PHONOLOGICAL INTERFERENCE:
THE BASIS FOR A PHONOLOGY OF A CANADIAN VARIANT
OF THE UKRAINIAN LANGUAGE

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by

Anna Shymkiw

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ABSTRACT

The many different languages in Canada constitute an important part of our sociocultural environment. These languages are continually adjusting to an environment which is officially bilingual and multicultural. Ukrainian, like the other minority languages, shows evidence of its contact with the dominant language, *i.e.*, Canadian English. The speech of four groups of Canadian-born Ukrainians has undergone and is undergoing phonological changes. The consequence of these changes has been the emergence of a Canadian variant of the Ukrainian language.

This study aims to describe the phonology of a Canadian variant of the Ukrainian language. The variant arose as a result of phonological interaction among three sources: Canadian English, standard literary Ukrainian and the Southwestern dialects.

Most contrastive analysis models deal with the contrast of two distinct languages. Because the case of Canadian Ukrainian involves three interacting phonological systems, a contrastive phonological analysis model had to be proposed to deal with this situation.

Elements which are distinctive and differ among the systems are selected. These elements serve as an outline for analyzing the changes in the speech of three generations of Canadian Ukrainians. The changes/innovations which arose as a result of interference characterize the phonology of the Canadian variant of the Ukrainian language.

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LIST OF SYMBOLS

[ ]	phonetic representation
//	phonological representation
#	word boundary
##	syllable boundary
+	suffix boundary
++	prefix boundary
{ }	either/or
'	palatalized consonant
''	excessively palatalized consonant
°	slightly palatalized consonant
~	alternates
:	lengthening
→	becomes (synchronic)
/	in the environment of
α	alpha
CE	Canadian English
SLU	Standard Literary Ukrainian
SWD	Southwestern Ukrainian dialects
D.F.	Distinctive Feature
fem.	feminine
masc.	masculine
neut.	neuter
attr.	attribute
nom.	nominative case

gen.	genitive case
dat.	dative case
instr.	instrumental case
loc.	locative case
voc.	vocative form
sg.	singular
pl.	plural
imper.	imperative mood
ind.	indicative mood
reflex.	reflexive verb

CHAPTER I

INTRODUCTION

1.0 Purpose

The purpose of this thesis is to determine what kinds of phonological interference are to be found in the speech of four groups of Canadian Ukrainians. The innovations play a prominent part in the phonology of the Canadian variant of Ukrainian.

1.1 Earlier Studies

Various studies of English interference in Canadian Ukrainian have been written — Žluktenko, 1960, 1964, 1976; Rudnyckyj, 1961; Korunec', 1968; Burstynsky, 1970; Gerus-Tarnawecka, 1978; et. al. Only those studies are reviewed here which deal with phonological interference or change in Canadian Ukrainian.

According to Rudnyckyj (1961), "Phonological Innovations in Canadian Ukrainian" the Ukrainian language spoken in Canada is a dialect which may be termed "symbiotic", "enclavic" or "mixed" (Rudnyckyj 1961: 753). He discusses one phonological innovation which occurs in Canadian Ukrainian, the developed of /s/, /z/, /c/, /ʒ/ consonantal phonemes in the speech of the older generation of Ukrainian Canadians and its development in the younger generation. The speech under examination is based on the author's materials dating from 1949-1958. His analysis is limited to the older generation of immigrants and one segment of the young generation. Rudnyckyj, however, does not specify exactly to what immigration or generation he is referring.

In his paper "Languages in Contact: Ukrainian and English", Burstynsky (1970) deals, in general, with the linguistic interference from English to Ukrainian. A wide range of topics is discussed: the variables, the relationship of these variables to pre- and post-World War II immigrants, phonology, stress, morphology, lexicon, etc. The section on phonology deals with the innovations found in the speech of first and second generation Canadian Ukrainians. Burstynsky cites several of these and provides a linguistic discussion, but does not state which innovation is particular to each generation. Because many topics are discussed the phonological data given is limited to relatively few examples.

Gerus-Tarnawecka's (1978) "Recent Trends in North America Ukrainian". The important aspect of Gerus-Tarnawecka's "Recent Trends in North American Ukrainian" is the concept of a Canadian variant of the Ukrainian language. She also discusses a wide range of topics: the Ukrainian language in North America as a transplanted dialect which, in form, cannot be a dialect; "the innovations which evolve in Canada either through the influence of Ukrainian literary language or because of interference by the nation's two dominant languages (English and French), or other immigrant and even indigenous languages, which could eventually lead to the formation of a distinctly Canadian variant of the Ukrainian language." (Gerus-Tarnawecka, 1978:91); the literature on the Ukrainian language in Canada; analysis on the phonological, morphological, synthatic and lexical levels; extra-linguistic factors, etc. The section on phonology gives an analysis of the innovations in the speech of Canadian Ukrainians. She highlights the "more interesting and innovative features of Canadian Ukrainian." (Gerus-Tarnawecka, 1978: 94).

Two studies which describe the Ukrainian language within the theoretical framework of generative phonology are Anderson (1962) and Foster (1966). Anderson describes the phonology of contemporary literary Ukrainian along the lines of Halle's (1959) The Sound Pattern of Russian: A Linguistic and Acoustical Investigation. Foster, "Some Phonological Rules of Modern Standard Ukrainian", provides a synchronic analysis of modern standard Ukrainian and a historical account of the processes involved which shaped the Ukrainian language.

All studies of the Ukrainian language in Canada, with the exception of Gerus-Tarnawecka (1978), assert that either the language is assimilating or a new dialect is being formed. A detailed phonological description of Canadian Ukrainian does not exist, as these studies have all dealt with phonological interference in general.

1.2 Contrastive Analysis Method

The contrastive analysis method examines, the "similarities and differences between two or more languages or dialects with the aim of finding principles which can be applied to practical problems in language teaching and translation, with special emphasis on transfer, interference and equivalents." (Hartman and Stork, 1972: 53). This method is synchronic and ignores genetic relationships.

Various contrastive models and methods have been proposed for the study of interference -- Haugen, 1953; Weinreich, 1953; Lado, 1957; Moulton, 1962; Stockwell and Bowen, 1965; Brière, 1968; DiPietro, 1968, Whitman, 1970; et. al.. However, these models and methods cannot be used unchanged because they only deal with the interference between two distinct languages. In the case of Ukrainian as spoken in Canada, on the other hand, finds three interacting phonological systems, two of which

are those of closely related dialects.

It would be useful to review briefly a few of the studies of phonological interference which use the contrastive analysis approach.

One of the classic studies[1] of interference is Uriel Weinrich's Languages in Contact: Findings and Problems, (1953).[2] Working within the theoretical framework of structuralism he contrasts the phonological systems of Romansh and Schwyzertütsch. He cites the features which are distinctive to each system and their allophones and then categorizes the interference factors into four classes: "under-differentiation of phonemes; over-differentiation of phonemes; reinterpretation of distinctions and phone substitutions." (Weinrich, 1974: 18-19). There are, however, as Weinrich observes, instances of 'phonic' interference which do not relate with any of the four classes, *i.e.*, the phenomenon of 'hypercorrection.' (Weinreich, 1974: 19).

William G. Moulton, in The Sounds of English and German (1962), contrasts the phonological systems of English and German. He stresses the importance of phonetics in an analysis of sound interference; many of the pronunciation errors are due to phonetic rather than phonological differences. In the case of the German vowels /i:, u:, e:, o:/, for example, Moulton states that "before a voiceless consonant an American will substitute his monophthongal allophones [i u] and (perhaps) [e]; but these will be too open and probably too short, so that sieht, tut, geht, boot will be ['zit 'tut 'get 'bot] (like English, seat, toot, gate, boat) rather than ['zi:t 'tu:t 'ge:t 'bo:t]." (Moulton, 1962: 92).

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[1] Another classic is: Haugen, 1953.

[2] It should be noted that Weinreich also examines the grammatical and lexical levels and pursues the psycholinguistic and sociolinguistic implications of languages in contact.

Pronunciation problems according to Moulton are classed into four categories: phonemic, phonetic, allophonic and distributional (Moulton, 1962: 26-51, 91-112, passim).

A contrastive study which quite thoroughly explicates the hierarchy of difficulty phenomenon[1] is Robert Stockwell and J. Donald Bowen's, The Sounds of English and Spanish (1965). The phonological systems are first compared and then categorized according to 'optional choice', *i.e.*, the possible choices existing among phonemes, 'obligatory choice,' *i.e.*, primarily referring to allophones with specified environments but also referring to the restriction on certain phonemes. Stockwell and Bowen cite an example from English where in word initial position before /m/, /s/ may occur but never the voiced counter-part. There also remains the 'zero choice,' *i.e.*, the nonexistence of the sound in one of the languages. Thus, eight possible differences according to 'optional' 'obligatory' and 'zero' choices are postulated for English and Spanish. Secondly, after determining the possible differences, the 'hierarchy of difficulty' must be established. The criteria necessary for designating the hierarchy depends on the 'functional load,' *i.e.*, "the extent to which a given sound is used in [one of the languages] to distinguish one word from another, the quantity of distinctive information that it carries." (Stockwell and Bowen, 1965: 16). The following criterion is labelled 'potential mishearing.' For example in Spanish, initial [t=] - the variety of /t/ that appears before vowels." (Stockwell and Bowen, 1965: 16). This example, according to the eight possible differences is zero in English and obligatory in Spanish. An American perceiving the

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[1] In his contrastive analysis section Moulton (1962) deals with a hierarchy of sounds - from those which present the least difficulty to those which present the most difficulty.

sound would usually hear a [d] if it was pronunciated correctly. Therefore, Stockwell and Bowen when ordering the sequence categorize this as having high mishearing potential. 'Pattern congruity' is the last criterion, *i.e.*, the manner in which sounds group together in the respective languages. Accordingly, for Spanish they group /b/, /d/ and /g/ together, stating that "/b/ and /d/ are high in difficulty, in functional load, and in potentiality for mishearing ... /g/ is also difficult, but it is considerably lower in functional load and has less potential for mishearing." (Stockwell and Bowen, 1965: 17). The ordering of the eight possible differences in congruence with the criteria is grouped into three 'magnitudes of difficulty,' ranging from most to least difficult, for a language-learner to pronounce.[1]

These examples illustrate three different methods for determining phonological interference. Two factors are common to these studies: first, the contrast of two languages; second, the fact that their studies aim at learning problems and the elimination of speech errors. The nature of the contrast is different for Canadian Ukrainian where the interaction of three phonological systems must be considered. The aim is not to solve learning problems or to eliminate speech errors but rather to examine the phonology of the Canadian variant of Ukrainian. Thus, these methods cannot be used. The contrastive analysis method provides the background for determining interference. The theoretical framework of generative phonology (Jakobson) is used to sketch the phonology of the Canadian variant of the Ukrainian language.

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[1] The mention of two significant studies dealing with phonological interference would be appropriate. They are: Liêm, 1970, Nemser, 1971.

