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Interactions between Language Acquisition and Language Loss among Multilinguals

Introduction

Multilingualism may pose special concerns to new immigrants in the process of learning the language of their new environment. Growing dominance of the target language may come at the expense of the speaker's prior languages.

Members of a group of well-educated multilinguals, new immigrant EFL teachers participating in a retraining course, faced a serious dilemma. On the one hand, these people felt a strong need to acquire high Hebrew proficiency as rapidly as possible. On the other hand, they frequently found themselves switching unintentionally into Hebrew while talking English and were afraid that Hebrew was "taking over" their English. They wanted to know how to combat English attrition. One member of the group said that she thought she should stop working on her Hebrew so she wouldn't lose her English. But could she afford to do so? Another tried to think of reasons why this was happening to her. Was it because she had never formally learned Hebrew, but had rather acquired oral proficiency through exposure and the need to communicate with the people around her?

Questions raised by this group of immigrants inspired the present study in which involuntary code switching and FL loss are explored. Despite its limited scope, disciplined data collection and qualitative analyses could shed light on variables that interact with attrition and acquisition of nonnative languages among some multilinguals. Findings might be generalizable to wider populations in different sociolinguistic contexts.

Literature Review

Code Mixing and Code Switching

Speakers who share more than one language often mix languages in varying degrees when communicating with one another. This phenomenon, coined in the literature as code switching (CS) and code mixing (CM)[1], is the subject of several studies cited below. These studies focus on use of these strategies by (1) speakers sharing knowledge of more than one language and (2) language learners.

In the first instance, CM and CS serve discourse functions, enabling bilingual speakers to take advantage of both language systems. The use of CM and CS may also serve *a social function affecting interpersonal relations and communicating a sense of* social unity and belonging within groups of bilinguals. In the case of language learners, CM and CS may be used to compensate for gaps in the speaker's TL proficiency or as a learning strategy.

Whereas many researchers use the terms interchangeably, Olshtain and Blum-Kulka (1989) make the following distinction: CS refers to instances when speakers alternate higher level constituents from different codes or languages that are at least *grammatical clauses or sentences. CM refers to the insertion of smaller units of one* language, e.g. words or idiomatic expressions into sentences of another language. Other researchers use the terms interchangeably. Likewise, no distinction is made between CS and CM in the current study.

Language Status and Other Predictor Variables

The importance of language status becomes apparent in several studies investigating various types of intentional CS and CM.

"Hebrish"

Olshtain and Blum-Kulka (1989) investigated a special variety of English/Hebrew mixture that is commonly used among American-Israelis - "Hebrish". The predictor variables under study were (a) language status, (b) L1 and L2 proficiency, (c) outsiders present at the time of the conversation, and (d) domain.

Dinner conversations of eleven families living in Israel from nine to fifteen years provided the data-collection framework for this study. Due to the high status of English in Israel, parents maintained their English and helped their children achieve a high level of English proficiency. Thus, conversations among family members were predominantly English with Hebrew CM, with parents scaffolding for their younger children to enrich their English vocabulary. Children showed an interest in achieving a high level of English, e.g. cooperating with parents' scaffolding, reading English for pleasure and playing language teaching games with younger siblings.

It is interesting to note that family members generally addressed the technicians filming the dinner conversations in Hebrew, even though these outsiders were fluent in English. Thus, talking their special variety of English/Hebrew among themselves seems to express a sense of social unity felt by American-Israelis as opposed to how they feel when communicating with non-American Israelis.

The ambivalent status of English in Mexico and Chicano communities in the US

A study of English-Spanish CS focuses on the role of language status (McClure, 1992). CS found in literary, political and news magazines in Mexico is compared to oral CS found in conversations in Chicano communities in the United States. Significant syntactical and pragmatic differences were found. In the Mexican press, Spanish is the matrix language, whereas in Chicano CS the matrix language is not always discernible. In the Mexican data, CS has limited pragmatic function and is more restricted syntactically. Several explanations are offered. The written channel addresses an anonymous audience and is constrained by a negative attitude toward the type of CS found in the Chicano communities in the United States. Furthermore, English is used in the Mexican press for precise imagery and to create a sophisticated tone and to attack American politics and values, reflecting the ambivalent status of English in Mexico.

The symbolic domination of English in Hong Kong

A recent Hong Kong study (Lin, 1996) reveals once again the powerful effect of language status upon CS. The historical and socioeconomic context of classroom CS was investigated through empirical analysis of teachers' and students' instances of CS. The researcher concludes that classroom CS is the local pragmatic response to the symbolic domination of English in Hong Kong schools.

Thinking Processes Reflected in CS and CM

A different line of research focuses on the thinking processes involved in CS and CM.

Voluntary and involuntary mixing of languages

Selinker and Baumgartner-Cohen (1995) investigate the occurrence of CM in multiple language acquisition. Their claim is that there is interlanguage logic in the mixing of languages. They identify three cases in which interlanguage transfer is *likely to occur*: (1) when lexical substitution "makes sense to the learner", (2) when there is phonetic physical similarity, and (3) when the substituted word exists and is known to the learner. In addition, they suggest that the word must probably be in (4) the same functional class. It is important to note, however, that interlanguage transfer may be totally involuntary. Fragments from Selinker's longitudinal diary study of his own attempted learning of German provide such evidence. In one diary entry, Selinker wrote that it had been pointed out to him by a colleague that a lot of French appeared in his German. French was a SL he had learned many years earlier, in high school, and that he used frequently for communication.

> "From my point of view, this is an entirely involuntary entering into my interlanguage German of elements from MY interlanguage French. Note that all of this is 'on-line' and is thus domain bound and would not happen, I predict, in rehearsed speech or where there is time to edit, etc."

Selinker and Baumgartner-Cohen conclude that one can discern "interlingual identifications" (Weireich, 1953) in the mixing and merging of interlanguages in multiple language acquisition, which Weireich considers the basic learning strategy in interlanguage creation.

Inner speech

The language of inner speech of multilinguals is investigated by Cohen (1995). Empirical data collected from a mini-survey provides insights into factors that influence planned and unplanned choice of the language of thought.

Various reasons prompt learners to choose their language of thought. On the one hand, they may decide to warm up or rehearse the TL "in their heads" before speaking. They may also consider it beneficial to think in the TL while speaking fluently.

Yet they may prefer to think in their L1 to learn grammar rules, and in an LO (other language) in devising mnemonic devices for learning new TL vocabulary because of phonetic similarities of the LO to the TL.

The study proposes several explanations for unplanned or unintentional CS. Words from a more proficient language may emerge in the TL unintentionally. A memory of a person or situation sometimes triggers CS to an associated language. Recurrent situations sometimes cause reprocessing of thoughts and subsequent responses in prior languages rather than in the intended TL.

As to the role of TL thinking in improving language ability, the empirical data reveals benefits from making an effort to think in the TL. Further research could clarify exactly what is meant by thinking in the TL, and then the qualitative and quantitative differences in the amount of TL thought on learning outcomes could be investigated (Cohen, 1995).

