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ABSTRACT

The functional hypothesis of language, based on the assumption that the referential function of language is paramount, is discussed as it applies to interlanguage, the second language spoken by less than proficient native speakers of another language. The presentation includes: (1) a review of the evidence of previous empirical investigations of the functional hypothesis in various different forms of language; (2) a description of two studies of English interlanguage in two learner groups with very different first language backgrounds (Chinese and Czechoslovak) that show how little functional constraints affect the form of interlanguage; and (3) a discussion of the consequences for learners if interlanguage is indeed a highly inefficient means of communicating referential information, and the options available to learners and interlocutors to repair misunderstandings. It is concluded that interlanguage is a poor vehicle for the communication of representational information, and that this weakness is not peculiar to any one group of learners. Rather it is a feature of all interlanguage, including dialects, languages of wider communication, and pidgins and creoles. This referential function tends to require a significant amount of repair through interaction if information is not to be lost altogether. Study data are appended. (MSE)

Functional Interpretations of Variation in Interlanguage Morphology[1]

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Introduction

The question of what purpose is served by the unique symbolic system that we call language has received many different answers from scholars. Karl Bühler (1934) identified three different reasons why speakers use language: to represent states of affairs external to the speaker, to express states internal to the speaker such as emotions, and to organize social interaction through commands or warnings. These three functions--the representational, expressive, and directive--were elaborated by Jakobson (Jakobson & Halle, 1971) and later by Hymes (1974) to include at least three others: an aesthetic function by means of which speakers create artistic works through language, a meta-communicative function by means of which speakers provide information about their own attitudes toward and beliefs about what they are saying, and a ludic function, which allows speakers to simply play with words. Of all the functions that have been identified, the one which seems to be most fundamental to conventional views of language is the representative function. This may be stated as follows:

> *A primary function of language is for the speaker to communicate information about external states of affairs to the hearer.*

If language has such a function, then the question arises of how well the form of language is adapted to this function; that is, how efficiently language allows speakers to communicate representations of external states of affairs to a hearer.

The question of the efficiency of language as a conveyor of representational information is clearly of relevance to information theorists, who have pointed out (Shannon & Weaver, 1962) that an efficient means of communicating information must, first, ensure a suitable channel for transmission and, second, allow in some way for the recovery of information if part of it is lost during transmission.

Similarly, in studies of linguistic variation and change several scholars have put forward a so-called "functional hypothesis," which is based on the assumption that the referential function of language is paramount. Kiparsky (1972) in discussing phonological change proposed that "there is a tendency for semantically relevant information to be retained in surface structure" (p. 195) and Littlewood (1981) in describing motivations for variation in interlanguage claimed that "a linguistic feature is more likely to be omitted when it is redundant to the meaning being conveyed, more likely to be produced when it transmits necessary information" (p. 151).

Recently, the notions of the primacy of the referential function of language and the view that language is an efficient means of communicating referential information have come under attack. Labov (1987, in press) has argued that linguists have overestimated functional explanations of linguistic change and has claimed that speakers consistently underestimate the amount of *misunderstandings* in their daily lives that occur as a result of the communicative *in*efficiency of language.

The main intention of the present paper is to discuss the functional hypothesis as it applies to the second language spoken by less than proficient native speakers of another

language, or *interlanguage*. The presentation will be in three parts: I will first review the evidence of previous empirical investigations of the functional hypothesis in various different forms of language; I will then go on to describe two studies of English interlanguage from two groups of learners with very different first language backgrounds which show how little functional constraints affect the form of interlanguage; and the paper concludes with a discussion of the consequences for learners if interlanguage is indeed a highly inefficient means of communicating referential information and the options available to learners and their interlocutors to repair misunderstandings.

Studies Which Have Investigated the Functional Hypothesis

The area in which the efficiency of language as a means of communicating referential information has been most extensively studied is in inflectional morphology. Morphemes are the smallest meaning-bearing units of language and bound inflectional morphemes convey such meanings regarding external states of affairs as number, time, and gender. At the same time, many bound inflectional morphemes consist of a single phoneme and, as such, are highly sensitive to language-wide processes of phoneme weakening or deletion. A meaning-bearing unit which frequently disappears in speech is thus a prime candidate for investigators who are interested in the communicative efficiency of language. If the form disappears and the information conveyed by the form is not recoverable, then this will argue in favor of the communicative inefficiency of language. Alternatively, if when the form disappears in speech, the communication is modified in such a way that the information conveyed by the form is recoverable, then this will be an argument in favor of the efficiency of language as a means of communicating referential information.

In this context, the plural morpheme has been particularly well studied in various forms of language, including pidgins and creoles by Hall (1944) and Mühlhäusler (1981); romance languages, especially dialects of Spanish and Portuguese, by Terrell (1979), Poplack (1980), and Guy (1981); in Black English Vernacular by Kessler (1972); and in interlanguage by Young (1988, 1989, in press). These scholars have been fairly evenly divided over whether the data supported a functional hypothesis or not.