1.3 Assimilation - Dialect - Variant[1]

The many different languages in Canada constitute an important part of our socio-cultural environment. These languages are continuously adjusting to an environment which is officially bilingual and multicultural. Some of these languages are undergoing changes while others are being assimilated where assimilation, according to the Report of the Royal Commission on Bilingualism and Biculturalism (1969), "implies almost total absorption into another linguistic and cultural group." (Report of the Royal Commission on Bilingualism and Biculturalism 1969: 5). For example, "native-born members of ethnic origin categories with languages related to English (the Dutch and German), show high rates of assimilation, but these groups have also had long histories in Canada." (Report of the Royal Commission on Bilingualism and Biculturalism, 1969: 120). Ukrainian like other minority (non-official) languages, has been influenced by its contact with the dominant languages, especially Canadian English. The Ukrainian language in Canada has undergone and is undergoing phonological changes. It is argued that the consequence of these changes is not a process of assimilation but rather the phonological development of a Canadian variant.

The rationale behind this argument stems from the fact that

> the vitality of non-official languages is determined by a host of influences and modified by factors peculiar to particular ethnic origin categories ... The fate of a language depends on the persistence of its use by the native born. While immigrants provide immediate support to the language, it is the native

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[1] There is no single definition of 'language', 'dialect', 'assimilation' or 'variant'. Haugen (1966) states that "the taxonomy of linguistic description - that is, the identification and enumeration of languages - is greatly hampered by the ambiguities and obscurities attaching to the terms "language" and "dialect"." (Haugen, 1966: 922).

> born who determine its retention in the long run. (Report of the Royal Commission on Bilingualism and Biculturalism, 1969: 117-119).

It has been proven over the years that there is a strong retention, among the native born Canadian Ukrainians, of the Ukrainian language. The instrumental factors for this retention are the cultural and educational institutions, including the Ukrainian churches (Report of the Royal Commission on Bilingualism and Multiculturalism, 1969: 132).

This retention indicates that the Ukrainian language in Canada is not assimilating to the dominant language, Canadian English, but rather that a different process is involved here. In the subsequent chapters we will show, by reviewing the impact of the immigration movements on the Ukrainian language in Canada and analyzing the phonological changes or innovations in the speech of Canadian Ukrainians, that a Canadian variant of the Ukrainian language is being developed.

Since the three generations of Canadian Ukrainians are all exposed to the Southeastern Ukrainian dialects (standard literary Ukrainian), the Southwestern Ukrainian dialects and Canadian English, the situation is one of three interacting phonological systems. When these systems interact synchronically, phonological changes or innovations occur. These innovations can be said to consist of a variety of phonological characteristics from Canadian English, the Southwestern dialects and standard literary Ukrainian, thus resulting in a variant distinct from all three. Fishman (1972) states that "the term variety - unlike the term dialect - indicates no particular linguistic status (other than difference) vis - à - vis other varieties. A dialect must be regional subunit in relation to a language, particularly in its vernacular or spoken realization." (Fishman, 1972: 17). The Canadian variant that is

being developed does not yet have any "particular linguistic status." It can, however, be related to three systems but "all varieties of all languages are equally expandable and changeable; all are equally contractible and interpenetrable under the influence of foreign models." (Fishman, 1972: 18). Only time will show the linguistic status of the Canadian variant of the Ukrainian language. For now "variant" is intended to mean "tending to change or alter; exhibiting variety or diversity; varying." (Random House Dictionary, 1966: 1581).

1.4 Fieldwork and Informants

Fieldwork was carried out in Winnipeg over a period of three years (Fall 1977 to Spring of 1980). Ninety-five percent of the informants were residents of Manitoba (mostly in the Winnipeg area) and five percent were residents of Ontario (Toronto area).

One hundred and fifty informants between the ages of 16 and 30 were tested. These informants fall into four groups:

CU_1: 48 informants who are the descendants of post-World War II immigrants, *i.e.*, Canadian-born children of parents who were both born in the Ukraine.

$CU_{1/2}$: 34 informants whose parents and grandparents immigrated between the two wars mainly 1920-1941, *i.e.*, the Canadian-born children where one parent immigrated to Canada and the other parent was born in Canada but whose parents immigrated.

CU_2: 43 informants whose grandparents immigrated between the two wars mainly 1920-1941, *i.e.*, Canadian-born children of grandparents who were both born in the Ukraine.

CU_3: 25 informants who are the descendants of pre-World War II immigrants, *i.e.*, Canadian-born Ukrainians whose parents and grandparents were born in Canada.

In terms of educational background eighty-five percent of the informants have a university education; fifteen percent are still in high school and attending Ukrainian school at the same time. Thus, all informants were exposed to formal instruction in Ukrainian. CU_1 informants learned Ukrainian as their first language. These informants are bilingual. $CU_{1/2}$ informants for the most part acquired Ukrainian in childhood or began to learn it in high school. Most are bilingual; the others have a fairly good command of the language. CU_2 similarly learned Ukrainian as children and reinforced it in school. But they cannot be termed bilingual at present. They switch back and forth from English to Ukrainian. CU_3 informants who for the most part, learned Ukrainian as children or begin to learn it in school. They are not bilingual. They speak English mostly and some Ukrainian.

The majority of the data was obtained in the language laboratory at the University of Manitoba. Other data are tape-recordings of interviews and informal discussions. The interviews consisted of the informants speaking in Ukrainian on any subject. The topics were usually personal experiences. The recordings of informal discussions were obtained in Ukrainian school settings where the informants discussed historical and literary topics in Ukrainian.

CHAPTER II

THE IMPACT OF THE IMMIGRATION MOVEMENTS ON THE UKRAINIAN LANGUAGE

2.0 Introduction

The rise of the 'languages in contact' situation in Canada can be illustrated diagrammatically by tracing the transmigrational process of the Ukrainian dialects. The transmigrational process plays an indirect, though substantial, role as the linking factor in the Canadian variant of the Ukrainian language. To begin with, a delineation of the dialects of the Ukrainian language will be useful for background purposes. Figure I presents the most recent and widely accepted classification of the dialects by Zylko (1958).[1] The phonetic norms of the Southeastern dialects represent the standard literary language. These dialects are said not to vary; the Southwestern dialects, by contrast, vary considerably from each other.

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[1] Perhaps the first attempts to classify the Ukrainian dialects -- now considered classics -- are the classifications of V. Hancov and I. Zilyns'ky:

Hancov, 1923; Zilyns'kyj, 1913, 1925, 1933.

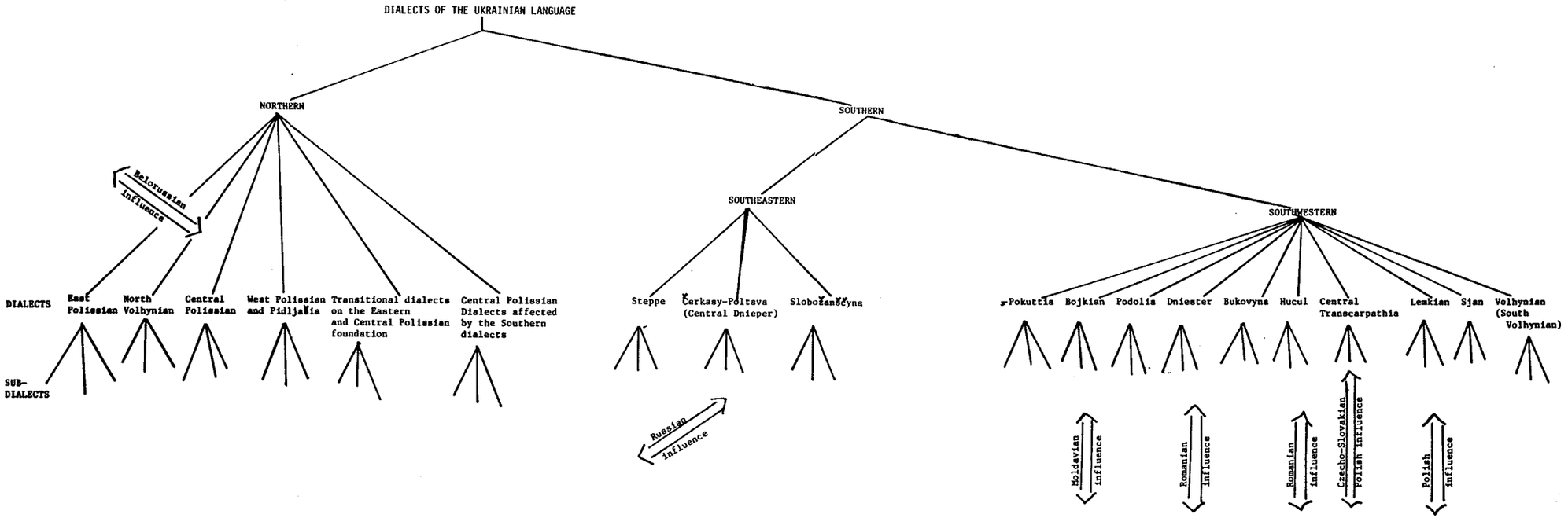

Figure I: The Ukrainian Language: dialects and influence.

2.1 Immigration

The immigration of Ukrainians to Canada is usually divided into three movements.[1] In general, the first immigration to the U.S. and to a lesser extent to Western Europe and Canada involved the peoples from Western Ukraine: the Galicia, Bukovyna and Transcarpathian regions. The speech norms they brought to Canada were those of the Southwestern dialects. The second immigration includes peoples from Galicia and Transcarpathian regions, to a lesser extent peoples from the Bukovyna, Volhynian and Polissian regions. They migrated to such places as Brazil, Paraquay, Uruquay, Argentina and Canada. The speech of these immigrants also reflected the phonetic norms of the Southwestern dialects.

Post-World War II migration presents a slightly different picture. The immigration to Canada was not directly from Ukraine but directly through Germany, France and other countries due to the displacement of Ukrainians during the war. Kaye (1966) states that "the third phase immigrants originated from the whole territory, from Kuban to Carpatho-Ukraine." (Kaye, 1966: 43). The speech norms of the third immigration were those of both standard literary Ukrainian and the Southwestern dialects. The third-phase immigrants who spoke the Southwestern dialects were also conscious of the standard literary language. This was not true of I and II immigrants. (See Figure II: Regions and Dialects).

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[1] First immigration - 1891 until the First World War (1914).
Second immigration - the period between the two wars; minaly 1920-1941.
Third immigration - subsequently after the Second World War.
The movements and dates cited are based on:
Report of the Royal Commission on Bilingualism and Biculturalism. 1969: 23-31.
Kaye, 1966.

UKRAINE	TRANSMIGRATION	DIALECT BROUGHT OVER TO CANADA
Southwestern regions: Galicia, Bukovina, Transcarpathia, Volhynia, Polisia	→ 1st migration	Southwestern group of dialects
	→ 2nd migration	Southwestern group of dialects
from the entire territory of the Ukraine	→ 3rd migration	Southeastern group of dialects (standard literary Ukrainian); Southwestern group of dialects.