The Language Acquisition – Language Attrition Continuum

Speakers engage in CS and CM to enrich their conversation or to compensate for interlanguage deficiencies while learning a language. These reasons are equally relevant in the case of language attrition.

In discussing FL or SL attrition, we must distinguish between inadequate acquisition and true language loss. Attrition refers only to cases in which individuals are currently less competent in the language than in the past (van Els, 1986).

Cohen (1986) investigates the processes of learning, forgetting and retrieving FL vocabulary. Drawing on psychology, forgetting is the product of interference. Two processes are responsible for forgetting, one resulting in temporary loss, the other permanent: (1) "response competition" whereby memory associations are suppressed but not erased, or (2) "associative unlearning" whereby new memory associations erase prior associations.

Continual TL exposure can be expected to help improve language skills including vocabulary acquisition. Conversely, discontinuation of exposure may result in blockage. Retrieval is possible as long as memory associations are suppressed rather than erased.

Learning and remembering words in a SL

Cohen reports findings from two earlier studies (Cohen & Aphek, 1980 and 1981)

investigating the use of mnemonic and nonmnemonic devices in learning vocabulary. The subjects are English speakers learning Hebrew. In the first study students were instructed to learn words of their choice "however they wanted to". It was found that an associational device in learning contributed to the retention of vocabulary, regardless of students' class or proficiency level. Nine types of associations were reported, five mnemonic and four nonmnemonic. In a follow-up study students were first trained in generating both mnemonic and nonmnemonic associations. Then they were asked to select words they wished to learn and to generate associations from a given list of two mnemonic and six nonmnemonic devices compiled from findings in the first study. Results of the follow-up study indicate that students remembered words best at intervals over a five-week period if they continued to use their initial association rather than switching associations. Also, the most popular device entailed noticing the structure of part or all of the word.

Cohen offers two explanations for learners' preference for structural associations: (1) Hebrew FL teachers tend to stress structures, and (2) the training session was too short for the students to feel well versed in generating cognitive mediators for use in mnemonic associations. It should be noted, however, "that mnemonic keyword approaches are actually intended to be used for those words which do *not* lend themselves easily to structural or some other form of nonmnemonic association" (Cohen, 1986). Thus, a more objective explanation for students' preference for structural associations could be that the words on the students' lists lent themselves to structural associations, and so mnemonic associations were less called for.

SL attrition among bilingual children in changing linguistic environments

Unlike Seliger, who investigates language attrition of a first or primary language at the onset of bilingualism (Seliger, 1985), Olshtain is interested in SL attrition among bilinguals.

Olshtain investigates the roles of age and L1 interference as well as the order of SL attrition in a series of studies over several years. The subjects are Hebrew speaking children (5-14 years) in Israel suffering attrition of near-native ESL proficiency previously attained in English speaking countries.

In one study (Olshtain, 1986) data was collected in three phases. In the *first phase* entailed a longitudingal study extending over one year. The subjects were 12 children who had just returned to Israel after an extended stay in an English speaking country. A native English speaker investigator met the children once a fortnight and

used various elicitation techniques developed for the study, (reported in Olshtain & Berman, 1981; Berman & Olshtain, 1983) e.g. semi-structured interviews, open conversations, games and descriptions of pictures. The *second phase* entailed developing oral and written tests based on the longitudinal study in phase one. These tests were administered to a new group of eighteen Israeli subjects aged 6 to 14 years, who had also returned from an extended stay in an English-speaking country. The tests were given twice, six months and again nearly one year after their return to Israel. The *third phase* was carried out with a new group of eleven children aged 5.5 to 14 years returning from an English-speaking country. A native English speaker investigator held open conversations to collect personal information about the children's attitudes, reading habits and language use. Written tests developed in phase 2 were given to the older children who had reading and writing abilities. Younger children were given oral versions of these tests.

Results show that SL attrition was more severe among the younger children (5-8 years), who had not achieved literacy skills in English. Not being competent readers, they had less contact with the language after returning to Israel. The younger ones also expressed a less positive attitude toward maintaining their English in Israel than the older children (10-14 years). The older children reported reading English for pleasure and maintaining contact with English at all opportunities.

Conclusions from this study are as follows:

The null hypothesis regarding order of attrition is rejected. Younger children in the study, who indicated unstable mastery of irregular verbs at the initiation of the study, tended to apply strict regularizations to all irregular verbs after a period of attrition. Thus, "forms and functions not fully acquired by the onset of attrition will be attrited first" (Olshtain, 1986).

The null hypothesis regarding the interference of a dominant language on the language is also rejected. Throughout all phases of the study, errors were obviously linked to L1 transfer strategies. Investigation indicates L1 interference in formal, discoursal and pragmatic features. Olshtain suggests that in the particular context of this study, pragmatic features may be attrited first because of typological differences between Hebrew and English.

Summarizing several years of work on SL attrition

In a later article, Olshtain (1989) expands on predictor variables investigated in earlier attrition studies (Berman & Olshtain, 1983; Olshtain, 1986; Olshtain & Barzilay then in press, Seliger then in press): (1) *age* interacting with other personal variables, e.g. level of literacy, attitude and continuing exposure and use of English,(2) *sociolinguistic features*, e.g. status, prestige, availability and overall dominance of the two languages in the attriter's life, (3) *input variables,* e.g. accessibility and use of the two languages and resulting amount and nature of language feedback, (4) *linguistic variables*, e.g. the shared and non-shared typological features of the two languages in question, and (5) *production variables*, e.g. separating production abilities from reception abilities, and oral versus written channels.

Work on SL attrition over several years have led Olshtain (1989) to the conclusion that attrition is not merely the reversal of acquisition. (1) The level of stability of an individual's knowledge of a structure seems to be crucial to attrition. Forms or pragmatic distinctions that show variability in a learner's use are more easily lost than others when positive feedback is severely reduced. (2) Significant differences between the two languages might explain why certain areas are more susceptible to attrition. In the case of Hebrew and English, four such areas include (a) pragmatic word order, (b) gender, (c) verb + participle, and (d) prepositions.

Both SL and L1 attriters apparently suffer from reduced ability to retrieve lexical items. When this happens, several options are available: (a) the abandonment strategy, (b) mixing or switching to the dominant language, (c) paraphrase or circumlocution, and (d) exercising a conscious and systematic memory search for the missing item. In Olshtain's studies, younger children tended to opt mainly for strategies (a) and (b), but occasionally used strategies (c) and (d). Older children, however, frequently used the retrieval process, which is similar to what many adult L1 attriters do.

Individuals display rather different combinations of variables making it difficult for researchers to reach conclusive results. Thus, Olshtain concludes, local, limited studies are valuable in suggesting useful working hypotheses for later larger-scale studies.

Rationale

Attrition studies generally fall into one of four categories: (1) loss of L1 in L1 envi-

ronment, (2) loss of L1 in L2 environment, (3) Loss of L2 in L1 environment, and (4) loss of L2 in L2 environment (van Els, 1986). Studies of the second and third category provide evidence of attrition resulting from reduced use or exposure to the attrited language due to a change in linguistic environment or terminated instruction (Olshtain, 1986).

