Evidence suggests that the speech behavior of language learners may be structurally organized and that the contact situation should therefore be described not only by reference to the source (SL) and target (TL) languages of the learner, but also by reference to a learner system (AL). Investigation of such learner systems is crucial to the development of contrastive analysis theory and to its application to language teaching. However, these systems also merit investigation in their own right through their implications for general linguistic theory. Experimental and informal observation of the contrastive approach in its present form reveal serious limitations, in part because learner behavior cannot be exhaustively described without reference to the AL. Theoretical and practical considerations therefore converge to suggest the direct and systematic examination of such learner speech, viewed within the general framework of the current theory. Such investigation would (1) provide attested information, of immediate utility in teaching and course development, on patterns of learning behavior for the principal structures of the target languages; (2) permit further assessment of the current suppositions of contrastive analysis; and (3) make possible a preliminary description of AL, thus progressing toward a reformulated contrastive approach. (Author/DO)
Approximative systems in foreign language learning

The language systems represented in a contact situation can be classified in accordance with their functions as follows:

1. The target language is that in which communication is being attempted; in the case of a learner it is the language he is learning, when he uses it.

2. The source language is that acting as a source of interference (deviations from the norm of the target language); it is normally the learner's native language.

This paper represents the development of ideas formulated with Francis Juhasz while at Columbia University some years ago. John Lotz and William W. Gage of the Center for Applied Linguistics have contributed significantly to these ideas and to their presentation here without, however, incurring responsibility for defects in either.

3. An approximative system is the deviant linguistic system actually employed by the learner attempting to utilize the target language. Such approximative systems vary in character in accordance with proficiency level; variation is also introduced by learning experience (including exposure to a target language script system), communication function, personal learning characteristics, etc.

For the sake of brevity, the following symbols will be employed throughout this paper:

- \( L_T \): Target Language
- \( L_S \): Source Language
- \( L_a \): An approximative system
- \( L_{a1...n} \): Indices referring to systems at successive stages of proficiency

In identifying a specific type of \( L_a \), the name of the \( L_S \) precedes that of the \( L_T \); thus "German-English" refers to an \( L_a \) typical of native speakers of German communicating imperfectly in English.

Our assumption is threefold:

1. Learner speech at a given time is the patterned product of a linguistic system, \( L_a \), distinct from \( L_S \) and \( L_T \) and internally structured.

2. \( L_a \)'s at successive stages of learning form an evolving series, \( L_{a1...n} \), the earliest occurring when a learner first attempts to use \( L_T \), the most advanced at the closest approach of \( L_a \) to \( L_T \) (merger, the achievement of perfect proficiency, is rare for adult learners).

3. In a given contact situation, the \( L_a \)'s of learners at the same stage of proficiency roughly coincide, with major variations ascribable to differences in learning experience.
The speech of a learner, according to the assumption, is structurally organized, manifesting the order and cohesiveness of a system, although one frequently changing with atypical rapidity and subject to radical reorganization through the massive intrusion of new elements as learning proceeds. As such, learner speech should be studied not only by reference to $L_s$ and $L_T$ but in its own terms as well. From the point of view of the history of $L_T$, Weinreich was undoubtedly correct in assigning interference in the speech of bilinguals, which he likens to "sand carried by a stream", to the parole of $L_T$ along with other accidental and transient phenomena unincorporated by the community of $L_T$ speakers within their communal language system. However, from the point of view of the contact situation proper, to regard these same features, as the term interference implies, exclusively as intrusive $L_s$ elements interrupting the normal flow of $L_T$ - a kind of hiccup view of language contact - is less rewarding, following the hypothesis, than viewing them first in terms of the learner system to which they pertain.

II. Evidence for the systematic nature of the stages of foreign language acquisition

In presenting evidence for the reality and structural autonomy of these $L_a$'s or approximative systems, it should be pointed out that language students, while of special interest here, represent a minority among $L_a$ users. Moreover, learner systems are by definition transient, while effective language teaching implies preventing or postponing as long as possible, the formation of permanent intermediate systems and subsystems (deviant phonological and grammatical structures). Nevertheless, it is clear that evidence for $L_a$ is abundantly present in the patterning of

1. Weinreich, op.cit., p. 11.
errors in the perception and production of a given target language by learners sharing the same native language. This regularity, in fact, forms a principal basis for the belief that a comparison of $L_S$ and $L_T$ provides information essential to pedagogic strategy. Such characteristics constitute the "foreign accent" typical of learners as well as of other bilinguals sharing the same mother tongue, i.e. speakers of the same $L_S$ attempting to communicate in a given $L_T$.