Figure II: Regions and Dialects

2.2 Immigrant Ukrainian

If one is investigating immigration from a linguistic point of view[1] the impact that the movements had on the Ukrainian language in Canada patterns somewhat differently. Over the years the immigrant Ukrainian language began to change as it came into contact with Canadian English. The speech of first- and second-phase immigrants exhibit the same linguistic changes; while that of the third immigration exhibits a different set of changes. Gerus-Tarnawecka (1978) suggests that the division coincides with the Second World War. This division between Pre-World War II and Post-World War II is "determined by the category and the character of language changes as well as alternations in its distribution." (Gerus-Tarnawecka, 1978: 92). Thus, this bipartite 'linguistic-type' division can be descriptively labelled as "period I" and "period II", respectively.

"Period I" refers to a period where the language is characterized by absorption and a retention of the Southwestern dialect phonetic norms. The immigrant language of this period has two notable characteristics. First, Canadian English words are adopted to comply with Canadian experiences and society. The corresponding Ukrainian words recede. These Ukrainian loans then take Ukrainian derivational affixes and are used in Ukrainian constructions.

For example, vačuvaty 'to watch' takes the place of the Ukrainian slidkuvaty. The root of the verb stem vaču - is borrowed directly from the English verb; the suffix and ending follow the common Ukrainian pattern in - uvaty. Similarly, the Ukrainian personal endings are used,

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[1] The information cited earlier on immigration presents an historical account of the Ukrainian migration process.

vin vačuje 'he watches' (3rd per. sg. ind.). Compare the noun loans: The noun lajna 'line' is used instead of čerha. The root is derived from English and the gender is marked by adding a feminine ending - a. Čerha is feminine in Ukrainian. Lajna in the locative singular would take an i ending: v lajni 'in line'.[1] Second, the southwestern dialectal phonetic norms are used in the pronunciation of English words. For example, the word 'thank you' would be pronunciated [tɛŋju] c.f. English [θæŋku:].

"Period II", on the other hand, refers to a different set of changes in the language resulting from a liberal attitude and a greater retention of the phonetic norms of both standard literary Ukrainian and the Southwestern dialectal norms. The immigrant language of this period has three notable characteristics.

First, the immigrants retain the norms of the standard literary language based on Holoskeyč's orthography (1928); these were the existing pre-migrational norms. It was noted earlier that the majority of these most recent immigrants came from the Southwestern regions of Ukraine, speaking their own dialect but conscious of the standard literary language. In a manner of speaking they were striving for purity in the language, *i.e.*, not allowing for any calques, loans, etc. This puristic tendency reaches its extreme when new words are coined to replace words that have existed in the language for decades or even centuries. The reason for this puristic tendency is that the words were either borrowings

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[1] Zluktenko (1964) provides an indepth phonetic, morphological, lexical and syntactic analysis of Pre-World War II immigrants' language. It should be noted that his study is, however, somewhat biased by the fact that it is based on printed material. This results in a secondary analysis which provides data formed by analogy. For a Canadian view of the subject matter see Gerus-Tarnawecka (1978).

or they did not adhere to the "spirit" of the Ukrainian language.

A vivid example of this extreme instance is the dictionary compiled by Pavlo Stepa,[1] Slovnyk čužosliv; snadibky (1977). For example, the word banknot 'bank note' becomes paperohriš. The noun is formed similarly to banknote: paper + o + hriš (paper from papir 'paper'; the suffix -o- used for connecting two nouns and hriš from hroši 'money') literally means 'paper money'. Similarly instead of parasolja 'parasole' or 'umbrella' Stepa introduces doščarka 'an apparatus used for rain.' Semantically, this neologism, as it stands, does not mean that it protects one from rain or for that matter sunshine but rather it is merely an "instrument for rain." The noun is derived from the root došč 'rain' and the suffixes: -ar- k- (ending -a) used with nouns denoting working instruments. cf. kosarka 'mowing machine' or molotarka 'threshing machine.' Unfortunately, the neologisms which Pavlo Stepa coins are highly idiosyncratic.

In 1968 S. Domazar[2] attempted the task of perfecting the Ukrainian spelling system. In accordance with the fact that Ukrainian orthography closely matches the phonetic system, he introduced three new letters in order that one sound be represented by one letter. The letters are Ǯǯ, Zz, Öö. They represent the diagraphs дж (dž); дз (dz) and йо (jo) or ('o), respectively. The rationale behind this concept, is in itself logical: one sound - one symbol. However, the acceptance of this orthographic reform is not for one person to decide but rather depends on a

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[1] Pavlo Stepa is a retired engineer who has produced several books (Ukrajinec a Moskvyn (1959); Moskovstvo (1968); Mafija (1971) and over 200 articles and essays.

[2] His articles "Doveršimo abetkovyj tvir bat'kiv našyx." in Vil'na Dumka, 1976.

national body such as an Academy of Sciences.

Second, and in contrast with these extremes and puristic tendencies, a liberal-minded attitude toward the immigrant Ukrainian language is quite evident. A good example is J.B. Rudnyc'kyj's, An Etymological Dictionary of the Ukrainian Language which is liberal in the sense that he includes many American Ukrainian, jargon and dialect entries. For example:

American Ukrainian:

dryl'men - "drillmen" (Vol. II, Part 3 (14) p. 201);

gud - "good" (Part 10, p. 884);

gudcens - "good chance" (Part 10, p. 887);

drésink - "dressing" (Vol. 11, Part 3 (14), p. 198);

gud-mórning - "good-morning" (Part 10, p. 886);

éfort - "effort" (Vol. 11, Part 4 (15) p. 304);

jénki - "yankee, citizen of the U.S." (Vol. 11, Part II, Part 4 (15), p. 328).

Jargon:

dyl'má - "river" (Vol. II, Part 2 (13) p. 116);

gudláj ~ kudláj - "Jew" (Part 10, p. 875);

hlaz - "eye" (Part 7, p. 640);

gryps - "letter" (Part 10, p. 875);

dzet - "watch" (Vol. 11, Part 2 (13), p. 97).

Southwestern Dialect

gut - "good" (Part 10, p. 891);

dzéci - "children" (Lemkian) (Vol. 11, Part 2 (13), p. 97).

zbyr - "hill, high bank" (Vol. 11, Part 5 (16) p. 358).

Unfortunately Rudnyckyj does not make explicit his criteria for selecting these entries and omitting others, *i.e.*, gudzyk 'button', gumka 'eraser', graty 'grating', etc.

The last characteristic which is representative of Period II is the strict adherence to the established norms. For example, Jar. Slavutyč in his article "Ukrajins'ka poezija v Kanadi"[1] presents a survey of Ukrainian peotry in Canada and its language. The poets are frequently criticized for the following:

"Dialectal lexicon"

"tjažyt' važkym prokljattjam halyc'ka dijalektna leksyka, ščo duže vražaje," (Slavutyč, 1975: 73);

Accent

"Z naholosamy v Oleksandrova duže neharazd. Šče pivbidy, koly ci nepravyl'ni naholosy bodaj dijalektno-ukrajins'ki (pislja zaznačennja storinky podajemo slova z virnymy naholosamy): požar U (T 11) [reference to the poets work] - požAru; vikOn (T 16) - vIkon; hUčnyj (T 15) - hyčnYj ..... Na žal', ukrajins'kyj poet, načytavšys' rosijs'koji literatury, jaku vin perekladaje, uže vyrobyv sobi vyrazno zrusyfikovanu systemu nahološuvannja dejakyx sliv, zokrema dijesliv." (Slavutyč, 1975: 109);

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[1] Slavutyč, Jar. (comp.) 1975. "Ukrajins'ka poezija v Kanadi," Zaxidn'o-kanads'kyj zbirnyk. Part 2 Edmonton: Kanads'ke Naukove Tovarystvo im. Sevcenka. Vol. XVII, pp. 37-122.

> "... zalyšajemo nepravyl'nyj naholos u slovi" zdìjmEm, "xoč maje buty zdIjmem": nexaj avtor [in reference to Volodymyr Skorups'kyj] sam po‿pravljaje - u zhodi z ukrajins'kym normatyvnym nahološuvannjam!" (Slavutyč, 1975: 84-85).

These quotes demonstrate that Slavutyč tries to enforce quite rigorously the use of only standard literary Ukrainian. It is also typical of Period II that the immigrants in fact continue to use their Southwestern dialectal phonetic norms.

The common denominator for "period I" and "period II" is the systematic interference of Canadian English. (See Figure III: The Language of the Immigrants). The cumulative result of these factors is reflected in the speech of the four groups of Canadian-born speakers of Ukrainian. (See Figure IV: The Language Exposure of Canadian-born Speakers of Ukrainian).

Language Period	Dialects brought over to Canada	Characteristics of the Immigrant Ukrainian Language in Contact	Results	Degree of Canadian English Interference on the Immigrant Language
"PERIOD I"	Southwestern Ukrainian dialects	1. absorption 2. retention	1. words coined by analogy	
			2. retention of the phonetic norms of the Southwestern dialects	substantial amount
"PERIOD II"	Southeastern (SLU) and the South-western Ukrainian dialects	1. greater degree of retention 2. liberal	1. puristic attitudes	
			2. liberal attitude towards the language	relatively insubstantial
			3. adherence to the phonetic norms of standard literary Ukrainian but not to the inclusion of the South-western dialects.	

Figure III: The Language of the Immigrants

Contemporary Groups	Language Exposure (in order of importance)	Factors contributing to the Canadian Variant of the Ukrainian Language
Canadian Ukrainians of the third generation (CU_3)	mainly CE; some SWD,SLU	
		1. phonetic and phonological features of CE.
Canadian Ukrainians of the second generation (CU_2)	mainly CE; some SWD,SLU	
		2. interference from the SWD
Canadian Ukrainians of the first generation (CU_1)	SLU; SWD; CE	
		3. phonetic and phonological features of SLU.

Figure IV: The Language Exposure of Canadian-born Speakers of Ukrainian[1]

[1] An abbreviated definition is found on page .

CHAPTER III

CONTRASTIVE PHONOLOGICAL ANALYSIS MODEL

3.0 Introduction

Phonological interference occurs when languages are in contact. It is usually the case that the learner's native language or source language is in contact with the language being learned, the target language. (Brière, 1968: 11). Two distinct language systems are usually in contact. Brière (1968) argues that "it has been assumed by linguists that it is [the] very existence of a [phonological] system of distinctive and non-distinctive features which causes interference when the speaker of one language attempts to learn another language in which the phonological system is composed of partially similar and completely different distinctive and non-distinctive features." (Brière, 1968: 15). This same assumption underlies the choice of the contrastive analysis method (CA) for identifying phonological interference in the speech of three generations of Canadian Ukrainians. The CA method was chosen not only for determining phonological interference but also to illustrate, in the context of interference, the Canadian variant of the Ukrainian language. This is shown in Chapter IV.