The importance of the present study as that it investigates the loss of a FL in a SL environment while (1) exposure to the attrited FL language (English) is increased rather than reduced, and (2) the SL (Hebrew) is being acquired. Exploring multilingual thinking processes occurring under these special circumstances could provide interesting insights into interactions between language acquisition and language attrition where there is a struggle for dominance between non-native languages.

The Research Hypotheses

Learning an additional language may result in involuntary CS and language attrition among some but not all multilinguals. The research hypotheses are as follows:
1. FL and SL proficiency levels account for variance in FL attrition concurrent with SLA.
2. Frequency of use accounts for variance in the occurrence of involuntary CS and FL attrition concurrent with SLA among multilingual learners.
3. Cognitive styles regarding word retrieval strategies account for variance in perceived FL attrition and the occurrence or non-occurrence of involuntary CS.

The Research Questions

The research questions address the issue of variance among multilinguals in perceived CS and language loss resulting from learning an additional foreign language.
1. Does poor foreign language proficiency account for learners' involuntary CS and CM while learning an additional language?
2. Does poor proficiency in a FL cause attrition while learning an additional language?
3. Is there strong correlation between learners' reported use of foreign languages and their awareness of involuntary CS and perceptions of language loss?
4. Do learners reporting involuntary CS and foreign language loss exhibit different cognitive styles in retrieving words from those who report no such loss?

Design and Methodology

Overview

The initiative for this small scale study came from the field. Several new immigrant EFL teachers asked me, their teacher, for advice because they feared their English was at risk. Therefore, the first phase of data collection entailed probing for variables worthy of further investigation. This was done through personal interviews and an essay assignment. A small scaled experiment was also held to probe word retrieval patterns. In the second phase a questionnaire was constructed and administered.

Variables

Predictor variables are (1) level of FL (English) proficiency, (2) reported use of the SL (Hebrew) and the FL (English), (3) personal word retrieval strategies styles, and (4) motivation to maintain/acquire said languages.

Dependent variables are perceived as (1) language loss and (2) involuntary CS.

Research Design

This is a qualitative study entailing self-report and experimental data collected from a single group of multilingual volunteers by myself, a participant observer.

The Subjects

The subjects are 27 adults, EFL teachers who have recently immigrated to Israel. All are multilingual and report knowing from 4 to 8 languages each. Twenty-five are non-native speakers of English from Eastern Europe, one is from Brazil and one an English native speaker from the United States. The group is presently participating in a government sponsored retraining course that will enable the graduates to teach English in Israel.

The non-native subjects' English proficiency approximates that of advanced level Israeli high school graduates. Entrance requirements to the course entail passing a written examination equivalent to the advanced level Bagrut paper, and an oral interview to demonstrate the ability to hold a conversation in English. Subjects' levels of Hebrew oral proficiency range from very low to high.

Acquiring and maintaining high levels of both English and Hebrew are considered by the participants and instructors in the course to be essential to future success and security as English teachers in this country, therefore, Hebrew and English language instruction comprise major portions of the course syllabus.

Data Collection

Three types of data comprise the data corpus:

1. The self-report data including (1) subjects' unsolicited verbal reports, (2) solicited essays explaining and illustrating subjects perception of the problem, and (3) a questionnaire.

2. The experimental data including miscues collected from a cloze task. This cloze task was previously piloted, tested and used as one part of a data collection instrument in my study of FL processing ("Interactions between Cloze Tasks and FL Reading Processes", M.A. Thesis, 1996).

3. Data concerning subjects' proficiency levels. Evidence of English proficiency comes from three sources: (1) scores on the written entrance examinations administered by two Ministry English inspectors of the Ministry of Education at different dates in the Northern and Haifa Regions, (2) assignments and the written mid-term examination administered and graded by the teacher teaching English proficiency in the course, and (3) evaluations at mid-term for oral proficiency given by the same teacher of proficiency. Evidence of subjects' Hebrew proficiency comes from scores achieved on the written mid-term examination administered and graded by the Hebrew teacher in the immigrant teachers' training course.

Unsolicited verbal self-reports

The problem of FL language attrition coinciding with SLA was first raised by several participants in the new immigrant teachers' training course. These individuals expressed ambiguous feelings. On the one hand, they were deeply concerned and frustrated because they were losing their English, but on the other hand, they were proud of their mastery of Hebrew. They wanted advice on how to cope with the problem.

Personal interviews

One of those who originally raised the problem described her experience in detail.

Others volunteered personal information upon occasion, e.g. when Hebrew emerged in private conversations with me. I reported these pieces of evidence in journal entries.

Solicited essays

Approximately one week after the class agreed to participate in the study, I substituted for a teacher who was absent. This provided a suitable opportunity to collect data in an organized manner.

First, I asked the class to write a short essay on the link between language acquisition and language attrition. I explained that their papers would provide evidence for the study they had agreed to work on with me. Instructions were to write whether or not this was a personal problem and to provide examples to support their stand. They had approximately thirty minutes to complete this task.

A controlled experiment involving word retrieval strategies

An experiment was also held during the session described above. This experiment involves cloze, translation and recall tasks followed by a short retrospective report on mental CS.

The cloze task

The cloze passage is an expository text of 491 words from which 20 global items were deleted. The passage is one of six parts of a data collection instrument which was originally piloted, tested and used in an experiment with 200 high school students for my M.A. Thesis (1996). The purpose of the cloze task in the current study was to reveal patterns in subjects' word retrieval strategies through miscue analysis. This instrument was expected to suit the subjects' proficiency level, which had been assessed as equivalent to advanced Bagrut standard upon entry into their new immigrant teachers' training course.

Translation task

Findings in my M.A. study show a significant correlation between scores on the cloze and a translation task, performed with the cloze text in hand. Correlation between scores on the cloze and recall are not significant. Therefore, in the current study I asked subjects to begin translating the passage into Hebrew once they finished the English cloze task.

Subjects voiced strong objections saying that their Hebrew is inadequate, and so the task was terminated after a few minutes. Most did manage to write several lines in Hebrew before the activity was interrupted.

Recall task

Following the translation task, subjects were asked to recall the passage in English. They did so without referring to the original text for approximately ten minutes.

Retrospective report on mental CS

Before handing in the papers, subjects were asked to write down whether any Hebrew words came to mind while they were recalling the passage.

Questionnaires

A questionnaire was constructed to collect data on subjects' linguistic background and self-perceptions concerning their levels of proficiency and use of various languages. It was handed out and completed in class at the beginning of a regular lesson.

This instrument reflects opinions expressed in the subjects' essays and in the research literature (Selinker, 1995; Cohen, 1986; Cohen, 1995).

The first section of the questionnaire asks for the number of languages a subject knows, the order of their acquisition, perceived levels of oral and literacy skills in each language, and information concerning how each language was learned/acquired and practiced. The second section contains Likert scales to investigate a subject's perceived use of his/her L1, English and Hebrew. In the third section attitudes are tapped by contrasting preferences for Hebrew or English and time devoted to studying English (the FL) and Hebrew (the SL).