Stable varieties of $L_S$ are found in immigrant speech, that is, the speech of long-time users of $L_T$ who, often having attained considerable fluency in this language, have yet obviously reached a plateau in their learning.\(^1\) Attested examples of such speech include the regular rendition by many veteran German-English speakers of the English initial /sw/ cluster as [sv], and of the velarized variant of English /l/ in post-vocalic position as a non-velarized phone (English [swl] 'swell' > German-English [svl]). Similarly many speakers of Hungarian-English regularly omit the plural marker in enumerative phrases (three boy) but overtly indicate contingency in both the apodosis and the protasis of conditional sentences (If I would have gone I would have seen him).

Moreover the speech of members of the same immigrant groups communicating in their own native language (here German or Hungarian) often reveals the systematic and widespread intrusion of elements of the dominant language of the area (here English), with the interchange of the roles of $L_S$ and $L_T$ and the creation of new $L_A$ systems (English-German, English-Hungarian).\(^2\)

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1. Such systems have not been extensively studied. For some comments on Swedish-English, Yiddish-English and several others, see H. L. Mencken, The American Language, Fourth Edition, New York, 1949, pp. 212-222.

Another subgroup of stable La ideolects is formed by utility systems, such specialized "little" languages of limited semantic function, and requiring limited grammars and lexicons, as the systems often used by taxi-drivers, hotel-reservation clerks, bartenders and other groups with frequent but circumscribed requirements to communicate with foreigners.1

The term learner pidgin can be applied to systems of a related type often employed by language students who have attained fluency in the target language without mastery of its fundamentals, but have arrived at a stage in instruction where attention has largely shifted from form to content. Not only do teachers often concur in the use of this system, but even participate as users (the following exchanges were observed in a language classroom: Arabic-English speaker: Same? [i.e. Are the two words pronounced in the same way?], Teacher: Same.; Teacher: Short answer. [i.e. Use the short answer form.]. In conversation very good.). This variety of La is also frequently used by other LT speakers when communicating with non-natives and, apparently, even sometimes with other native speakers:

"Another brandy," he said, pointing to his glass. The waiter who was in a hurry came over. "Finished," he said, speaking with that omission of syntax stupid people employ when talking to drunken people or foreigners. "No more tonight. Close now."2

1. Little information has been collected on these systems. However, for two apparently successful attempts to construct such La systems (English-Russian; English-Mandarin) for specific, circumscribed communication requirements, see Eugene H. Rocklyn, Self-Instructional Tactical Language Course in Russian, Washington, D.C., George Washington University, Human Resources Research Office, 1965; and Catherine Garvey and Eugene H. Rocklyn, Development and Evaluation of a Tactical Mandarin Chinese Language Course, Washington, D.C., George Washington University, Human Resources Research Office, 1965.

Moreover these learner pidgins are apparently preserved in the language-types customarily designated as pidgins and creoles, historically La systems usually incorporating Lₕ grammatical elements and Lₜ lexical elements.

An argument for the structural independence of an Lₐ from the source and target systems is the frequent and systematic occurrence in non-native speech of elements not directly attributable to either Lₕ or Lₜ. In the phonology, intermediate phones are common (Hungarian subjects in an experimental study often rendered English /θ/, for example, as [ɛθ] or [sθ¹]). Similarly, "internal" interference resulting from the extension of the productive processes of Lₜ (such formations as go-ed are common in learner speech, as they are in child language), and pattern confusion (observed in a language classroom: Serbo-Croatian—English What does Pat doing now?) occurs frequently in the grammar.

More theoretically it can be argued that the demands of communication force the establishment of phonological, grammatical and lexical categories, and that the demands of economy force the imposition of the balance and order of a language system.