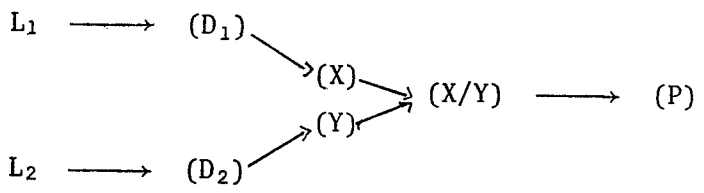
Thus, interference is determined by contrasting and analyzing two different phonological systems. In the case of Canadian Ukrainians, by contrast, it is not a matter of contrasting and analyzing two distinct languages, *i.e.*, a target language with a source language, but rather of contrasting and analyzing three interacting phonological systems which contribute to the formation of the variant. The four groups of Canadian Ukrainians were all exposed to SLU, the SWD and CE.

The degree of exposure to these languages varies in the four groups. (Recall Figure IV: The Language Exposure of Canadian-born speakers of Ukrainian.) The degree of exposure will in turn cause different interference patterns in the four groups.

3.1 Proposed Contrastive Phonological Analysis Model

The proposed contrastive phonological model aims merely to provide phonological despcriptions of Canadian English, the Southwestern dialects and standard literary Ukrainian. The Southwestern dialects are contrasted with standard literary Ukrainian to determine the similarities and differences in the systems. The results of this contrast is further used to determine the similarities and differences between two unrelated different phonological systems: CE on the one hand and, SLU and SWD on the other hand. Once the similarities and differences have been contrasted, those elements which cause interference can be identified. These elements are then traced in the speech of four groups of contemporary Canadian speakers of Ukrainian. This provides the basis for a description of the Canadian variant of the Ukrainian language.

The proposed model is based on Whitman's (1970) CA language model, summarized in Figure V. The four basic components which are necessary for CA are: description, selection of elements, contrast and prediction.



Description Selection Contrast Prediction

Figure V: Whitman's (1970) Contrastive Analysis Model

Whitman's model was expanded to accommodate the more complex situation under examination here. The proposed model is shown diagrammatically in Figure VI.

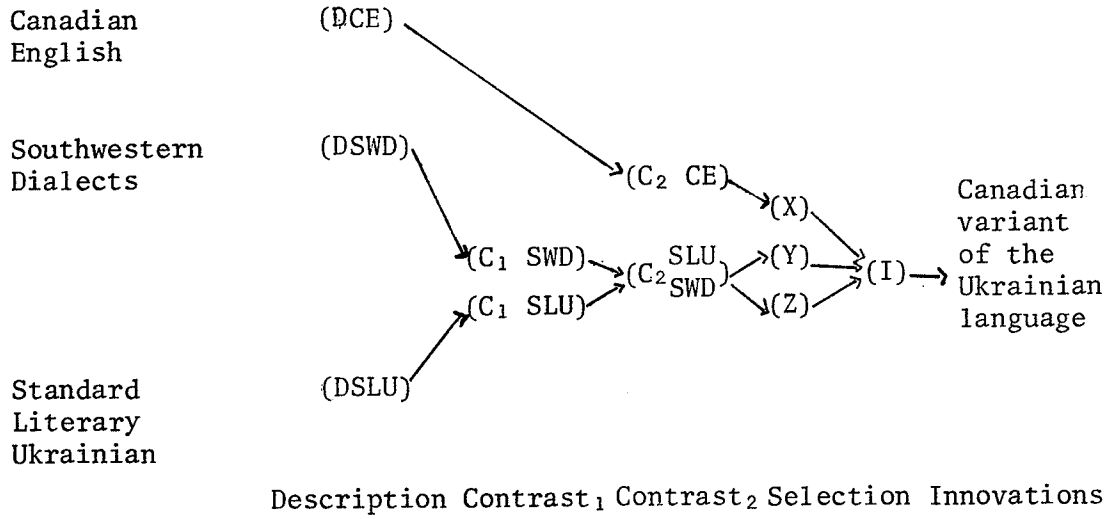


Figure VI: Proposed Contrastive Phonological Analysis Model[1]

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[1] (DCE) - phonological description of Canadian English.
(DSWD) - phonological description of the Southwestern dialects.
(DSLU) - phonological description of standard literary Ukrainian
(C_1SWD) - first contrast of the Southwestern dialects.
(C_1SLU) - first contrast of standard literary Ukrainian
(C_2CE) - second contrast in reference to Canadian English.
($C_2^{SLU}_{SWD}$) - second contrast in reference to the results of the first contrast between SLU and SWD.
x - selection of elements from Canadian English.
y - selection of elements from the Southwestern dialects.
z - selection of elements from standard literary Ukrainian
I - analyses of the innovations found.

3.2 The Procedure

The point of departure for identifying interference is to provide comparable phonological descriptions of the languages in contact. The phonological descriptions include:

1. Distinctive Feature Matrix
2. Hierarchy of Distinctive Features
3. Phonological Rules
4. Allophonic Membership.

The phonological descriptions are not exhaustive. Our purpose is not to compile a phonological inventory but rather to illustrate distinctive features and rules which are central and most representative of each system. Therefore, only those portions of the phonologies are given which are necessary for the contrast.

An adequate phonological description of Canadian English does not exist nor has a Canadian English orthoepic norm been established. The phonological description of Canadian English which is used here is based on the work of Avis (1975). He refers to Canadian English as General Canadian, stating that

> the term General Canadian, which as been in use for over 30 years, refers to the variety of English heard generally from Ontario westward, especially among the urban educated class. Closely related to the "Northern American" speech of adjacent regions of the United States, General Canadian has its roots in old Upper Canada, doubtless in the Toronto area of influence. It is the prestige dialect throughout most of Canada and is the variety of speech most commonly heard on the national network of Canadian Broadcasting Corporation as well as on the commercial C.T.V. network and, with some regional variations, on most local station. (Avis, 1975: 118).[1]

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[1] For a historical background of Canadian English see Avis' article in Current Trends in Linguistics 1973, (10): 43-51.

Avis' description of Canadian English thus illustrates only one pronunciation of Canadian speech. The distinctive feature matrix and hierarchy are sketched on the basis of Jakobson, Fant and Halle (1951) Preliminaries to Speech Analysis and Hyman (1975) Phonology: Theory and Analysis.[1]

There is an orthoepic norm for standard literary Ukrainian which was formulated by the Instytut Movoznavsta im. O.O. Potebni (Academy of Sciences U.S.S.R.) in Kiev. This serves as the basis for the phonological description. The distinctive feature matrix, distinctive feature hierarchy and the redundancy rules are based on Anderson (1962).[2]

The phonological description of the Southwestern dialects is based on Žylko (1966). Because the SWD vary considerably from each other, only those phonological and allophonic rules are given which occur in most of the dialects, *i.e.*, those rules which are shared by most of the dialects. The examples used in the phonological and allophonic rules were chosen from phonetically transcribed texts contained in Hovory ukrajins'koji movy (zbirnyk tekstiv) 1977, which was prepared by the Academy of Sciences U.S.S.R. in Kiev.[3]

It is necessary to first contrast the dialectal source with the target language ($Contrast_1$) in order to make clear the phonological and allophonic similarities and differences between the two Ukrainian

---

[1] Other sources which are used for the description are: Wijk (1966) and Trnka (1935).

[2] Other sources used for the description include: Holoskevyč, 1928; Žovtobrjux, 1961, 1969; Anderson, 1962; Holovaščuk, 1975.

[3] The classic study on Ukrainian dialects is still I. Zilyns'kyj's (1925) "Proba uporjadkovanja ukrajins'kyx hovoriv," although it is somewhat outdated.

systems. A separate distinctive feature matrix and hierarchy is not given for the SWD because it would be superfluous in this study. The distinctive features which are used for SLU are adequate for the SWD. Contrast$_1$ mainly compares the phonemes and the allophones which are either similar or different.

Canadian English is contrasted with the results of the summary of similarities and differences between SLU and the SWD. The contrast is described in terms of the phonemes, their allophones and rules.

'Selection' involves listing the differences in the distinctive features of the systems from the two contrasts, particularly the differing allophonic variations of the phonemes.

The speech of the three generations of Canadian Ukrainian is analyzed in the section labelled Innovations. The innovations are categorized and analyzed in accordance with the list from 'Selection.'

3.3 The Material of Each Component

I. The first component is Description.

The following phonological description (D SLU) characterizes some of the more important features and rules of SLU. The description is divided into the following categories:

A. Distinctive Feature Matrix[1]

B. Distinctive Feature Hierarchy

C. Redundancy Rules

D. Phonological Rules
   a) Palatalization
   b) Assimilation
      i. in palatalization
      ii. voice

[1] Anderson's D.F. matrix includes the feature [± tense]. This feature is replaced with the feature [± voice].

c) Geminates

E. Allophonic Membership.

A. Distinctive Feature Matrix (based on Anderson, 1962)

	d	d'	t	t'	n	n'	ʒ	ʒ'	c	c'	z	z'	s	s'	b	p	v	f	m	ǯ	č	ž	š	g	k	h	x	i	í	y	ý	u	ú	e	é	a	á	o	ó	j	r	r'	l	l'
CONSONANTAL	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	+	+
VOCALIC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+
COMPACT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	+	+	+	+	+	+	-	-	-	-	-	-	+	+	+	+	+	+	0	0	0	0	0
FLAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	+	+	-	-	-	-	+	+	0	0	0	0	0
GRAVE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	+	+	-	-	-	-	-	+	+	+	+	-	-	+	+	0	0	-	-	+	+	0	0	0	0	0	0	0
STRIDENT	-	-	-	-	-	-	+	+	+	+	+	+	+	+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NASAL	-	-	-	-	+	+	0	0	0	0	0	0	0	0	-	-	-	-	+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CONTINUANT	0	0	0	0	0	0	-	-	-	-	+	+	+	+	-	-	+	+	0	-	-	+	+	-	-	+	+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	+	+
VOICE	+	+	-	-	0	0	+	+	-	-	+	+	-	-	+	-	+	-	0	+	-	+	-	+	-	+	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHARP	-	+	-	+	-	+	-	+	-	+	-	+	-	+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	+	-	+
ACCENT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	+	-	+	-	+	-	+	-	+	-	+	0	0	0	0	0