The questionnaire is displayed in Appendix 1.

Analysis

Analysis of the subject data

The qualitative data collected from essays and questionnaires are coded for subsequent statistical analyses, including correlation and Chi Square tests.

Correlation and Chi Square tests are applied to two sets of subject data: (1) coded self-report data collected from the essays and questionnaires, and (2) scores on English and Hebrew exams.

Miscue analysis

The miscue analysis instrument used in the present study was originally constructed, tested and applied to data in my M.A. study (1996). In the present study, miscues are assigned the same codes as in the M.A. study. Additional miscues not appearing in the original data corpus are coded according to the original criteria. This data is recorded and analyzed using Microsoft Excel (5.0) data analysis tools.

The miscue analysis instrument

The miscue analysis instrument is made up of four scales inspired by Dubin and Olshtain's study (1993) on textual support for word retrievals and Goldsmith-Phillips' study (1989), which tested the interactive-compensatory hypothesis posited by Stanovich. This instrument reveals evidence of a learner's (1) use of high-level (idea driven) and low-level (data driven) mental processes, (2) awareness of linguistic features (syntactical and semantic) inherent in the text, and (3) adherence to linguistic constraints in producing output (response items).

The miscues items are coded for each of four scales: (1) semantic network, (2) syntactic acceptability, (3) semantic acceptability, and (4) apparent retrieval strategies. The coded miscues are subsequently recorded into collapsed categories to indicate cognitive orientation as follows: (1) focus on local clues, (2) idea driven strategies, (3) focus on global clues, (4) choice of correct semantic network, and (5) choice of related semantic network.

Scoring, recording and analyzing responses on the cloze task

In the current study, one of the four original cloze tasks was used: the expository text with global deletions. The data was processed as follows:

Step 1: The cloze tests were checked. All response items fitting the text both semantically and syntactically (regardless of spelling mistakes) were marked correct.

Step 2: Each subject's miscues and their coded equivalents were recorded in a spreadsheet (Excel 5.0).

Step 3: The coded miscue items were recorded into the five collapsed categories.

Step 4: Frequencies, percentages and Chi Square tests were computed to reveal trends in subjects' cognitive orientation.

Results

The First Hypothesis

FL and SL proficiency levels account for variance in FL attrition and involuntary CS concurrent with SLA.

> 1. Does poor foreign language proficiency account for learners' involuntary CS and CM while learning an additional language?
> 2. Does poor foreign language proficiency account for attrition while learning an additional language?

An objective measure of language attrition

Scores on the entrance and mid-term examinations were compared for an objective measure of English attrition. Data on both examinations were available for 18 subjects in all. The distribution of scores shows no relation between objective and subjective assessment of attrition. In other words, results do not coincide with subjects' self-reports. Among six subjects who apparently do not sense language loss two improved their scores (2 and 10 points respectively) one had no change and three had lower scores on the second examination (-5, -6 and -9.5 points). The average loss is -1.42 points. Among 13 subjects who report language loss six received higher scores on the second exam (ranging from 1 to 12.5 points) and five lower (ranging from -0.5 to -9 points). Among those who sense language attrition, there was actually an average improvement of 1.7 points. Table 1 displays these findings.

Table 1: Objective versus subjective reports of attrition

Self-report of language loss	No reported language loss	Reported language loss
N= Subjects with both scores available	6	12
N=Subjects reporting no change in score	1	1
N=Subjects reporting higher score on mid-term	2	6
N-Lower score on mid-term	3	5
Range of deviation* between scores on entrance and mid-term examination	from -9.5 to 10	from -9 to 12
Average deviation* between scores on entrance and mid-term examination	-1.4	1.7

* Maximume=100

Perceived language attrition

Mid-term grades given by the Hebrew and English teachers for achievements on written and oral assignments and classroom tests are correlated with subjects' self-reports concerning CS and attrition. Results indicate very weak correlation throughout. Findings are displayed in Table 2.

Table 2: Correlation between language loss and language proficiency

	Reported CS	Reported attrition
Written Hebrew	0.00852	.114276
Spoken Hebrew	0.0701	.132476
Written English	0.35584	-0.02608
Spoken English	0.132842	-0.10042

The Second Hypothesis

Frequency of use accounts for variance in the occurrence of involuntary CS and FL attrition concurrent with SLA among multilingual learners.

Is there strong correlation between learners' reported use of foreign languages and their awareness of involuntary CS and perceptions of language loss?

Essays and questionnaires were analyzed to determine correlation between reported CS and language loss and (1) the number of languages known, (2) use of L1, (3) use of English, and (4) use of Hebrew. Table 3 displays the distribution of languages among the subjects that provided this information. Table 4 displays correlation of reported CS and language loss with reported use of each the three languages under investigation.

Table 3: Number of languages subjects reportedly know

N= languages reportedly known	N= subjects responding on the questionnaire
4	10
5	9
6	4
7	1
8	1
	TOTAL = 25

Results indicate low negative correlation between learners' perceptions of language loss and the number of languages they know.

Correlation is strong (1) between L1 use and reported CS and (2) Hebrew use and perceived attrition of English.

There is strong negative correlation between (1) the use of English and perceived attrition of English and between (2) the use of English and reported CS. Likewise, negative correlation is apparent between (3) reported use of Hebrew and perceived attrition of English reported.

Correlation is weak between (1) the number of languages a multilingual knows and perceived attrition and (2) the number of languages a multilingual knows and reported CS. Correlation is also weak between (3) L1 use and perceived English attrition and between (4) Hebrew use and reported CS of Hebrew in English. These findings are displayed in Table 4.

Table 4: Correlation of self-report data

N=27	N=	Perceived attrition of English	Reported CS (Hebrew in English)
# of languages known	25	-0.21	-0.31
L1 use	27	0.30	0.57
English use	27	-0.76	-0.68
Hebrew use	27	-0.76	-0.29

In addition, analysis of the qualitative data suggests potential relation between concentrated effort to acquire Hebrew and frustration arising from a sense of loss of English. Eight subjects volunteered information concerning what they do to learn Hebrew including a wide range of initiatives aimed at developing basic interpersonal communication skills. Seven of these eight subjects also reported deep concern regarding their English. Three reported that they have not had enough time to learn Hebrew yet. Of these, two reported that they do not mix languages, and one reported emergence of English in her Hebrew.

The Third Hypothesis

Cognitive styles regarding word retrieval strategies account for variance in perceived FL attrition and the occurrence or non-occurrence of involuntary CS and CM.

> Do learners reporting foreign language loss exhibit different cognitive styles in retrieving words from those who report no such loss?

Descriptive statistics were applied to the recoded miscue data collected from non-native English speakers in order to reveal differences between subjects who reported foreign language loss or involuntary CS and those who reported that they had no such problem. The data is grouped according to subjects' reported language loss and/or CS. Percentages indicate distribution of the recoded miscue data for each group. Distributions are displayed in Table 5.