Hall's study of Chinese Pidgin English shows that plurals are expressed by means of quantifiers, never by means of noun inflections and often plurals are not signalled overtly and the listener is left to infer a plural meaning from discourse or extralinguistic context. Mühlhäusler, in a diachronic study of the development of plural in Tok Pisin, concurs with Hall that in the earliest stages of the pidgin, there is considerable communicative inefficiency in the expression of expression of semantic plural. However, Mühlhäusler's data on the development of plural marking through Tok Pisin's four historical stages of jargon, stable pidgin, expanded pidgin, and creole, show that there is an increase in redundancy as the language develops. In the expanded pidgin, for example, redundant plural marking by more than one element of the NP is present in enumerations, plural pronoun and noun in apposition, numerals, and quantifiers. In the latest creole stage, Tok Pisin has borrowed the English (s) plural which competes as a plural marker with the indigenous *ol*-plural, thus increasing further the degree to which plural is marked redundantly. Mühlhäusler's study

therefore argues strongly for the apparent tendency for language to increase communicative efficiency by means of increasing redundancy: and in consequence supports a functional view of language change.

Two other studies have found support for the functional hypothesis in a different historical process, that of deletion of plural inflections in a process of ongoing linguistic change. Terrell (1979) carried out an analysis of deletion of final /s/ in Cuban Spanish and included in his data were a number of plural nouns with variable (s) inflections. Terrell found support for the functional hypothesis when he observed that plural (s) on nouns was more likely to be deleted when the information regarding plurality could be inferred by a plural inflection on an adjective within the same NP. Poplack (1980) investigated deletion of the *-s* plural inflection on nouns in the Puerto Rican Spanish of residents of North Philadelphia, hypothesizing also that (s) would be deleted only when information regarding plurality was available elsewhere in surface structure. Contrary to Terrell's findings in Cuban Spanish, Poplack found that absolutely no functional effect operated within the NP: in fact she found considerable concord within the NP, with one (s) marker leading to more, but zeros leading to zeros. However, Poplack found that the information deleted from a surface structure subject was generally available in a plural inflection on the verb. The deletion of the verbal *-n* plural inflection, which, like the noun inflection was highly variable, was inhibited by functional factors the most.

While functional effects have thus been observed in plural morphology in Hispanic dialects and in Tok Pisin, other investigators have failed to find functional effects in other languages. Guy (1981) studied final *-s* deletion in Brazilian Portuguese and his findings in respect of the functional hypothesis are equivocal. On the one hand he finds that plural marking on nouns in the second position in the NP (when the noun is preceded by determiners or adjectives) tends to be retained when the first word in the NP is unmarked for plural. But on the other hand he finds two constraints which seem to contradict the functional hypothesis. First, a preceding numeral strongly favors plural marking on the noun, and second, when the NP is the subject of a verb marked for plural number, there is a weak tendency for number concord to exist between the subject and the verb, which is to say that the head noun of the subject NP retains its *-s* inflection.

Kessler (1972) investigated the deletion of (s) on plural nouns in Black English Vernacular and found that it was a function of socioeconomic factors such as age and socioeconomic class, as well as the phonological environment of the form. However, she found no evidence that deletion was constrained by functional factors.

Young carried out an investigation of variation in (s) plural inflections in the interlanguage of Chinese speakers of English and found no support for the functional hypothesis. Young investigated whether plural marking on some other element of the NP, such as a numeral, partitive, quantifier, or plural demonstrative would favor deletion of an *-s* inflection on the noun and found quite the reverse of what the functional hypothesis predicts, namely, either all markers of plurality were absent, resulting in complete loss of information, or plural number was marked on more than one element of the NP, resulting in redundant restatement of information. Young also investigated whether number concord

between the verb and its arguments was a constraint on (s) plural marking on noun subjects or complements of *be* and found no significant effect for this factor.

Thus, empirical investigations of the functional hypothesis in a number of different forms of language have so far yielded inconclusive results. If the communication of referential information is indeed the primary function of language, then it appears that evidence in support of that function is remarkably thin on the ground; to the contrary, it appears that in fully developed languages the efficient communication of referential information is at best a weak constraint on language form, while the one instance of interlanguage which has been studied so far, exhibits characteristics of a highly inefficient means of communication. However, there may be certain characteristics unique to interlanguage which lead to such a finding.