Figure VII: Distinctive Feature Matrix of Standard Literary Ukrainian

B. Distinctive Feature Hierarchy (after Anderson, 1962)

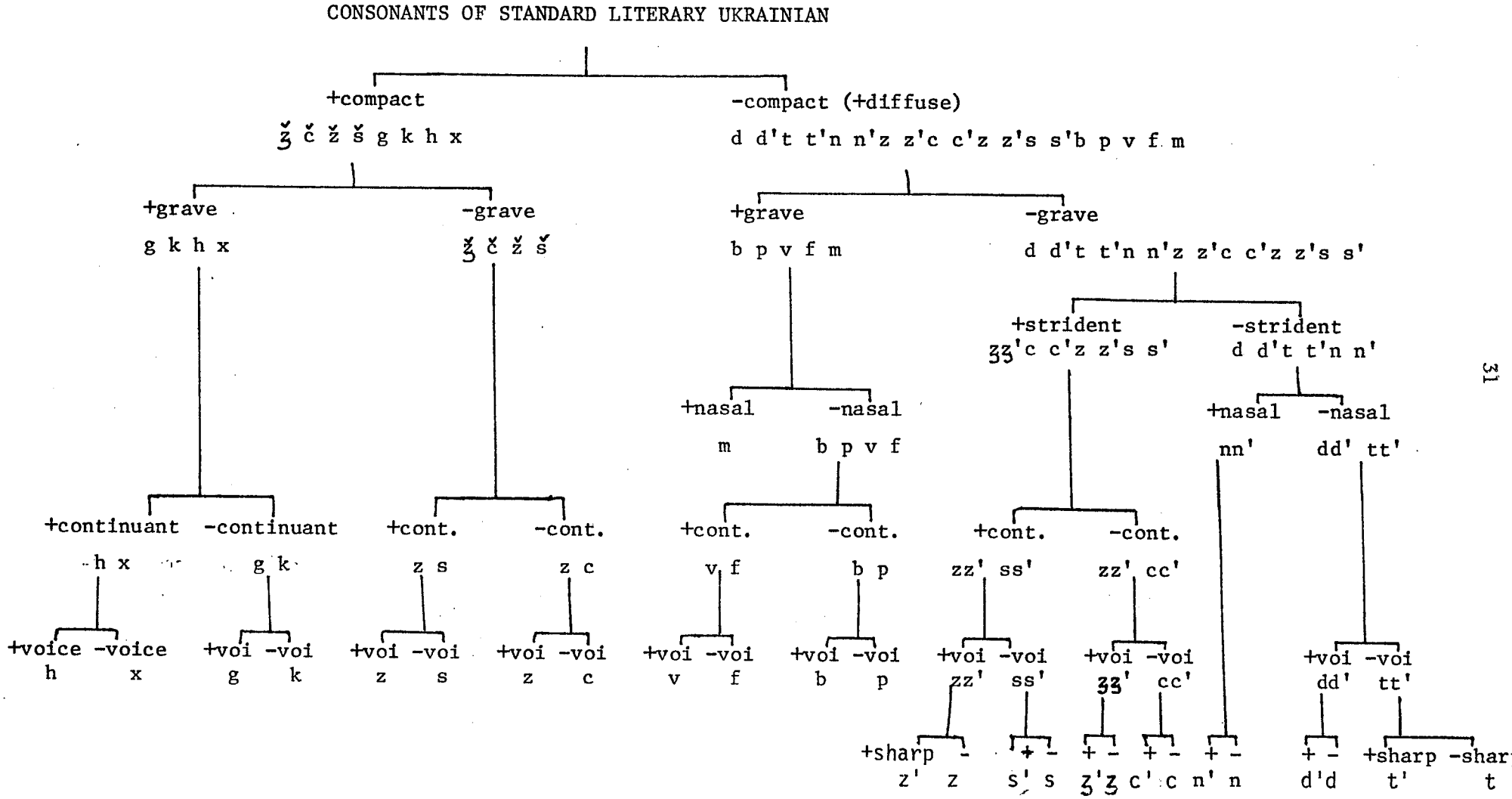

Figure VIII: Distinctive Feature Hierarchy of SLU consonants

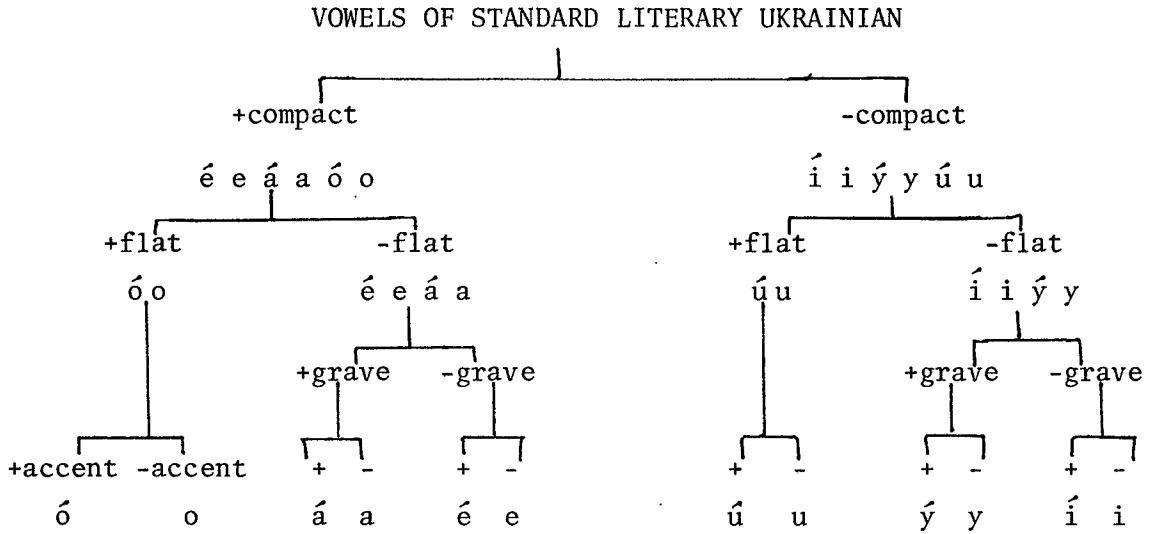

Figure XI: Distinctive Feature Hierarchy of SLU Vowels.

C. REDUNDANCY RULES

(after Anderson, 1962)

except 5

1. $\begin{bmatrix} +\text{cons.} \\ -\text{voc.} \\ +\text{diffuse} \\ -\text{grave} \\ -\text{strident} \\ -\text{nasal} \end{bmatrix} \longrightarrow [-\text{continuant}]$

2. $\begin{bmatrix} +\text{cons.} \\ -\text{voc.} \\ +\text{compact} \\ -\text{grave} \end{bmatrix} \longrightarrow [+\text{strident}]$

3. $\begin{bmatrix} -\text{cons.} \\ +\text{voc.} \\ +\text{flat} \end{bmatrix} \longrightarrow [+\text{grave}]$

4. $\begin{bmatrix} -\text{cons.} \\ -\text{voc.} \end{bmatrix} \longrightarrow \begin{bmatrix} -\text{grave} \\ +\text{sharp} \end{bmatrix}$

5. $\begin{bmatrix} +\text{cons.} \\ +\text{voc.} \end{bmatrix} \longrightarrow [+\text{voice}]$

D. PHONOLOGICAL RULES[1]

a) PALATALIZATION

1. $\begin{bmatrix} +\text{cons.} \\ -\text{voc.} \\ +\text{diffuse} \\ -\text{grave} \end{bmatrix} \longrightarrow [+\text{sharp}] \; / \; - \begin{Bmatrix} i \\ j \end{Bmatrix}$

Ex./rivnja/ → [r'iun'a] 'an equal'

/lito/ → [l'ito] 'summer'

/zatinok/ → [zat'inok] 'shade'

---

[1] Boundary markers are not given unless specified.

2. $\begin{bmatrix}\text{-cons.}\\ \text{-voc.}\end{bmatrix} \longrightarrow \emptyset \,/\, \begin{bmatrix}\text{+cons.}\\ \text{+sharp}\end{bmatrix} \text{ ——— } [1]$

Ex. /dolja/ → [dol'a] 'fate'

b) ASSIMILATION

i. IN PALATALIZATION

1. $\begin{bmatrix}\text{+cons.}\\ \text{-voc.}\\ \text{+diffuse}\\ \text{-grave}\end{bmatrix} \longrightarrow [\text{+sharp}] \,/\, \text{—} \begin{bmatrix}\text{+cons.}\\ \text{+sharp}\end{bmatrix}$

Ex. /p°isn'a/ → [p°is'n'a] 'song'

/dl'a/ → [d'l'a] 'for'

2. $\begin{bmatrix}\text{+cons.}\\ \text{+voc.}\\ \text{+continuant}\end{bmatrix} \longrightarrow [\text{+sharp}] \,/\, \text{—} \begin{bmatrix}\text{+cons.}\\ \text{-voc.}\\ \text{+sharp}\end{bmatrix}$

Ex. /na||h°ilc'i/ → [nah°il'c'i] 'branch' (loc. sg.)

ii. VOICE

1. $\begin{bmatrix}\text{+cons.}\\ \text{-voc.}\\ \text{-nasal}\\ \text{+voice}\end{bmatrix} \longrightarrow [\text{-voice}] \,/\, \text{—} \begin{bmatrix}\text{+cons.}\\ \text{-voc.}\\ \text{-voice}\end{bmatrix}$

Ex. /n'iht'i/ → [n'ixt'i] 'nails'

2. $\begin{bmatrix}\text{+cons.}\\ \text{-voc.}\\ \text{-voice}\end{bmatrix} \longrightarrow [\text{+voice}] \,/\, \text{—} \begin{bmatrix}\text{+cons.}\\ \text{-voc.}\\ \text{+voice}\end{bmatrix}$

Ex. /borot'ba/ → [borod'ba] 'struggle'

Exception: not before /m/, /n/, /v/, sonorants, and the glide.

---

[1] Rule ordering is involved here. After palatalization has taken place, the glide is deleted.

c. GEMINATES

1. $$\left\{ \begin{bmatrix} +\text{cons.} \\ -\text{voc.} \\ -\text{grave} \end{bmatrix} \text{ Except: } \check{z} \text{ and } \check{\check{z}} \right\} \rightarrow [+\text{tense}] \; / \; — \begin{bmatrix} -\text{cons.} \\ -\text{voc.} \end{bmatrix} \begin{bmatrix} -\text{cons.} \\ +\text{voc.} \end{bmatrix}$$

$$\left\{ \begin{bmatrix} +\text{cons.} \\ +\text{voc.} \\ +\text{continuant} \end{bmatrix} \right\}$$

Ex. /žyttja/ → [žy^{e}t':a] 'life'

/kolossja/ → [kolos':a] 'wheat-ears'

E. ALLOPHONIC MEMBERSHIP

1. $$\begin{bmatrix} +\text{con.} \\ -\text{voc.} \\ +\text{diffuse} \\ +\text{grave} \end{bmatrix} \longrightarrow [+\text{sharp}] \; / \; — \left\{ \begin{matrix} i \\ j \end{matrix} \right\}$$

Ex. /mizynec'/ → [m°izynec'] "little finger'

2. $$\begin{bmatrix} +\text{cons.} \\ -\text{voc.} \\ +\text{compact} \end{bmatrix} \longrightarrow [+\text{sharp}] \; / \; — \left\{ \begin{matrix} i \\ j \end{matrix} \right\}^{1}$$

Ex. /žinka/ → [ž°inka] 'woman'

3. /l/ → [l̇] / — $\left\{ \begin{matrix} e \\ y \end{matrix} \right\}^{2}$

Ex. /le^{y}leka/ → [l̇e^{y}l̇eka] 'stork'

---

[1] The allophones of rules E_1 and E_2 are in complementary distribution. They are slightly palatalized allophones.