A Chi Square Test was computed to reveal interactions between cognitive trends in context bound word retrievals and reports of involuntary CS or perceived attrition in English. The Chi Square Test result: $\chi^2=0.998$, df=3. This result is not significant.

Table 5: Distribution indicating word retrieval patterns on cloze tasks

Subjects: N=	Reported FL loss 15		Reported no FL loss 7		TOTALS 22
	N=	mean	N=	mean	N=
Focus on local context	(71)	0.24	(27)	0.19	(98)
Use of global strategies	(31)	0.10	(18)	0.13	(49)
Idea-driven miscues	(4)	0.01	(5)	0.04	(9)
Blanks	(2)	0.01	(2)	0.01	(4)
Correct items	(192)	0.64	(88)	0.63	(280)
TOTALS	(300)	1.0	(140)	1.0	(440)

Discussion

Summary of the results

This study provides interesting evidence of multilingualism in flux while two unstable non-native languages compete for dominance. This complex process proves to be a disturbing and frustrating experience when speakers feel they lack adequate control over the languages they use.

Predictor variables

Personal and sociolinguistic predictor variables investigated by Olshtain (1986, 1989) are relevant to this current study.

Personal variables: Olsthain's findings (1989) indicate strong interactions between age and other personal variables, e.g. level of literacy, attitude, being exposed to English and continuing to use the language.

In studying FL attrition among adults, I have exchanged "age" with language proficiency in general, subdivided into oral and written proficiency. Olshtain's "other" personal variables are relevant to this study.

Sociolinguistic features: Olshtain (1989) posits that the high status of English in Israel and explicit national pride in Hebrew provide a sociolinguistic context in which both Hebrew and English input are available although the latter is more restricted.

Personal variables determine the strength and outcomes of this phenomenon.

The "explicit national pride" described by Olshtain is particularly evident among the new immigrants participating in the present study as discussed below.

The subjects participating in this study are multilinguals whose profession is teaching EFL although English is not their native tongue; only one is a native speaker of English. Being new immigrants, they share the common experience of a recent drastic change in their linguistic environment. For the NNE speakers, exposure to English was limited in their L1 environment; they used the language mainly for academic and professional purposes. In Israel they are exposed to far more English from the media and in the streets. Furthermore English provides an efficient temporary means of communication in the Hebrew speaking community. Still, learning Hebrew is an immediate goal for most, so that an internal conflict may take place in which Hebrew and English compete for dominance

Age

Unlike the Olshtain (1986, 1989) studies mentioned above, the present study looks at adult subjects, so that age may be related to memory capacity rather than literacy skills. This possibility was raised by L.D. in her essay[2]:

> Romanian-L1 octilingual[3]: *"I believe that if somebody complains about language attrition while acquiaring a new language is actually complaining about loss of memory which is a natural thing to happen (to all human beings) with the age. I personally feel, as a multi-language speaker that with every new language that I acquire I get a better understanding of the languages, and especially of the grammar structures of the languages I already know. If I happen to forget a bit from each language I know it's only because I'm growing old and so is my memory."*

Thus, the variable of age was also investigated. The data analysis does not support L.D.'s assumption.

Ages range from 25 to 56 years old; five are in their twenties, seven in their thirties, nine in their forties, and four above fifty. The average age of the group is 38.46 years. The average age for those who suffer language loss or complain of involuntary CS is 36.25 years, whereas the average age of those complaining of these problems is 39.56 years. The Chi Square test result: 0.0.

Levels of proficiency

The link between language proficiency and CS and perceived language attrition was tested by correlating subjects' entrance examination grades and their mid-term grades in English and Hebrew with their self-reports on language loss. An objective measure of language loss was obtained by comparing scores on the entrance and mid-term examinations. Results indicate that subjective feelings of language loss often lack objective evidence.

Several explanations are possible. First, the entrance examination scores may not be reliable. The examinations were similar but not standard in content. Furthermore, they were administered and marked by different administrators in the Northern and Haifa regions on separate occasions over a period of two and a half years.

Second, subjects' self-reports relate mainly to spoken English; only one subject reported an incident of CS involving written skills. The oral entrance examination data included general evaluations rather than precise scores, so that comparisons could not be made with the mid-term scores. Therefore, correlation was tested only for written examinations.

Third, subjective feelings of language inadequacy may be related to changes in the linguistic environment. Countries of origin are mainly the former Soviet Union (N=20), Romania (N=4), Brazil (N=1) and the United States (N=1) Thus, most probably had very little contact or use of English outside the classroom. In Israel, the higher status of English and greater exposure to native and near-native spoken English may have made them aware of language deficiencies they had not noticed in the past.

Fourth, differential mental capacities probably account for variance. An individual's cognitive capacity may very well limit retrieval processes, causing response competition to result in associative unlearning (Cohen, 1986).

Language use

Like in SL attrition studies cited in the literature review above, subjects in the current study have experienced a recent dramatic change in their linguistic environment. For example, Olshtain's findings and theoretical implications (1989) are drawn from several years of investigating the English attrition of native Hebrew speaking children who had acquired near-native proficiency during an extended stay in an English-speaking country, and then returned home to their MT environment. The

major differences are that (1) this study looks at adult attriters, and here (2) exposure to the attrited language has recently <u>increased</u> rather than decreased.

Despite the initial contradiction whereby attrition occurs with increased rather than decreased exposure to English, the data analysis reveals no serious conflict between the literature and current findings because subjects who feel their English is at risk <u>use</u> English less than those who do not. Quantitative analysis shows relatively strong negative correlation between reported use of English and involuntary CS and sense of language loss.

Qualitative data also supports this explanation. For example, in her essay about language attrition S.V. writes:

> Russian-L1 quadrilingual: *"This is a very big problem for me. After repatriation I desided not to go to school but learn Hebrew first. I put myself in sertain cucumstances/radio and TV only in Hebrew, job only with Hebrew native speakers, etc. But after 2 years such intencive successful / I hope / learning I realized that I've lost my English. How can I get it back? I'm afraid to make mistakes because English is not a new language for me. And if I speak and listen English as much as possible will I loose my Hebrew?"*

S.G. writes:

> Russian-L1 quadrilingual: *"The first time I left I was loosing my language was in ulpan ℵ The Hebrew lessons were 5 times a week from 8:30 to 2:00, and after a break for dinner at home I began to atudy again. Our teacher in ulpan reminded to us almost every day: 'If you want to know Hebrew, you have to learn it at home too, no less than 3 hours a day.'...So I was doing my best while studying in ulpan. It was difficult to make living with two children and without a salary, so I decided to give private lessons. It was surprising for me that sometimes I had difficulties in using the vocabulary. I became aware that sometimes I thought in Hebrew. Till now I try to understand why it happened..."*

G.S. has also given thought to what causes unplanned and undesired code mixing. She writes:

> Russian-L1 quadrilingual: *"I presume that acquiring a new language you are standing on the balance-board (see-saw) when the new vocabulary forces away the words you know and use in everyday life - and it*

bothers me greatly..."

