use of the native language together with the target language. It is combatted by banishing explanations in the native language and translation from the language classroom.

Covert interference is a result of the student's mental translation into his native language. It is almost impossible to eradicate unless one focusses exclusively upon learning utterances and makes reference to meaning as little and as late as possible.

It can be said that philosophical differences as to learning strategies may be traced to disagreement on the nature of interference. Those who acknowledge its importance favor a Contrastive Analysis Approach. Those who deplore it hold for a strict Direct Method Approach. Nobody denies the reality of interference, but a certain number of critics prefer to view it as part of transfer, a broader psychological concept of which interference constitutes only a negative part. The tenants of this position wish to emphasize the role played by positive transfer from the native to the target language. This was the view of Grammar-Translation, and it is today acknowledged in a creative way by Selinker's construct of Interlanguage.

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