[2] This is the 'middle l', *i.e.*, an apicoalveolar variant of the phoneme /l/ which is slightly palatalized. (Žovtobrjux, 1969: 250).

4. /t'/ → [c'] / [s'] —— #[1]

Ex. /s°is't'/ → [s°is'c'] 'six'

5. $\begin{bmatrix} -\text{cons.} \\ +\text{voc.} \\ +\text{compact} \\ -\text{flat} \\ -\text{grave} \\ -\text{accent} \end{bmatrix} \longrightarrow [+\text{diffuse}] \; / \left\{ \begin{matrix} \begin{bmatrix} +\text{accented} \\ \text{syllable} \end{bmatrix} \; \underline{\quad\quad} \\ \underline{\quad\quad} \; \begin{bmatrix} +\text{accented} \\ \text{syllable} \end{bmatrix} \end{matrix} \right\}$

Ex. /selǒ/ → [se^{y}lǒ] 'village'

6. $\begin{bmatrix} -\text{cons.} \\ +\text{voc.} \\ +\text{diffuse} \\ -\text{flat} \\ +\text{grave} \\ -\text{accent} \end{bmatrix} \longrightarrow [+\text{compact}] \; / \left\{ \begin{matrix} \begin{bmatrix} +\text{accented} \\ \text{syllable} \end{bmatrix} \; \underline{\quad\quad} \\ \underline{\quad\quad} \; \begin{bmatrix} +\text{accented} \\ \text{syllable} \end{bmatrix} \end{matrix} \right\}$

Ex. /pytáty/ → [py^{e}táty^{e}] 'to ask'

DIPHTHONGS

7. $\begin{bmatrix} +\text{cons.} \\ -\text{voc.} \\ +\text{diffuse} \\ +\text{grave} \\ +\text{continuant} \\ +\text{voice} \end{bmatrix} \longrightarrow [-\text{consonantal}] \; / \left\{ \begin{matrix} \begin{bmatrix} -\text{cons.} \\ +\text{voc.} \end{bmatrix} \; \underline{\quad\quad} \; \left\{ \begin{matrix} \begin{bmatrix} +\text{cons.} \\ +\text{voc.} \end{bmatrix} \\ \begin{bmatrix} +\text{cons.} \\ -\text{voc.} \end{bmatrix} \\ \# \end{matrix} \right\} \\ \# \; \underline{\quad\quad} \; \begin{bmatrix} +\text{cons.} \\ -\text{voc.} \end{bmatrix} \end{matrix} \right\}$

Ex. /navčann'a/ → [naučan':a] 'instruction, learning'

/vprava/ → [uprava] 'exercise'

---

[1] [c'] is a positional variant of the phoneme /t'/, (Žovtobrjux, 1969: 374).

8. $$/j/ \rightarrow [i] \;/\; \left\{ \begin{array}{l} \begin{bmatrix} +\text{cons.} \\ -\text{voc.} \end{bmatrix} \begin{bmatrix} -\text{cons.} \\ +\text{voc.} \end{bmatrix} \underline{\quad\quad} \\ \underline{\quad\quad}\;\# \end{array} \right\}$$ [1]

Ex. /májže/ → [máĭže^{y}] 'almost'

The next phonological description in the first component, Description, is the SWD (DSWD). Again, only those rules are stated which are most representative of the SWD and essential for the contrast. The description is divided into the following categories:

A. Phonological Rules
   a) Palatalization
   b) Assimilation
      i. in palatalization
      ii. voice
   c) Geminates
B. Allophonic Membership

A. <u>PHONOLOGICAL RULES</u>

a) <u>PALATALIZATION</u>

1. $$\left\{ \begin{array}{l} \begin{bmatrix} +\text{cons.} \\ -\text{voc.} \\ +\text{diffuse} \\ -\text{grave} \\ +\text{strident} \end{bmatrix}^{2} \\ \begin{bmatrix} +\text{cons.} \\ -\text{voc.} \\ +\text{diffuse} \\ -\text{grave} \\ -\text{strident} \end{bmatrix} \\ \begin{bmatrix} +\text{cons.} \\ +\text{voc.} \\ +\text{continuant} \end{bmatrix} \end{array} \right\} [+\text{sharp}] \;/\; \underline{\quad} \left\{ \begin{array}{c} i \\ j \end{array} \right\}$$

Ex. /sp°idnyci/ → [sp°idne^{y}c"i] 'skirts'

---

[1] The allophones of rules E5, E6, E7, and E8 are positional variants.

[2] These phonemes become palatalized but the palatalized allophones alternate with excessively palatalized allophones. They are in free variation.

/ljal'ka/ → [l'al'ka] 'doll'

2. $$\left\{ \begin{bmatrix} +\text{cons.} \\ -\text{voc.} \\ +\text{diffuse} \\ -\text{grave} \\ +\text{strident} \\ +\text{sharp} \end{bmatrix}^{1} \right\} \text{Except: } z', ʒ' \rightarrow [-\text{sharp}] \; / \; \text{——} \; \#$$

$$\left\{ \begin{bmatrix} +\text{cons.} \\ -\text{voc.} \\ +\text{diffuse} \\ -\text{grave} \\ -\text{strident} \\ +\text{sharp} \end{bmatrix} \right\}$$

Ex. /xlopec'/ → [xlopec] 'boy'

/xodyt'/ → [xodyt] 'walks' (3^{rd} per. sg. ind.)

(Zilnys'kyj, 1925: 352)

3. $$\begin{bmatrix} -\text{cons.} \\ -\text{voc.} \end{bmatrix} \rightarrow \phi \; / \; \begin{bmatrix} +\text{cons.} \\ +\text{sharp} \end{bmatrix} \; \text{——}$$

Ex. /ves"ilje/ → [ves"il'e] 'wedding'

---

[1] These phonemes become depalatalized in word final position but they also alternate with excessively palatalized allophones. Both variants occur frequently in the SWD. This phenomenon is typical of the SWD.

b. ASSIMILATION

i. IN PALATALIZATION

1. $\left\{\begin{bmatrix}+\text{cons.}\\-\text{voc.}\\+\text{diffuse}\\-\text{grave}\\+\text{strident}\end{bmatrix}, \begin{bmatrix}+\text{cons.}\\-\text{voc.}\\+\text{diffuse}\\+\text{grave}\\-\text{strident}\end{bmatrix}\right\}^{1} \longrightarrow [+\text{sharp}] \; / \; — \begin{bmatrix}+\text{cons.}\\+\text{sharp}\end{bmatrix}$

Ex. /na||vesn'i/ → [navy^{e}s'n'i] ~ [navy^{e}s''n'i] 'in the spring'(loc.sg.)

/sp°ivajut'/ → [s'p°ivaiut] ~ [s''p°ivaiut] 'sing' (3rd per.pl.ind.)

/dl'a/ → [d'l'a] 'for'

2. $\begin{bmatrix}+\text{cons.}\\+\text{voc.}\\+\text{continuant}\end{bmatrix} \quad [+\text{sharp}] \; / \; — \begin{bmatrix}+\text{cons.}\\-\text{voc.}\\+\text{sharp}\end{bmatrix}$

/na||kamyzelc'i/ → [nakamy^{e}zel'c'i] 'on the vest' (loc. sg.)

ii. VOICE

1. $\begin{bmatrix}+\text{cons.}\\-\text{voc.}\\-\text{nasal}\\+\text{voice}\end{bmatrix} \rightarrow [-\text{voice}] \; / \; — \left\{\begin{bmatrix}+\text{cons.}\\-\text{voc.}\\-\text{voice}\end{bmatrix}, \#\right\}$

Ex. /storož/ → [storoš] 'guard, night watchman'

/bezpeka/ → [by^{e}spe^{y}ka] 'security, safety'

---

[1] These phonemes become palatalized but they also alternate quite frequently with the excessively palatalized allophones. The excessively palatalized allophones are typical of the SWD.

2. $\begin{bmatrix} +\text{cons.} \\ -\text{voc.} \\ -\text{voice} \end{bmatrix} \longrightarrow [+\text{voice}] \; / \; — \; \begin{bmatrix} +\text{cons.} \\ -\text{voc.} \\ +\text{voice} \end{bmatrix}$

Ex. /pros'ba/ → [proz'ba] 'request'

c. GEMINATES

1. $\begin{bmatrix} +\text{cons.} \\ -\text{voc.} \\ +\text{diffuse} \\ -\text{grave} \\ +\text{nasal} \\ -\text{sharp} \end{bmatrix} \longrightarrow [+\text{tense}] \; / \; — \; \begin{bmatrix} -\text{con.} \\ +\text{voc.} \end{bmatrix}$

Ex. /učennyk/ → [učy^{e}n:e^{y}k] 'pupil'

(Zilyns'kyj, 1925: 356)

B. ALLOPHONIC MEMBERSHIP

1. $\begin{bmatrix} +\text{cons.} \\ -\text{voc.} \\ +\text{diffuse} \\ +\text{grave} \end{bmatrix}^{1} \longrightarrow [+\text{sharp}] \; / \; — \; \begin{Bmatrix} \text{i} \\ \text{j} \end{Bmatrix}$

Ex. /vivsa/ → [v°iu̯sa] 'oats'

/jačmin'/ → [i̯ačm°in] 'barley'

2. $\begin{bmatrix} +\text{cons.} \\ -\text{voc.} \\ +\text{compact} \\ +\text{grave} \end{bmatrix} \longrightarrow [+\text{sharp}] \; / \; — \; \begin{Bmatrix} \text{i} \\ \text{j} \end{Bmatrix}$

Ex. /morgi/ → [morg'i] 'morgen'

---

[1] These phonemes are in complementary distribution. They become slightly palatalized allophones.

3. $\begin{bmatrix} +\text{cons.} \\ -\text{voc.} \\ +\text{compact} \\ -\text{grave} \end{bmatrix} \longrightarrow [+\text{sharp}] \; / \; — \begin{Bmatrix} i \\ j \end{Bmatrix}$

Ex. /naš̆in'e/ → [naš̆'in'e] ~ [naš̆"in'e] 'seed'

4. j → [i̯] / r —

/varju/ → [varu̯] 'cook' (1st per.sg.ind.)