L.G. expresses similar frustration:

Russian-L1 quintilingual: *"For two years I didn't use high proper correct English learning Hebrew ... When I am in any tensed situation at school and want to say a phrase in English it appears in my mind in Hebrew, so I have to spend time and translate it..."*

N.D., however, reports no frustration concerning her English. She does, however, experience occasional CM in speaking Russian, her L1. The key is apparently in her marriage and subsequent linguistic environment at home, which she describes in her essay:

Russian-L1 quadrilingual: *"Every now and then I feel like using a Hebrew word instead of a Russian one when I talk to a Russian speaking person. And sometimes I do use the Hebrew word. If I do happen to see night dreams, in the morning I realize I was talking Hebrew or listening to the Hebrew speech. Another thing I'd like to point to is as follows. My husband is an English speaker. He doesn't have a good command of Hebrew. Therefore we communicate in English. And more than often while speaking Russian to my friends or parents, I use some English words. Undoubtedly I do not do it on purpose."*

Several subjects described experiences reported in the literature whereby a multilingual's "...mind would go into a 'foreign language' mode and what would appear would be the dominant foreign language rather than the target one" (Cohen, 1995). In other words, the learner would "talk foreign" (Selinker & Baumgartner-Cohen, 1995).

A.C. writes:

Russian-L1 quadrilingual: *"...many years ago I studied German and could speak it. It was long ago and I don't really remember anything in German when I need it. But whenever I am searching for a Hebrew word (my Hebrew is really very poor) I remember the word in German. Sometimes I don't realize that it is a German word. When my hasband asks me to tell him something in German... I try hard and as a rule can not remember anything. But when I want to tell him the same thing in Hebrew I do remember the German word."*

T.W. describes her "foreign language mode" experience in even greater detail:

> Russian-L1 quintilingual: *"...When I started to learn Hebrew I couldn't cope with my English. I hoped it would be a help for me but it wasn't. When I had to speak Hebrew, I was thinking not Russian but English. The link words, conjunctions, wh-words all were English. I forced myself to change but I wasn't able to. Perhaps there is 'something' in my brain that 'switches on' when appears the necessity to use L2... But now a year passed an averse thing happened. Some days ago I was writing a letter to my brother to send it by Internet (that's why in English) and I couldn't get rid of Hebrew. I was thinking Hebrew (not Russian) and was translating into English."*

Cohen (1995) suggests several factors that apparently determine unplanned mixing of language's, e.g. a memory of a person, situation, word or concept, or greater proficiency in another FL than the TL. The self-reports collected for this study indicate that subjects are often aware of the role of language use, dominance and proficiency in their involuntary switching between languages. Perhaps evidence of additional factors would have emerged had more specific questions been asked in the data collection.

Attitude

The role of attitude in the play for dominance in a speaker's multilanguage repertoire is apparent in several subjects' self-reports. Attitude is particularly salient in the essay written by M.Z. She writes:

> Russian-L1 septilingual: *"I am in Israel for two years. I was well aware of the difficulties awaiting me here. So I started to learn Hebrew in Russia a year before I came to Israel. From the first days I felt very glad I understood what people were talking about and even took part in very simple everyday conversations. Two ulpans which I finished during the first year in Israel made me more sure in my Hebrew. I did my best to listen only to Israeli radio and watch only Israeli T.V. I did it consciesly. I felt proud I came to Israel, it was my father's dream, which did not come true. I wanted to become part of the country and of the people as soon as possible. I took evry opportunity to talk to different people whenever and wherever possible. I read Hebrew newspapers, as far as my language allowed me. I listened to people talking in the streets, in the*

buses, in the market. I tried and remembered the words and expressions children used. I read a lot of children books and even learned them by heart and told them to my neighbour's children. Everyone praised me and I was proud of myself too. Some people from Russia told me that Hebrew "pushed out" English from their memory, but I thought it can't be true. Very soon I started to give private lessons and used my Hebrew as often as possible, though my pupils were from Russia. And suddenly I discovered that - without meaning it - when I am going to speak English a Hebrew phrase 'jumps out' of me. It embarassed me so, that I began to control myself, but it became worser... I am really worried."

At the other end of the attitude continuum is A.K., who writes:

Roumanian-L1 septilingual: *Attrition "is not a problem for me, because my Hebrew knowledge is still very poor... It is my fault, of course. The first problem is lack of time. I'm busy all day, so there is very little time left for learning (at night I really can't acquire things); the other problem is – however funny it might sound - the knowledge of English. Usually I speak English everywhere because it's much easier for me to communicate this way, to express my thoughts, ideas, wishes. But even if my knowledge of Hebrew grows I don't see any problem in acquiring it (without clashes among the languages I know)."*

Channel

The self-report data collected from both the essays and the questions following the cloze and recall task experiment indicate that speech is more prone to involuntary CS or CM than other channels. In the essays, mainly problems occuring in oral communication are described. In answering the explicit question following the cloze task experiment, only one Russian-L1 responded that Hebrew words had come to mind while completing the cloze task. No nonnative English speakers reported that English had come to mind while writing their recalls in Hebrew, or Hebrew while writing their recalls in English. Only the native English speaker wrote[4]:

English-L1 quadrilingual:

"Hebrew never once crossed my mind while writing

in English, except

if I had struggled with translating a Hebrew word,

I recalled it (example: charismatic.)"

These findings coincide with Selinker's diary entry in a longitudinal study of of multiple language acquisition (Selinker & Baumgartner-Cohen, 1995) "...this is an entirely involuntary entering into my interlanguage German of elements from MY interlanguage French. Note that all of this is 'on-line' and is thus domain bound and would not happen, I predict, in rehearsed speech or where there is time to edit, etc."

Variance along the orality-literacy continuum

The feeling that "Hebrew is overtaking" English apparently comes from unsuccessful word retrievals which occur mainly in conversation. The one report of written CS occured in corresponding by E-mail and not on the translation task in the experiment. Thus, position along the orality-literacy continuum accounts for variance in involuntary CS. Spontanity in spoken language may result in cross-lingual word retrievals by drawing on multilingual resources, whereas the permenancy of written discourse may provide stability that restricts word retrievals to the target language resources. Growing dominance in the SL and diminishing FL skills alike apparently remain within the domain of interpersonal communication, whereas literacy skills remain unaffected.

"Hebrish"

Many American-Israelis mix Hebrew and English in conversation. This special mix has been coined "Hebrish" and has been found to serve pragmatic, textual and discourse functions. Speaking "Hebrish" among themselves seems to express a sense of social unity felt by American-Israelis as opposed to how they feel when communicating with non-American Israelis. By speaking "Hebrish" they benefit from the resources of both language systems. (Olshtain & Blum-Kulka, 1989)

The native English speaker in the group reports that her conversational Hebrew is good and she does not mix languages. She also reports that she does not speak English with friends, apparently not mixing socially with English speakers. However, she deliberately inserted a Hebrew word on an English test to fill a lexical gap. This may be an indication that in the future, if M.H. begins to mix socially with American-Israelis, she, too, will take advantage of the rich resources of the double system of "Hebrish".