The Functional Hypothesis and Chinese-English Interlanguage

Young's findings are the strongest evidence yet against the functional hypothesis and it may be interesting to consider whether there are particular constraints on English-Chinese interlanguage that would lead to such a strongly negative finding. In contrast to the other forms of language which have been studied, such as Hispanic dialects, pidgins, BEV, and Brazilian Portuguese, interlanguage is characterized by two unique features. First, it is a system that is constrained in part by general processes of learning and of language learning in particular. And second it is highly susceptible to influence from the speakers' first language, in this case, Chinese. These two unique characteristics of interlanguage suggest two explanations for the Young findings.

The first explanation derives from the observation that a large number of (s) plurals in Young's data were attached to a closed class of lexical items which are coded as adverbials or complements and which often collocate in those positions with numerals. Such lexical items, which I call *measure words*, are abundant in the data from all speakers, for example:

> I stay Boston only only five da- *five days*
> pay rent . is . each month *seven . seven hundred fifty dollars*
> *Ten years* ago . house very low very cheap

This result may perhaps be explained by Adamson's application of the theory of mental prototypes and learning schemata to the acquisition of grammatical categories in a second language (Adamson, 1988, 1989). Adamson cites research that, in acquiring their first language, children learn grammatical rules such as that related to past tense formation in English in three stages: (a) forms learned by rote, (b) a schema for relating the rote-learned forms, and (c) a categorical rule. During stage (b) some common features of the rote-learned forms are abstracted and marked as essential for class membership while other features are marked as only favorable but not essential.

Extending Adamson's ideas to Young's finding, it is possible that plural measure words and measure expressions are more central to the morphological category PLURAL

than are other nouns. The second language learner's schema may be that measure words are prototypes of those nouns which may morphologically be marked by plural (s) in English. Hence, plural marking on this central, or prototypical, category of measure nouns is categorical. Only at a later stage of acquisition does the learner's schema extend to non-measure expressions.

An alternative explanation for the finding against the functional hypothesis is that it may be due, in part, to the effect of Chinese, the speakers' first language. Chinese is a highly isolating language in which noun plurals are marked on only the restricted classes of personal pronouns and vocatives and, in general, inflections in word- or syllable-final position are relatively rare in Chinese. The peak of perceptual prominence for the Chinese syllable is the syllable nucleus, which carries both lexical tone and distinctive vowel contrasts. In contrast, few syllables are closed in Chinese, and when they are closed, it is only by nasals or /r/. The amount of information carried by the coda of the Chinese syllable is thus considerably less than the amount of information carried by the syllable nucleus and onset. However, the word-final *-s* inflection in English is located at the coda of syllables. It is therefore likely that such a position is not perceptually salient for Chinese learners of English and thus an unsuitable element for conveying referential information. The lack of functional constraints on variation in (s) plural marking in Chinese-English interlanguage may thus be due to the fact that, for Chinese learners, (s) inflections are *not* meaning-bearing items. When acquiring plural (s) in English, Chinese learners may simply be acquiring a purely formal set of contrasts with little semantic salience.

A final explanation that may be advanced for Young's findings is that interlanguage is in fact a much less efficient means of communicating referential information than the other forms of language which have been investigated so far. We have considerable anecdotal evidence that learners have difficulty communicating their meanings to their interlocutors but no study has directly addressed the relative communicative efficiency of interlanguage in comparison with other forms of language, and it would be hasty to draw any conclusion based on a single study.

Three possible explanations therefore exist for the apparent unsuitability of Chinese-English interlanguage for the function of conveying representational information concerning number. First, the influence of a prototypical category of plural measure nouns may be unduly heavy in the data. Second, the influence of Chinese syllable structure may be to reduce the semantic salience of the plural inflection for Chinese learners of English. Finally, interlanguage in general may be a highly inefficient means of communicating referential information. These explanations are not necessarily mutually exclusive and more interlanguage data from learners with different first language backgrounds is necessary in order to decide among them. A further study which was designed with this purpose in mind is the subject of the next part of this paper.

The Czechoslovak Study

A follow-up study to Young's study of Chinese-English interlanguage was designed in order to test specifically the second of the hypotheses above, namely, that the influence of the first language of learners is important in conditioning the operation of functional constraints in interlanguage. The two languages of learners studied in the present investigation were Czech and Slovak--the two official languages of Czechoslovakia. Czech and Slovak are closely related members of the West Slavonic branch of Indo-European (Comrie, 1987) and are characterized by, among other things, extensive noun morphology. Short (1987) lists three genders and a fully developed case system comprising nominative, vocative, accusative, genitive, dative, instrumental, and locative for both Czech and Slovak. The number system is currently bipartite, singular and plural, "with just a few remnants of the old dual declension surviving in anomalous plurals, chiefly associated with parts of the body" (Short, 1987:375).