5. /l/ → [l̇] / — $\left\{ \begin{bmatrix} +\text{cons.} \\ -\text{voc.} \end{bmatrix} \right.$
$\left. \begin{bmatrix} -\text{cons.} \\ +\text{voc.} \end{bmatrix} \right\}$
Except: [l̇]
#

Ex. /holka/ → [hol̇ka] 'needle'

/lyst/ → [l̇e^{y}st] 'letter'

6 a) $\begin{bmatrix} t \\ d \end{bmatrix} \rightarrow \begin{bmatrix} c \\ ʒ \end{bmatrix} \; / \; — \begin{Bmatrix} i \\ j \end{Bmatrix}$ [1]

b) $\begin{bmatrix} t' \\ d' \end{bmatrix} \quad \begin{bmatrix} c' \\ ʒ' \end{bmatrix}$

Ex. /tikaty/ → [c'ikaty^{e}] 'to run away'

7. $\begin{bmatrix} +\text{cons.} \\ -\text{voc.} \\ +\text{diffuse} \\ -\text{grave} \\ -\text{strident} \\ +\text{sharp} \end{bmatrix} \longrightarrow [+\text{vocalic}] \; / \; — \begin{bmatrix} +\text{cons.} \\ -\text{voc.} \end{bmatrix}$

Ex. /tryd'c'at'/ → [tre^{y}i̯ c'at] 'thirty'

---

[1] For the SWD these are optional variants. They occur quite frequently in the SWD.

8. $\begin{bmatrix} -\text{cons.} \\ +\text{voc.} \\ -\text{compact} \\ -\text{flat} \\ +\text{grave} \\ +\text{accent} \end{bmatrix} \longrightarrow [+\text{compact}] \; / \left\{ \begin{bmatrix} +\text{cons.} \\ -\text{voc.} \\ +\text{compact} \end{bmatrix} \; \begin{bmatrix} +\text{cons.} \\ -\text{voc.} \\ +\text{diffuse} \\ +\text{grave} \end{bmatrix} \; \begin{bmatrix} +\text{cons.} \\ +\text{voc.} \end{bmatrix} \right\} \; \underline{\quad}$

Ex. /dušý ty/ → [dušé^{y}ty^{e}] 'to stifle, to smother'

/lyst/ → [i̇e^{y}st] 'letter'

Diphthongs

9. $\begin{bmatrix} +\text{cons.} \\ -\text{voc.} \\ +\text{diffuse} \\ +\text{grave} \\ +\text{continuant} \\ +\text{voice} \end{bmatrix} \longrightarrow [-\text{consonantal}] \; / \left\{ \begin{bmatrix} -\text{cons.} \\ +\text{voc.} \end{bmatrix} \; \underline{\quad} \; \begin{bmatrix} +\text{cons.} \\ +\text{voc.} \end{bmatrix} \; \begin{bmatrix} +\text{cons.} \\ -\text{voc.} \end{bmatrix} \; \begin{bmatrix} -\text{cons.} \\ -\text{voc.} \end{bmatrix} \; \#, \; \# \begin{bmatrix} +\text{cons.} \\ -\text{voc.} \end{bmatrix} \; \underline{\quad} \right\}$

Ex. /dyvjus'i/ → [dyu̯u̯us'i] 'look' (1st per. sg. ind. reflex.)

/vduvec'/ → [u̯duvec] 'widower'

10. $/j/ \rightarrow [\text{i̯}] \; / \left\{ \begin{bmatrix} +\text{cons.} \\ -\text{voc.} \end{bmatrix} \; \underline{\quad} \; \# \; \begin{bmatrix} -\text{cons.} \\ +\text{voc.} \end{bmatrix} \; \underline{\quad} \right\}$

Ex. /vojs'ko/ → [voi̯s'ko] 'army'

/takyj/ → [taky^{e}i̯] 'such'

The last phonological description in this component is CE. Likewise only those rules are given which are essential for the contrast. The description is divided into the following categories:

A. Distinctive Feature Matrix

A. Distinctive Feature Matrix

	d	t	ð	θ	n	z	s	b	p	v	f	m	ǰ	č	ž	š	g	k	h	ŋ	I	i	ɛ	e	æ	a	ɔ[1]	o	ʊ	u	ə	j	w	r	l
CONSONANTAL	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+
VOCALIC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+	-	-	-	+
COMPACT	-	-	-	-	-	-	-	-	-	-	-	-	+	+	+	+	+	+	+	-	-	-	-	+	+	+	-	-	-	0	-	-	-	-	-
DIFFUSE	+	+	+	+	+	+	+	+	+	+	+	-	-	-	-	-	-	-	-	+	+	-	-	0	0	0	-	+	+	0	0	0	0	0	
FLAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	+	0	0	0	-	-	+	-	-
GRAVE	-	-	-	-	-	-	-	+	+	+	+	-	-	-	-	+	+	+	-	-	-	-	-	-	+	+	+	+	0	-	+	-	-			
STRIDENT	-	-	-	-	-	+	+	-	-	+	+	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	+	-		
NASAL	-	-	-	-	+	-	-	-	-	-	-	+	-	-	-	-	-	-	-	+	0	0	0	0	0	0	0	0	0	0	-	-	-	-		
CONTINUANT	-	-	+	+	0	0	0	0	0	0	0	0	-	-	+	+	-	-	+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	+		
VOICE	+	-	+	-	+	+	-	+	-	+	-	+	+	-	+	-	+	-	-	+	0	0	0	0	0	0	0	0	0	0	0	0	0	+		
TENSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	+	-	+	-	-	-	+	-	+	-	0	0	0		

Figure X: Distinctive Feature Matrix of Canadian English

[1] Avis (1975) does not give this phoneme in his inventory. He states that the low vowels /a/ and /ɔ/ in CE have merged as /a/. (Avis, 1975: 121, 123-124, 126). See also Walker, 1975: 129. The speech of the informants in this study have both these phonemes.

B. Distinctive Feature Hierarchy

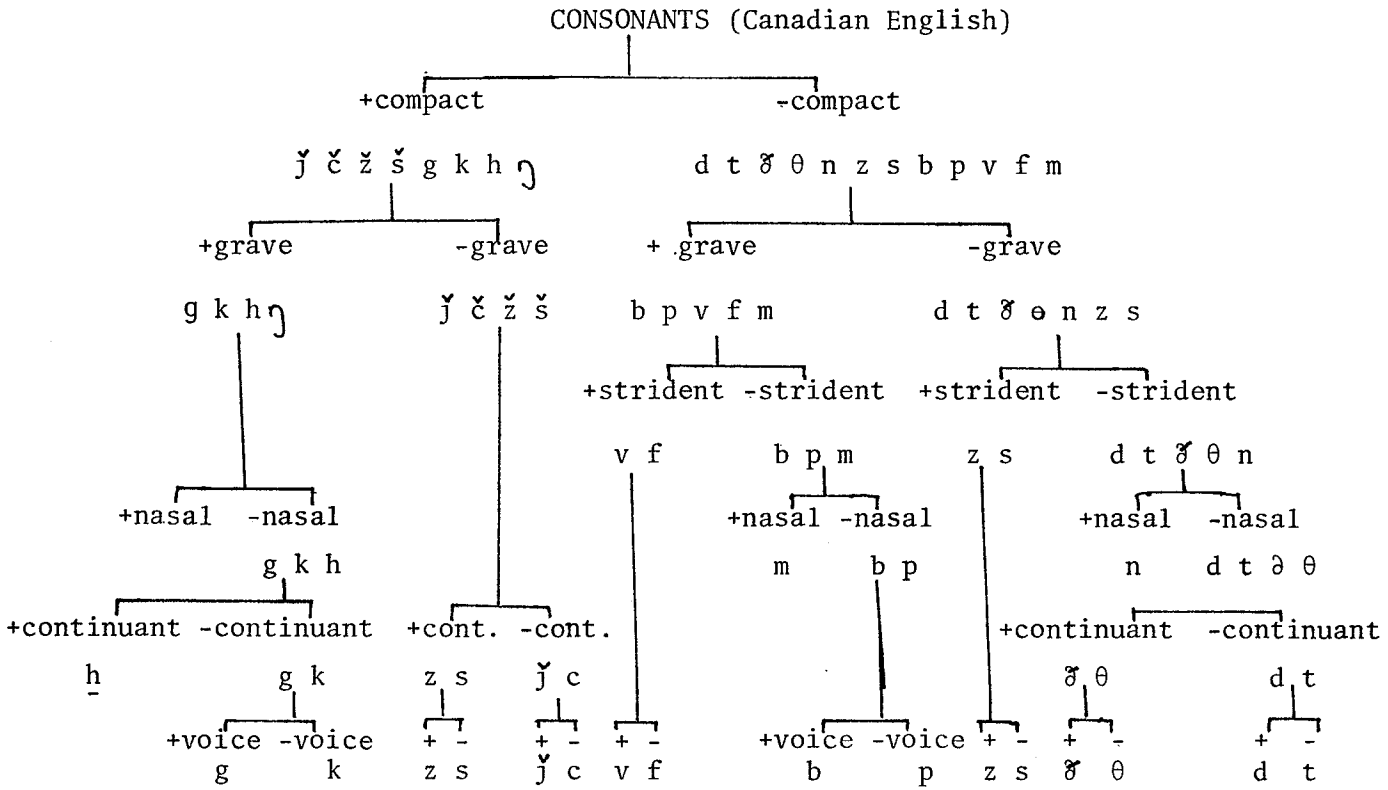

Figure XI: Distinctive Feature Hierarchy of Canadian English Consonants

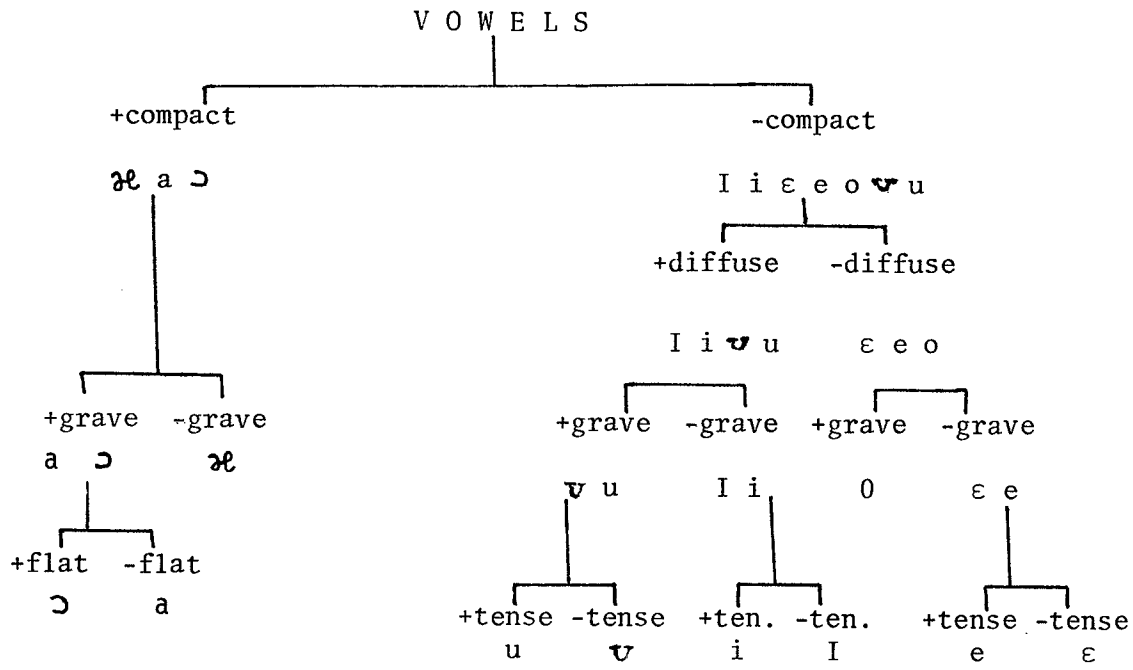

Figure XII: Distinctive Feature Hierarchy of Canadian English Vowels

B. Distinctive Feature Hierarchy

C. Redundancy Rules

D. Phonological Rules

a) Diphthongization

E. Allophonic Membership

C. REDUNDANCY RULES

1. [-cons., +voc., +compact] ⟶ [-diffuse]