Finally, there has been at least one attempt to study an Lₐ variety directly. Customary descriptive procedures were employed to characterize, in sui generis terms, the phonology of a native speaker of Hungarian, at an early stage in her learning of English, attempting to communicate in the latter language. Some fluctuation between categories attested to the transient nature of the organization


(for example, two high front vowels, [i] and [i:], were sporadically distinguished, on the basis of length). However such fluctuation is, of course, also typical of categories in the process of change in normal language systems, and the analysis revealed a system exhibiting true internal coherence, with distinctive components from both English and Hungarian recombining to form phonological structures differing from those of either language (a mid-central vowel, for example, was opposed to a low-front vowel, representing a merger of E/e/ and /æ/, on the basis of rounding). Observation of the same speaker's Hungarian-English grammar disclosed an analogous tendency toward autonomous organization.

Moreover, there is some evidence that the various evolutionary stages of Lx differ not only in amount but in type of interference (using "interference" to cover both external and internal types). Earlier stages are apparently characterized by the extensive underdifferentiation (syncretism) of Lx phonological, grammatical and lexical categories, with the learner extending the distribution and (in the case of the grammar and lexicon) semantic domains of the limited number of formal elements he has acquired. Later stages are characterized by the addition, as interference types, of reinterpretation (Serbo-Croatian—English speakers allegedly often aspirate English tense stops in all positions, apparently phonemicizing a feature non-distinctive in English), hypercorrection (Spanish-English speakers often substitute [ŋ], which does not have phonemic status in Spanish, for /n/: English /son/ 'sun' > Spanish-English [saŋ]1 and analogy (go-ed).

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In addition to the atypical rapidity with which they often undergo structural changes, La's differ from normal languages in that La speakers do not usually form speech communities. Adult members of such communities normally model their speech on that of other members of the same group; children, viewed as groups of speakers of child language at various stages of evolution, model their speech on both internal standards - the speech behavior of their peers - and external standards - the speech behavior of older children and adults (for such child learners of La of course, there is no La); La speakers, however, primarily select external standards, the speech of native speakers of La. Nevertheless, it is likely that La speakers frequently provide reinforcement for the speech behavior of each other (even resulting in the creation, in some instances, of such dialects or languages as the varieties of English used by numerous speakers in India2), and it is observable that they frequently communicate with each other more easily than with La speakers. Moreover, La features e.g. sometimes disseminated among learners under special conditions (as was a trilled r substitute for the French uvular phoneme, reportedly, among one group of English-speaking learners at Middlebury College), are sometimes conventionalized in La (English /θ/ is regularly merged with /s/ in the instruction at certain schools in Germany), are sometimes transmitted between generations (the children of native speakers of Yiddish in New York, while native speakers of English, appear to frequently adopt certain interference patterns from their parents' speech), and even become conventionalized in La (during one era in Hungary, some native speakers of Hungarian snobbishly replaced the Hungarian trilled r with the uvular variety of French to suggest prior knowledge of that language and hence higher social status; c.f. also widely posited instances of substratum intrusion).

1. Other than earlier phases of their systems: see below, pp. 10-11.
2. See, for example, Ashok R. Kelkar, "'Marathi English': a Study in Foreign Accent," *Word* 13 (1957), 268-282.
III. Reasons for studying La

1. Direct and systematic examination of learner speech has been largely neglected. Classroom teachers, while aware of general patterns in learner behavior and often taking them into account in their teaching, have rarely attempted comprehensive studies of these regularities within a linguistic framework. Contrastive analysis specialists, on the other hand, often primarily concerned with techniques for establishing inter-systemic correspondences, have been content for the most part to derive empirical support for their formulations from impressionistic observation and intuition. Investigation of La data would, therefore, yield as its first result new concrete information on learner behavior of high utility to the classroom teacher in the planning of pedagogic strategy.