Czech and Slovak, as highly inflecting languages contrast significantly with the isolating language Chinese in respect of the amount of information which is conveyed by word-final inflections, as is shown by Table 1. The study was conducted in order to discover whether constraints on (s) plural variation in the English interlanguage of Czech and Slovak learners are the same or different to the constraints discovered by Young to operate in Chinese-English interlanguage. Specifically, four hypotheses were made about variation in (s) plural marking in the two samples of interlanguage.

INSERT TABLE 1 ABOUT HERE

First, given that a large amount of information is carried by noun suffixes in Czech and Slovak, whereas relatively little information is carried by suffixes in Chinese, it was hypothesized that Czech and Slovak learners of English would find the (s) plural inflection in English easier to acquire than would be the case for Chinese learners. In terms of the study, the first hypothesis was formulated as follows.

> **H1.** The proportion of semantically plural count nouns marked with (s) will be higher in the English IL of Czech and Slovak learners than in the English IL of Chinese learners for learners at the same level of overall level of proficiency in English, as measured by TOEFL scores.

Second, it was hypothesized that whereas functional constraints were known not to operate in the IL of Chinese learners, they would be found in the IL of Czech and Slovak learners. These functional constraints may be observed in three areas: within the NP, in concord between the verb and its arguments, and in features of the discourse. Within the NP, redundant plural marking may occur on other elements of the NP such as numerals,

quantifiers, partitive expressions, and plural demonstratives. Redundant plural marking may also occur in concord between a plural subject and a plural present tense verb, or between a plural existential expression (*there are*, or non-standard *they are*, *are*) and the noun complement. Lastly, information regarding plural number is also recoverable from the discourse when a coreferential noun has been marked with (s) in the previous discourse by the informant or by the NS interviewer. Hypothesis H2 was thus formulated as follows.

> **H2.** In cases where semantically plural count nouns are *not* marked by an (s) inflection, information regarding plural number will be recoverable from other elements of surface structure, such as (a) within the NP, (b) on the verb, or (c) other *-s* inflections on nouns in the immediately preceding discourse.

The third hypothesis was designed to test the claim made by Ellis (1985) for early IL variation in general and by Dušková (1969, 1984) for the English of Czech speakers in particular, that variation in the early stages of acquisition of a particular IL rule is not systematic or rule-governed, but is basically random behavior. As Dušková (1984) has claimed, a plural error is "a mistake in performance" or "a slip of the tongue," since the "learner's knowledge of the correct form is obvious from the fact that he does not omit the plural ending consistently, but only in some instances" (Dušková, 1984:110). Young's study found no support for Ellis's notion of non-systematic variability and showed that phonological factors consistently condition variation in (s) plural marking in even the lowest proficiency Chinese learners. Hypothesis H3 was thus constructed to test Ellis's and Dušková's claim for the data from Czech and Slovak learners.

> **H3.** Variation in (s) plural marking on semantically plural count nouns in the English IL of low proficiency Czech and Slovak learners is systematically constrained by factors such as animacy, definiteness, preceding phonological environment, syntactic function, and redundant plural marking.

Finally, the shape of the final phonological segment of the noun stem had been shown by Young to be a major factor conditioning variation in (s) plural marking in the data from Chinese learners. Specifically, vowels and stops favored (s), whereas sibilants inhibited it. It was hypothesized that this conditioning was due to such universal phonetic and phonological processes as consonant assimilation and the maintenance of a CVCV syllable structure, as well as the inhibition of geminates. If such processes are indeed universal, then they should also be observable as constraints in the data from Czech and Slovak learners. Hypothesis H4 was thus formulated as follows.

H4. Marking plural number by means of an *-s* inflection on nouns in the English IL of Czech and Slovak learners will be strongly conditioned by the shape of the final segment of the noun stem.

Methods

Data were collected by means of interviews between myself and nineteen informants conducted in Czechoslovakia in January this year. All informants were students of English at universities or *gymnazia* in Prague and Bratislava. Their ages ranged between 17 and 23. There were 11 females and 8 males, 10 native speakers of Czech and 9 native speakers of Slovak The interviews took place in a variety of settings, including the home of friends, dorm rooms, or a classroom. They lasted 45 minutes during which only the informant and the interviewer were present. All interviews were tape-recorded with full knowledge and consent of the informants. The interviews were later transcribed by the investigator.

The topics of discussion were not fixed in advance but generally included the informant's family background, the recent student demonstrations which had led to the overthrow of the Communist Party in Czechoslovakia, and the current political situation.

All informants were also given, on a separate occasion to the interview, the institutional version of TOEFL as a measure of their overall proficiency in English as a foreign language. When TOEFL scores were received from ETS, transcripts from the six informants with the highest scores, ranging between 497 and 557, and the six with the lowest scores, ranging between 300 and 423, were selected for further analysis. This was done in order to identify two clearly separate groups of learners on the basis of their TOEFL scores. The difference of 74 points between the lowest of the high proficiency group and the highest of the low proficiency group is far more than twice the Standard Error Measurement published by ETS for TOEFL. A summary of scores and (s) plural data from these 12 informants is given in Table 2. Similar information on Chinese informants in Young is included in Table 3.