Cognitive style

The experiment entailing cloze, bilingual recall and self-reporting was held in an attempt to probe cognitive processing.

Word retrieval strategies

Assuming that involuntary CS is the outcome of a misdirected word search, I decided to investigate cognitive trends on a structured word retrieval task. Thus, the cloze and recall task experiment was held, miscues were analyzed and statistical procedures applied.

Results provide no support for the hypothesis that cognitive styles regarding word retrieval strategies account for variance in perceived language loss or involuntary CS. The Chi Square Test result is not statistically significant. Means reveal similar distributions among subjects who complain of involuntary CS and/or loss of English and those who do not. In both groups, there is greater tendency to focus on local rather than global context, and minimal personal schema interference.

These results do not necessarily contradict the initial assumption that CS is the end product of cognitive processing involving word retrievals. The point is that the experiment involves literacy skills, e.g. searching for context clues, whereas the self-report data includes evidence of CS in conversation but not in the language of thought on the written tasks. Perhaps an experiment involving text-free word retrievals would reveal interactions between cognitive processing and CM or CS.

Speech is apparently more prone to CS than other channels of language production. The more flexible nature of context in speech lends itself to greater variance in cognitive processing. For some individuals, mental routes may be restricted to the language in use. For others, boundaries between other languages may be less rigid, so that a multilingual may have compound resources of "FL vocabulary" to be activated when the speaker is in "foreign language mode" (Cohen, 1995; Selinker & Baumgartner-Cohen, 1995).

It should be noted that advanced high school level of English proficiency was a prerequisite to acceptance to the retraining course. Thus, similarities in the subjects' interlanguage structure may also account for non-significant differences in their cognitive styles on the word retrieval tasks.

Language of thought

A multilingual's choice of language of thought is relevant to the issue of involuntary CS. The speaker may decide to use the target language to warm up or rehearse in preparation for a subsequent effort, for functional language use, or to draw on multilingual resources, e.g. mnemonic devices (Cohen, 1995).

In the cloze and recall task experiment, English seemed not to have emerged while writing Hebrew recalls, neither did Hebrew emerge while writing either the cloze or the English recalls. This suggests that the target language served as the language of thought in performing these tasks. On the other hand, the native speaker's comment that a word she had struggled in translating into Hebrew later came up in her English recall shows that concentrated cognitive effort may result in an umbrella effect overriding conscious choice of language.

Implications

Several implications may be drawn from this investigation.

Variation in non-native speakers' level of proficiency in an interlanguage does not necessarily correlate with variation in their feeling that they are losing control of this language. On the other hand, use is of major importance in maintaining an interlanguage. Where a new second interlanguage is in comeptition for dominance, basic interpersonal communication skills in a prior FL are potentially at risk.

In the case under study, both English and Hebrew are interlanguages in flux. At a personal level, the subjects attach personal importance to both languages. On the one hand, they consider good English to be a prerequisite to their profession as EFL teachers. On the other hand, good Hebrew is a prerequisite to becoming absorbed in Israeli society. Still the evidence reveals variation in the force and operational outcomes of these emotions, as well as differences between objective and subjective assessment of English attrition. It is of particular interest that those individuals who exert vigorous effort in acquiring Hebrew and express pride in their achievements are those who express great distress at their diminishing control of English.

It is also interesting that Hebrew (or in several cases German) emerges involuntarily in English rather than the L1. This finding supports the view that multilinguals might tend to separate between L1 and FL resources and "switch to FL mode" when expressing themselves in an interlanguage (Selinker & Baumgartner-Cohen, 1995;

Cohen, 1995).

Do these findings imply that Hebrew might cease to emerge once proficiency and dominance reach near-native levels? Or that merging would never have occured in the first place had there been a balance in the minds of the speakers between the two languages in terms of use and personal importance?

Further investigation is also needed to determine to what extent motivation and frustration concerning two languages of personal importance are interdependent. Longitudinal studies could shed light on additional questions as well. How do some multilinguals strike a balance between non-native languages? Among new immigrants, does control of English recur once Hebrew becomes more stable? Do vigorous efforts to regain English proficiency put Hebrew dominance at risk?

Notes

1. In the current study the term code-switching (CS) and code-mixing (CM) are used interchangeably unless stated otherwise, e.g. in quotations from the research literature.
2. All quotes from subjects' papers have been copied with all original language errors and spelling mistakes
3. Terms used throughout this paper to label quotes from multilinguals' self-rport data are adapted from Cohen (1995). The purpose is to clarify speakers' level of multilingualism.
4. Underlining and line breaks appear as in the original.

References

Berman, R. & Olshtain. E. (1983). Features of first language transfer in second language attrition, **Applied Linguistics, 4,** 222-34.

Cohen, Andrew, (1995). In which language do/should multilinguals think? **Language, Culture and Curriculum, Vol. 8,** No.2, pp. 99-113. Multilingual Matters Ltd.

Cohen, Andrew, (1986). Forgetting Foreign-Language Vocabulary, **Language Attrition in Progress,** Weltens, de Bot & van Els (eds.) Foris Publications.

Cohen, A. & Aphek, E. (1981). Easifying second language learning. **Second Language Acquisition,** 3:221:236.

Dubin, Fraida and Olshtain, Elite, (1993). Predicting Word Meanings from Contextual Clues: Evidence from L1 Readers, **Second Language Reading,** Hucking, Coady and Haynes (eds.).

Goldsmith-Phillips, Josephine, (1989). Word and Context in Reading Development: A Test of the Interactive-Compensatory Hypothesis, **Journal of Educational Psychology, Vol. 81,** No. 3, pp. 299-303.

Lin, Angel, (1996). Bilingualism or Linguistic Segregation? Symbolic Domination, Resistance and Code Switching in Hong Kong Schools. **Linguistics and Education, Vol. 8** No. 1, pp. 49-84.

McClure, Erica, (1992). The Pragmatics of Code Switching in Mexican Political, Leterary, and News Magazines, **Pragmatics and Language Learning, Vol. 3**, pp. 182-196.

Olshtain, Elite, (1986). The Attrition of English as a Second Language with Speakers of Hebrew, **Language Attrition in Progress,** Weltens, de Bot & van Els (eds.) Foris Publications.

Olshtain, Elite, (1989). Is Second Language Attrition the Reversal of *Second Language Acquisition? SLA,* **11**, pp. 151-165, Cambridge University Press.

Olshtain, E. & Barzilay, M. (in press). Lexical Retrieval difficulties in adult attriters. In H. Seliger & R. Vago (Eds.) **First language attrition: Structural and theoretical perspectives**. *Cambridge,* Cambridge *University Press.*

Olshtain, E. & Berman, R. (1981). The nature of LI patterns affecting L2 attrition: Data from Hebrew-English bilingual children. Paper presented at the 6th International Congress of Applied Linguistics, Lund, Sweden, August 1981.