2. Such investigation is also a prerequisite for the validation of both the strong and weak claims of the contrastive approach:

a. The strong claim states that learner behavior is predictable on the basis of a comparison of Ls and LT. However problems immediately arising include: (i) different analyses yield different predictions, (ii) predictions are often ambiguous, and (iii) the various levels of linguistic structure are interdependent, with the result that predictions of phonic interference, for example, must take into account not only the phonologic systems of Ls and LT but their morphophonemic, grammatical and lexical levels as well. Serious attempts to validate the theory have not been numerous, with investigations not infrequently presenting ex post facto reconstructions

as evidence of predictive power. The few serious validation studies raise doubts about the tenability of the strong claim.

b. The weak claim of contrastive analysis is that of accounting for learner behavior. Even this limited claim proves difficult to support, however. For example, the frequent interpretation by Hungarian-English speakers of the final cluster of English *dogs* as *[ks]* can be explained as resulting from one, some, or all of the following factors: a) the non-occurrence in Hungarian of /gz/ in final position, b) orthography and the Hungarian phonemic rule requiring clusters uniform in voicing, c) the total unvoicing by some English speakers of final /z/, usually described as distinctively lax in English but voiced in Hungarian, and the uniform voicing rule, and d) Hungarian morphophonemic rules making the voicing of a final stem obstruent dependent on that of initial suffix obstruents other than /v/ (/hős-bon/ /hős-töl/)¹, with the Hungarian-English speakers, for one of the reasons mentioned above, having selected the English allomorph /s/ to represent the plural.

3. It can be shown that the direct examination of Lₐ is required as well by the suppositions of the contrastive approach itself. The approach is based on a general view of learning according to which prior learning affects subsequent learning, positively where the new skill coincides with one already mastered, negatively where they are opposed (positive and negative transfer). However, language structures, viewed as compendia of verbal skills, are not comparable in their entireties. Phonological elements sometimes have no counterpart in the

opposed system (the clicks of certain Bantu languages cannot be related to English phonemic categories), cultural differences clearly often make this true of lexical elements as well, and grammatical categories, too, are often incommensurate. More significantly, however, application of the theory for purposes of predicting and elucidating learner behavior often depends on what can be called the "blinding-flash" fallacy - the supposition that \( L_s \) and \( L_T \) come into total contact - so far as overlap permits - from the outset of learning, with \( L_s \) categories fusing with their \( L_T \) counterparts throughout the systems. Actually, of course, the learner's exposure to \( L_T \) is necessarily gradual. This fact entails a dilemma for contrastive analysis which can only be resolved by reference to \( L_a \). At post-initial stages of language learning, the prior learning which conditions subsequent learning includes not only the learner's knowledge of \( L_s \) but his own recent experience in language acquisition - his knowledge of \( L_a \) - as well. He is no longer the pristine speaker of \( L_s \) assumed by dialinguistic analysis, but also the user of a more recently acquired system. Thus the precepts of contrastive analysis itself force the inclusion of reference to \( L_a \) data in the prediction and elucidation of his subsequent learning behavior.¹

4. Finally \( L_a \)'s merit examination in their own right, having interest for general linguistic theory comparable on the one hand to child language and on the other to the language of victims of certain types of speech disorder, as dependent systems forming evaluative gradations toward specific languages but falling outside the normal dialectical and stylistic scope of these languages.

Summary and conclusion

Evidence suggests that the speech behavior of language learners may be structurally organized, and that the contact situation should therefore be described not only by reference to the native and target languages of the learner (L_S and L_T), but by reference to a learner system (L_a) as well.

Investigation of such learner systems is crucial to the development of contrastive analysis theory and to its applications to language teaching. However, these systems also merit investigation in their own right through their implications for general linguistic theory.

In its present form, the contrastive approach seeks (a) to predict and account for learner behavior by reference to similarities and differences between L_S and L_T and in terms of these systems, and by this means (b) to indicate a strategy for language pedagogy. However, experimental and informal observation reveal serious limitations in the approach, in part because learner behavior cannot be exhaustively described without reference to L_a.

Theoretical and practical considerations therefore converge to suggest the direct and systematic examination of such learner speech, viewed within the general framework of the current theory. Such investigation would (a) provide attested information, of immediate utility in teaching and course development, on patterns of learning behavior for the principal structures of the target languages, (b) permit further assessment of the current suppositions of contrastive analysis, and (c) make possible a preliminary description of L_a, thus progressing toward a reformulated contrastive approach of greater sophistication.
An ultimate goal might be the reformulation of $L_S$ and $L_T$ descriptions in terms permitting the accurate projection of $L_a$ throughout its successive stages in each contact situation. This goal remains in the distant future, however, and no present alternative exists to empirical investigation.

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