INSERT TABLES 2 & 3 ABOUT HERE

The study investigates the marking of plural by means of final sibilants, which I call *(s) plurals*, on [+count] nouns in the interlanguage of learners. It does not consider irregular plurals such as *children*, *men*, or *sheep* and neither does it distinguish between the allomorphic variants of the (s) plural. For the purposes of this study the decision as to the assignment of [±count] features to a noun in interlanguage was made on entirely distributional grounds. That is, if within the speech of one speaker there exist two alternants, *Stem-s* and *Stem-Ø*, this is taken as evidence that *Stem* is a [+count] noun in that speaker's interlanguage. On these grounds, such apparent plurals as *parents*, and *United*

States were excluded from consideration since no corresponding *parent*, or *state*, was found in the data.

These tokens of semantically plural count nouns were then coded for nine independent factor groups which had been hypothesized in the earlier study to affect (s) plural marking. These factor groups included the first language of the speaker (Czech or Slovak), definiteness, animacy, syntactic function of the NP, the preceding and the following phonological environment of (s), other plural marking within the NP, plural marking on the VP, and a recoverable plural in the immediately preceding discourse.

The data were analyzed by means of VARBRUL, a multivariate procedure which enables the investigator to estimate the relative importance of a large number of cross-cutting effects on variation in linguistic data.

Results

In comparing the Czechoslovak and Chinese data, the first conclusion which may be drawn is very clear. In the Chinese data, of 1,564 tokens of semantically plural count nouns, only 65% were marked with (s). However, in the Czechoslovak data, of 1,326 tokens, a much higher proportion, 89%, were marked with (s). When this variation is plotted as a function of proficiency, as measured by TOEFL scores, it is apparent that English (s) plural is much easier for Czechoslovak learners than for Chinese learners. This is shown graphically by the scatter plot and the two regression lines in Figure 1.

INSERT FIGURE 1 ABOUT HERE

As can be seen from Table 2, the rate of (s) plural marking for high proficiency Czech and Slovak learners did not fall below 95%. Data from these learners were considered to be unsuitable for further study of variation, since there would be so few instances of (s) deletion as to make any analysis of variation impractical. The data which were used in order to investigate hypotheses H2 through H4 were the data only from the low proficiency Czech and Slovak learners and, for purposes of comparison, the similarly defined group of Chinese learners.

Table 4 shows the factor probabilities generated by the VARBRUL analysis for data from the low proficiency Czechoslovak and Chinese learners. The effect of each factor is expressed as a probability ranging from zero through one. A probability of 1.00 for a given factor indicates that if that factor is present then it is certain that plural will be marked by (s), while a value of 0.00 indicates with certainty that plural will not be so marked. A value of .50 indicates that the factor has no effect on plural marking. A value between .01 and .49 indicates that the factor inhibits (s) plural marking, with lower values indicating stronger inhibiting effects. On the other hand, a value between .51 and .99 indicates that the factor promotes (s), with larger values indicating stronger effects. Not all the factor groups had

a significant effect on (s) plural variation. These factor groups which were statistically significant at the $p < .05$ level are highlighted in Table 4. Those factor groups not highlighted had no significant effect.

INSERT TABLE 4 ABOUT HERE

It is apparent from Table 4 that several of the factor groups had no significant effect on variation in (s). First, it made no difference whether informants spoke Czech or Slovak as their first language. Second, the factor groups of definiteness, following phonological segment, and redundant plural marking in the VP had no significant effect on variation in either the Chinese or Czechoslovak data.

Of the three factor groups which were designed to test the functional hypothesis, redundant plural marking by means of an *-s* inflection on a coreferential noun in the preceding discourse significantly affected variation in the Czechoslovak data. However this group was not coded in the Young (1988) study. In the Chinese data, redundant plural marking in the NP significantly affected variation. However, the effect of both these factor groups is in precisely the opposite direction to that predicted by the functional hypothesis, that is, (s) on the noun leads to more plural marking elsewhere, while zero on the noun also leads to zeroes elsewhere. These results provide support for what Labov (1987:328) has called a 'perseverance effect' disconfirming hypothesis H2 and suggesting that when information is lost in learner's language it is lost for good.

The pattern of factors affecting variation in the Czechoslovak and Chinese data is similar, but not identical. The factor groups of animacy and the preceding phonological segment both condition variation in data from both groups of learners. However, the syntactic function of the NP affects only Chinese learners and, as we have seen, different functional factors condition variation in the two groups. Thus although hypothesis H3 is confirmed, the constraining factors are slightly different for the two groups.