Olshtain, Elite & Blum-Kulka, Shoshana, (1989). *Happy Hebrish: Mixing and Switching in American-Israeli Family Interactions,* **Variation in SLA: I Discourse and Pragmatics, II Psycholinguistics,** Gass, Madden, Preston, Selinker (eds.), Vol. 8, pp. 54-83, Multilingual Matters Ltd.

Seliger, H. (in press). Reduced redundancy and creativity. In H. Seliger & R. Vago (Eds.) **First language attrition: Structural and theoretical perspectives.** *Cambridge,* Cambridge *University Press.*

Seliger, H. (1985). **Primary language attrition the context of other language loss and mixing.** New York: Department of Linguistics, Queens College.

Selinker, Larry & Baumgartner-Cohen, (1995). Multiple Language Acquisition: 'Damn it, why can't I keep these two languages apart?', **Language, Culture and Curriculum, Vol. 8**, No. 2, pp. 115-121, Multilingual Matters Ltd.

Shoshani, Gaby, (1996). Interaction Between Cloze Tasks And Foreign Language Reading Processes. **M.A. Thesis,** Tel Aviv University.

van Els, Theo, (1986). An Overview of European Research on Language Attrition, **Language Attrition in Progress,** Weltens, de Bot & van Els (eds.) pp. 3-18, Foris Publications.

Weinreich, U. (1953). **Languages in Contact.** Linguistic Circle of NY, No. 1.

Acknowledgement:

Appendix 1: The Questionnaire

The following questionnaire was used to collect data on subjects' linguistic background and self-perceptions concerning their levels of proficiency and use of various languages. *This instrument reflects opinions expressed* in the subjects' essays and in the research literature (Selinker, 1995; Cohen, 1986; Cohen, 1995).

A Questionnaire

This questionnaire addresses the issue of multiple language acquisition. Your responses will provide data for our investigation of the link between language acquisition and language attrition. Thank you for your cooperation.

Please fill in the tables below as follows:

1. List the languages you know (or knew in the past) in the order of acquisition.
2. Indicate your perception of the <u>current</u> level of your skills in each language (high/low).

	LANGUAGES	SPEAKING	READING	WRITING
L1				
L2				
L3				
L4				
L5				
L6				
L7				
L8				

3. Indicate how you learned/acquired each language.

	FORMAL INSTRUCTION (Number of years, dates)	INFORMAL INTERPERSONAL VERBAL COMMUNICATION (Frequent or minimal?)	FORMAL ACADEMIC PURPOSES (Spoken and/or written?)
L1			
L2			
L3			
L4			
L5			
L6			
L7			
L8			

4.   How often do you use your L1 in the following situations?

	NEVER	SELDOM	FREQUENTLY	USUALLY
At home with your...				
husband/wife				
children				
parents				
friends				
In the community...				
shopping				
on personal affairs				
with government officials and the like				

5.   How often do you use English in the following situations?

	NEVER	SELDOM	FREQUENTLY	USUALLY
At home with your...				
husband/wife				
children				
parents				
friends				
In the community...				
shopping				
on personal affairs				
with government officials and the like				

6.   How often do you use Hebrew in the following situations:

	NEVER	SELDOM	FREQUENTLY	USUALLY
At home with your...				
husband/wife				
children				
parents				
friends				
In the community...				
shopping				
on personal affairs				
with government officials and the like				

7. Circle the best answers (in reference to the present):

Which language do you normally use more?	ENGLISH or HEBREW
Which language do you like more?	ENGLISH or HEBREW
Which language do you spend more time studying?	ENGLISH or HEBREW

Appendix 2: The cloze passage

A Great Twentieth Century Musician

Toscanini was born in Italy in 1867 and died in the United States in 1957. He was one of the greatest musicians of the twentieth century. His achievements were so splendid that to this _____, over thirty-five years after his death, he is considered a model of "what every conductor should be".

Toscanini had musical talent, a charismatic personality and a phenomenal memory. _____ remembered every musical note by heart and considered technical mistakes moral sins; every note had to be perfect. When Toscanini was not _____, he screamed. The musicians accepted his behavior with love. "It is good for his blood pressure," they said. When he was too quiet for several days, they _____, and when he screamed again, they were relieved. His charisma motivated musicians to reach achievements they could never have reached without _____. Under his direction, musicians produced music of the _____ standard, giving them tremendous self-confidence, pride and joy.

Arturo Toscanini's musical career began at the age of 19 and ended at the _____ of 87. Very little is known about his _____ life because he kept his secrets to himself; he did _____ like people to write about him. _____ we know that he was the son of a poor tailor, and that he was sent to music school at the age of nine where he did not have to pay for food, bed _____ schooling. Toscanini's parents never visited him at school. His mother said she didn't have a suitable dress to wear; but her clothes were good enough to wear to church, _____ she used to meet her son from time to time. _____ he grew up, his parents did not come to his wedding, and they never came to any of his concerts.

It is said that conductors love being seen but Toscanini was different. He disliked public light. The _____ halls he liked best were those where the orchestra was under the stage and the conductor _____ in, did his job, and left, without being seen by the audience. Only during the rehearsals, when he was alone with his musicians, was he able to open up and come to life. It is said that _____ his musicians knew how truly great Toscanini was because only they saw him in his best moments–during the rehearsals. They claimed that his concerts were great but his rehearsals were even _____.

Toscanini spent most of his life in the United States. When the Fascists came into

Appendix 3: The miscue analysis instrument

Table 6: Scales of the miscue analysis instrument

A – SEMANTIC NETWORK (meaning relations in the language system)
3   Accepted response (Matching the key)
2   Common semantic field (Associative relationship, e.g. co-hyponymn, subordinate, superordinate of words in key)
1   Different semantic field. No associative relationship to words in key
0   Opted out: BLANK
B – SYNTACTIC ACCEPTABILITY (structure and morphology)
2   Acceptable structure and morphology in local context
1   Unacceptable structure, not cohesive, incorrect morpheme
0   Opted out: BLANK
C – SEMANTIC ACCEPTABILITY
3   Acceptable within global context
2   Acceptable only in immediate context
1   Lacking meaning, or unacceptable collocation
0   Opted out: BLANK
D – RETRIEVAL STRATEGIES
5   Focus on extra-textual information or personal schemata. Context clues cannot be identified by coder. The subject's personal schemata may have supported or interfered with comprehension of the text.
4   Focus on thematic content. Although incorrect, response item seems congruent with general thematic content of the text.
3   Focus on global semantic clues. The response item may be a topic/key word, a lexical repetition, a summary word, or a logical connector. Context clues which could explain the response item are observed by the coder beyond the phrase in which missing item is embedded.
2   Focus on local semantic clues. Semantic clues are observed by the coder in the immediate environment (up to and including phrase in which the missing item is embedded, or printed just above or below the missing item).
1   Focus on syntax. The response item indicates focus on structure rather than meaning; it is usually a function/grammar word.
0   Opted out: BLANK