Finally, it appears that the phonological environment is a highly significant factor in conditioning the production or omission of an *-s* inflection on nouns in early interlanguage. This is added evidence against Ellis's and Dušková's claims for the non-systematic nature of this variation. As might be expected, the exact nature of this conditioning is somewhat different for Chinese and Czechoslovak learners. A preceding stops favors (s) in both groups, whereas a preceding vowel favors (s) only for Chinese learners and appears to strongly inhibit (s) for Czechoslovak learners. A preceding sibilant, which would lead to the long plural in English, appears to have no effect on variation for Czechoslovak learners, while it strongly inhibits (s) for Chinese learners. The exact nature of phonological conditioning is probably highly dependent on the phonological system of the learners' first language. However, the fact that phonological conditioning is such a significant factor for learners with such different L_1 phonological systems as Chinese and Czechoslovak suggests a possibly universal constraint on variation in early interlanguage.

Conclusions

This paper began by suggesting that learners' interlanguage is a poor vehicle for the communication of representational information. The data reported here on one small part of that representational information--plural number--from learners with two very different first language backgrounds suggest that such a weakness is not peculiar to any one group of learners but is a feature of all interlanguage, at least in its early stages. Much information *is* lost and is not recoverable from the surface structure of early interlanguage.

Such a picture of the communicative inefficiency of interlanguage may cause us to wonder how it is that learners communicate such information, if indeed they do. One answer to that question must surely be that negotiation of meaning between learners and their interlocutors or the conversational modifications which have been so extensively studied by Hatch (1983), Long (1985), Pica and her colleagues (Pica, 1988; Pica, Young, & Doughty, 1987), Varonis and Gass (1985), and many others are absolutely central to the communication of referential information for learners.

This paper has provided some support for the position that misunderstandings which arise through language use are far more common than is generally believed and it has shown that this is a general phenomenon common to many forms of language, including dialects of languages of wider communication, and pidgins and creoles. The referential function of early interlanguage, however, appears to be particularly weak and calls for a significant amount of repair through interaction if information is not to be lost altogether.

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References

Adamson, H. D. (1988). *Variation theory and second language acquisition.* Washington, DC: Georgetown University Press.

Adamson, H. D. (1989). Variable rules as prototype schemas. In S. Gass, C. Madden, D. Preston, & L. Selinker (Eds.), *Variation in second language acquisition. Volume II: Psycholinguistic issues* (pp. 219-232). Clevedon, Avon: Multilingual Matters.

Comrie, B. (1987). Slavonic languages. In B. Comrie (Ed.), *The world's major languages* (pp. 322-328). New York: Oxford University Press.

Bühler, K. (1934). *Sprachtheorie: Die darstellungsfunktion der sprache.* Jena: Gustav Fischer.

Dušková, L. (1969). On sources of errors in foreign language learning. *IRAL, 7,* 11-36.

Dušková, L. (1984). Similarity--An aid or hindrance in foreign language learning? *Folia Linguistica, 18,* 103-115.

Ellis, R. (1985). Sources of variability in interlanguage. *Applied Linguistics, 6,* 118-131.

Guy, G. (1981). Linguistic variation in Brazilian Portuguese: Aspects of the phonology, syntax, and language history. (Doctoral dissertation, University of Pennsylvania, 1981). *Dissertation Abstracts International, 42,* 1127A.

Hall, R. A. (1944). Chinese Pidgin English grammar and texts. *Journal of the American Oriental Society, 64*(2), 95-113.

Hatch, E. M. (1983). Simplified input and second language acquisition. In R. W. Andersen (Ed.), *Pidginization and creolization as language acquisition* (pp. 64-86). Rowley, MA: Newbury House.

Hymes, D. (1974). *Foundations in sociolinguistics.* Philadelphia: University of Pennsylvania Press.

Jakobson, R., & Halle, M. (1971). *Fundamentals of language* (2nd edition). The Hague: Mouton.

Kessler, C. (1972). Noun plural absence. Annex to R. W. Fasold, *Tense marking in Black English: A linguistic and social analysis* (pp. 223-237). Arlington, VA: Center for Applied Linguistics.

Kiparsky, P. (1972). Explanation in phonology. In S. Peters (Ed.), *Goals of linguistic theory* (pp. 189-227). Englewood Cliffs, NJ: Prentice-Hall.

Labov, W. (1987). The overestimation of functionalism. In R. Dirven & V. Fried (Eds.), *Functionalism in Linguistics. Linguistic and Literary Studies in Eastern Europe* (vol. 20) (pp. 311-332). Amsterdam: John Benjamins.

Labov, W. (In press). *Principles of linguistic change.* Oxford: Basil Blackwell.

Littlewood, W. T. (1981). Language variation and language acquisition theory. *Applied Linguistics, 2,* 150-158.

Long, M. H. (1985). Input and second language acquisition theory. In S. M. Gass & C. G. Madden (Eds.), *Input in second language acquisition* (pp. 277-393). Rowley, MA: Newbury House.

Mühlhäusler, P. (1981). The development of the category of number in Tok Pisin. In P. Muysken (Ed.), *Generative studies in creole languages* (pp. 35-84). Dordrecht, Holland: Foris.

Pica, T. (1988). Interlanguage adjustments as an outcome of NS-NNS negotiated interaction. *Language Learning, 38,* 45-73.

Pica, T., Young, R., Doughty, C. (1987). The impact of interaction on comprehension. *TESOL Quarterly, 21,* 737-758.

Poplack, S. (1980). Deletion and disambiguation in Puerto Rican Spanish. *Language, 56,* 371-385.

Short, D. (1987). Czech and Slovak. In B. Comrie (Ed.), *The world's major languages* (pp. 367-390). New York: Oxford University Press.

Terrell, T. D. (1979). Final /s/ in Cuban Spanish. *Hispanica, 62,* 599-612.

Varonis, E. M., & Gass, S. M. (1985). Non-native/non-native conversations: A model for negotiation of meaning. *Applied linguistics, 6,* 71-90.

Shannon, C. E., & Weaver, W. (1962). *The mathematical theory of communication.* Urbana: University of Illinois Press.

Young, R. (1988). Variation and the interlanguage hypothesis. *Studies in Second Language Acquisition, 10,* 281-302.

Young, R. (1989). Ends and means: Methods for the study of interlanguage variation. In S. Gass, C. Madden, D. Preston, & L. Selinker (Eds.), *Variation in second language acquisition. Volume II: Psycholinguistic issues* (pp. 65-90). Clevedon, Avon: Multilingual Matters.

Young, R. (In press). *Variation in interlanguage morphology.* New York: Peter Lang.

TABLE 1. Redundancy and Plural Marking: A comparison of Chinese and Czech/Slovak

English	Chinese	Czech	Slovak
a student	yīge xuésheng	student	študent
two students	liǎnge xuésheng	dva studerti	dva študenti
many students	hěn duō xuésheng	mnoho studentů	mnoho študentov
some students	yīxiē xuésheng	někteří studenti	niektorí študenti
Your student has arrived.	Nǐde xuésheng láile.	Tvůj student přijel.	Tvoj študent prišiel.
Your students have arrived.	Nǐde xuésheng láile.	Tvoji studenti přijeli.	Tvoji študenti prišli.

TABLE 2. Czech and Slovak Learners: Variation in (s) Plural as a Function of Proficiency

Name	L1	No. of Tokens	No. of (s) Plural	% (s) Plural	TOEFL Total Score
High Proficiency Group					
Tibor	Cz	98	96	98%	557
Sasha	Cz	157	150	96%	507
Katka	Sl	136	129	95%	500
Jan	Cz	158	153	97%	497
Karel	Sl	61	60	98%	497
Tereza	Sl	156	141	90%	497
Low Proficiency Group					
Eva	Cz	143	113	79%	423
Richard	Cz	90	77	86%	403
Michal	Sl	80	76	95%	390
Martina	Sl	81	57	70%	357
Ludmilla	Sl	40	24	60%	343
Aléš	Sl	126	105	83%	300

TABLE 3. Chinese Learners: Variation in (s) Plural as a Function of Proficiency

Name	No. of Tokens	No. of (s) Plural	% (s) Plural	TOEFL Total Score
High Proficiency Group				
Sally	215	174	81%	573
Gu	181	79	44%	523
Rainbow	132	103	78%	513
Chang	228	178	78%	493
Jennifer	100	58	58%	480
Qian	159	130	82%	477
Low Proficiency Group				
Ai	57	35	61%	407
Pearl	89	46	52%	403
Norman	106	60	57%	373
Mary	156	83	53%	340
Wendy	64	36	56%	333
Lilly	77	39	51%	270

TABLE 4. Comparison of Factors Influencing (s) Plural Marking in English by Low Proficiency Czech/Slovak and Chinese Learners

Factor Group and Factors	Czech/Slovak Data	Chinese Data
L1		
Czech	.51	
Slovak	.49	
Definiteness		
Definite	.54	.61
Indefinite	.49	.48
Animacy		
Animate	.34	.36
Inanimate	.54	.53
Syntactic Function		
Subject	.54	.40
Object	.57	.36
Adverbial	.46	.68
Complement of be	.32	.50
Object of preposition	.52	
Preceding Segment		
Vowel	.31	.55
/r/	.60	
Sibilant	.49	.34
Non-sibilant fricative	.43	NA
Nasal	.47	.48
Stop	.63	.59
Lateral	.30	.06
Following Segment		
Vowel or Glide	.55	.59
Consonant or Liquid	.45	.43
Pause	.49	.48

Factor Group and Factors	Czech/Slovak Data	Chinese Data
Redundant Plural Marking in the NP		
Numeral	.65	.64
Partitive	.37	.40
Quantifier	.56	.39
Plural demonstrative	.26	.43
No redundant plural marking	.45	.33
Redundant Plural Marking in the VP		
Subject of a plural verb	.48	.41
Subject of a singular verb	.40	.65
Complement of are/were	.64	.32
Complement of is/was	.41	.53
Redundant Plural Marking in Discourse		
Yes	.78	
No	.46	
Yes, with opposite number	.35	

Note. Factor groups in Table 4 in which the factor probabilities are highlighted are significant at the $p < .05$ level. Other factor groups are not significant.

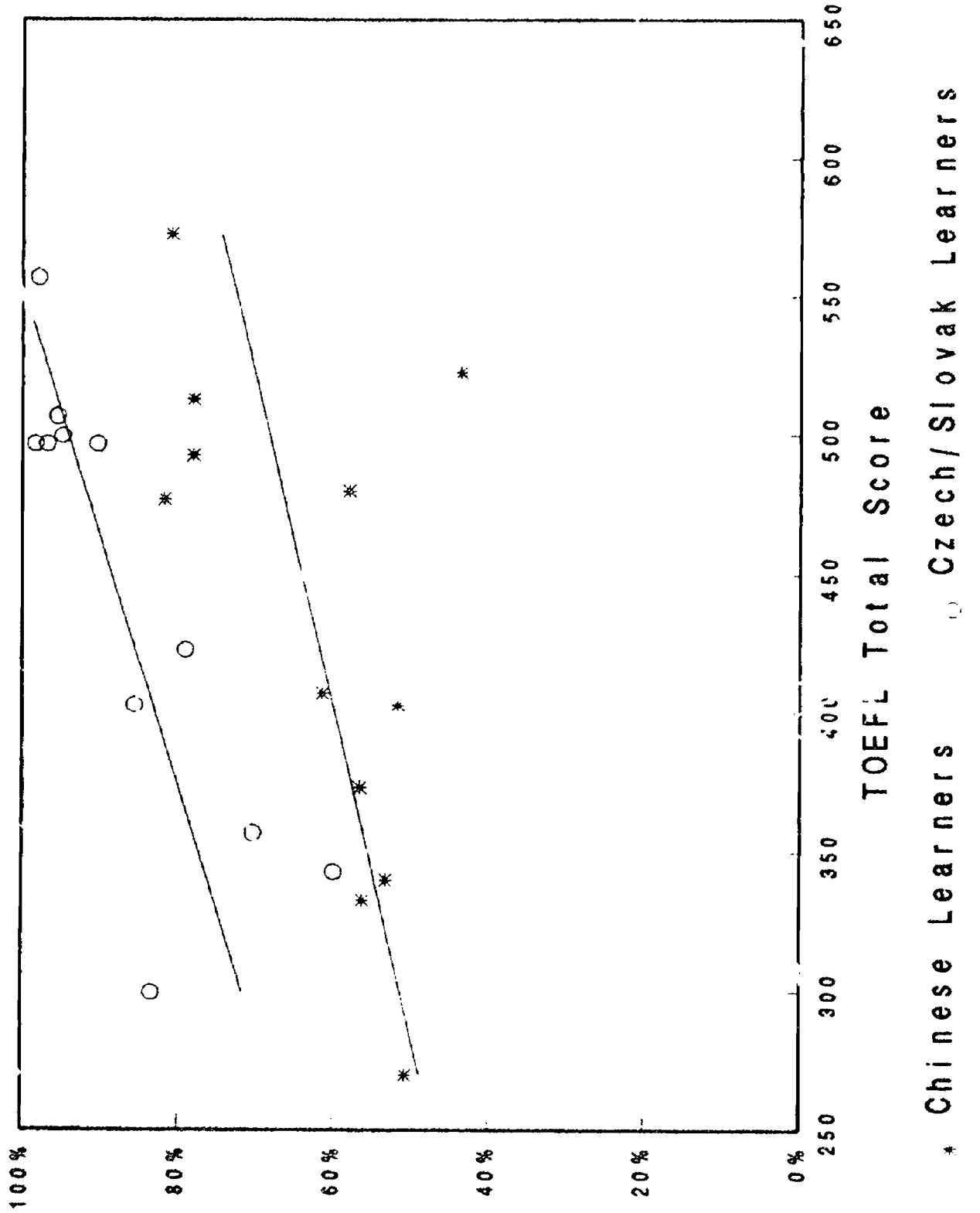

Figure 1. Acquisition of (s) plural as a function of proficiency: Comparison of Chinese and Czech/Slovak learners.