2. [-cons., +voc., -compact, αgrave] ⟶ [αflat]

3. [+cons., -voc., -diffuse, -grave] ⟶ [+strident]

4. [+cons., -voc., -diffuse, +grave] ⟶ [-strident]

5. [+cons., -voc., +diffuse, +strident] ⟶ [+continuant]

6. [+cons., -voc., +diffuse, +grave, -strident] ⟶ [-continuant]

7. $\begin{bmatrix} +\text{cons.} \\ -\text{voc.} \\ +\text{nasal} \end{bmatrix} \longrightarrow$ [-continuant]

D. PHONOLOGICAL RULES

a) DIPHTHONGIZATION

1. $\phi \rightarrow \begin{bmatrix} -\text{cons.} \\ -\text{voc.} \\ +\text{diffuse} \\ \alpha\text{grave} \\ \alpha\text{flat} \end{bmatrix} / \begin{bmatrix} -\text{cons.} \\ -\text{voc.} \\ +\text{tense} \\ \alpha\text{grave} \end{bmatrix} \_\_$

(based on Chomsky and Halle, 1968: 183)

N.B. /i/ → [iɪ̯] or [i:]

/e/ → [eɪ̯] or [e:]

/o/ → [oʊ̯] or [o:]

/u/ → [uʊ̯] or [u:]

Ex. /strit/ → [strɪiɪ̯t] 'street'

/tek/ → [teɪ̯k] 'take'

/lod/ → [loʊ̯d] 'loud'

/su/ → [šuʊ̯] 'shoe'

E. ALLOPHONIC MEMBERSHIP

1. /h/ $\longrightarrow$ [+voice] / $\begin{bmatrix} -\text{cons.} \\ +\text{voc.} \end{bmatrix}$ __ $\begin{bmatrix} -\text{cons.} \\ +\text{voc.} \end{bmatrix}$

Ex. /pəɹhǽps/ → [pəɹɦǽps] 'perhaps'

/əhɛ́d/ → [əɦɛ́d] 'ahead'

2. /l/ → [l̥] / $\left\{ \begin{array}{l} \# \_\_ \begin{bmatrix} -\text{cons.} \\ +\text{voc.} \\ -\text{grave} \end{bmatrix} \\ \#\# \_\_ \begin{bmatrix} -\text{cons.} \\ +\text{voc.} \end{bmatrix} \end{array} \right\}$

Ex. /lip/ → [l̥i:p] 'leap'

/əlɔŋ/ → [əl̥ɔŋ] 'along'

/lIsən/ → [l̥Isn̥] 'listen'

3. /l/ → [ɬ] / —— ##

Ex. /bIl/ → [bIɬ] 'bill'

/mIlk/ → [mIɬk] 'milk'

4. ASPIRATION

$$\left\{ \begin{matrix} p \\ t \\ k \\ \check{c} \end{matrix} \right\} \longrightarrow [+\text{tense}] \; / \left\{ \begin{matrix} \# \; \text{——} \\ \text{——} \left[\begin{matrix} \text{-cons.} \\ \text{+voc.} \\ \text{+accent} \end{matrix} \right] \end{matrix} \right\}$$

Exception: /s/ cannot precede

Allophones:

/p/ → [p] , [p^h]

/t/ → [t] , [t^h]

/k/ → [k] , [k^h]

/č/ → [č] , [$č^h$]

Ex. /tiθ/ → [t^hi:θ] 'teeth'

/əpíəɻ/ → [əp^{h}í:əɻ] 'appear'

/hÍtəŋ/ → [hÍt^{h}əŋ] 'hitting'

5.

A. Prevocalic position

B. Postvocalic position

A.

1) Frictionless glide

/r/ → [r]

Ex. /rəf/ → [rʌf] 'rough'

2. Glide with friction [-voice]

$$/r/ \rightarrow [ɹ] \; / \; \left\{ \begin{matrix} d \\ t \\ p \\ k \end{matrix} \right\} \; \_\_$$

Ex. /drai/ → [dɹai] 'dry'

/əkrɔs/ → [əkɹɔs] 'across'

B. POSTVOCALIC POSITION

1. $$/ər/ \rightarrow [ə\text{˞}] \; / \; \left\{ \begin{matrix} \# \left[\begin{matrix} +\text{accented} \\ \text{syllable} \end{matrix} \right] \\ \left[\begin{matrix} -\text{accented} \\ \text{syllable} \end{matrix} \right] \# \end{matrix} \right\}$$

Ex. /fáðər/ → [fáðə˞] 'father'

2. $$/r/ \rightarrow [ə\text{˞}]^{1} \; / \; \left[\begin{matrix} -\text{cons.} \\ +\text{voc.} \\ +\text{accented} \\ \text{syllable} \end{matrix} \right] \; \_\_$$

Ex. /far/ → [fa˞] 'far'

/pur/ → [pu˞] 'poor'

3. $$/r/ \rightarrow [ə\text{˞}] \; / \; \_\_ \left[\begin{matrix} +\text{cons.} \\ -\text{voc.} \end{matrix} \right]$$

Ex. /dark/ → [da˞k] 'dark'

4. $$/r/ \rightarrow [r] \; / \; \left[\begin{matrix} -\text{cons.} \\ +\text{voc.} \end{matrix} \right] \_ \left[\begin{matrix} -\text{cons.} \\ +\text{voc.} \end{matrix} \right]$$

Ex. /hɛri/ → [hɛri:] 'hairy'

---

[1] Avis calls this allophone a "nonsyllabic constricted offglide". (Avis, 1975: 126).

II. The second component in the contrastive phonological analysis model is Contrast$_1$, C_1 SLU and C_1 SWD.

Having given the phonological descriptions of CU, the SWD and SLU those which share the same distinctive features, are now contrasted to determine the similarities and/or differences. The contrast is strictly based on the phonological descriptions provided here.

To a large extent SLU and the SWD share the same distinctive features. The main differences occur in several of the phonemes and the allophones. The phoneme /r/ in the SWD does not have the [±sharp] correlation as in SLU. /r'/ is the SWD depalatalized to become /rj/ → [r͡i]. Compare,

SLU /r/ → [r] , [r']
/r'/ → [r']

SWD /r/ → [r]
/rj/ → [r͡i]

For example,

SLU	[zor'a]	'star'
SWD	[zor͡ia]	'star'

The feature [±tense] was not given in the distinctive feature matrix because it was replaced with the feature [±voice] which is more important to the analysis. Tenseness is a characteristic feature of both SLU and the SWD. However, only /n/ is differentiated for [±tense] in the SWD. In SLU, the [-grave] consonantal phonemes with the exception

of [ʒ] and [ž́], and the liquid have the [±tense] correlation.[1] Thus only /n/ is [+tense] / —— [-cons. +voc.] in the SWD. The [-grave] consonantal phonemes and the liquid are [+tense] / — [-cons. -voc.][-cons. +voc.] in SLU. For example, compare,

SLU /žyttja/ → [žyt':a] 'life'

SWD /žytje/ → [žyt'e] 'life'

/n/ in the SWD: /kam°innyi/ → [kam°in:yi] 'stone' (nom. sg. masc. attr.)

The phonological rules which palatalize phonemes before {i, j} or palatalize by assimilation are the same. However, a difference occurs in the allophones they posit. In SLU all the [+diffuse -grave] consonantal phonemes have palatalized allophones. In the SWD, the [+diffuse -grave -strident] have palatalized allophones, but their [+strident] counterparts have excessively palatalized allophones. But these excessively palatalized allophones alternate freely with the normal palatalized allophones. Excessive palatalization is very typical of the SWD. Even though an alternation occurs the more frequent allophone is the excessively palatalized one. Compare,

---

[1] Compare the development of geminates in SLU and the SWD:

	SLU	SWD
endings:	-ьje ~ -ийe(yje)	-ьje

ь and и (y) were reduced vowels occurring in a weak position. These reduced vowels disappeared. The following element j assimilated progressively with the preceding soft consonant which lengthened it. A further contraction process occurred in the SWD which subsequently shortened these consonants.

	SLU	SWD
	e > [a]	e > a > {[e], [i], [y]}
orthographically	я	

(Žylko, 1966: 77 and Medvedjev, 1964: 112-114)

SLU [s'p°idnyc'i] 'skirts'

SWD [s'p°idnyc'i] ~ [s"p°idnyc"i] 'skirts'

A phonological rule which occurs in the SWD and not in SLU is the depalatalization rule. The $\begin{bmatrix} +\text{diffuse} \\ -\text{grave} \\ -\text{strident} \\ +\text{sharp} \end{bmatrix}$ consonantal phonemes become [-sharp] in word final position. The [+strident] counterparts become either [-sharp] or become excessively palatalized. This is typical only of the SWD. Compare,

SLU [xlopec'] 'boy'

SWD [xlopec] ~ [xlopec"] 'boy'

SLU [xody^{e}t'] 'walks' (3^{rd} per. sg. ind.)

SWD [xody^{e}t] 'walks' (3^{rd} per. sg. ind.)

The differences between and/or similarity of the allophonic membership lie in the degree of palatalization; there are slightly palatalized, palatalized and excessively palatalized allophones. The $\begin{bmatrix} +\text{diffuse} \\ +\text{grave} \end{bmatrix}$ consonantal phonemes before $\begin{Bmatrix} i \\ j \end{Bmatrix}$ become slightly palatalized allophones. The [+compact] consonantal phonemes in SLU also become slightly palatalized. In the SWD, on the other hand, the $\begin{bmatrix} +\text{compact} \\ +\text{grave} \end{bmatrix}$ consonantal phonemes are not slightly palatalized but palatalized. Compare,

SLU [k°in'] 'horse'

SWD [k'in] 'horse'

The $\begin{bmatrix} +\text{compact} \\ -\text{grave} \end{bmatrix}$ consonantal phonemes are either palatalized or excessively palatalized. Compare,

SLU [naš°in:'a] 'seed'

SWD [naš'in:'e] ~ [naš"in:'e] 'seed'

There is a tendency in the SWD for [-sharp] $\begin{bmatrix} t \\ d \end{bmatrix} \rightarrow \begin{bmatrix} c \\ ʒ \end{bmatrix} / - \begin{Bmatrix} i \\ j \end{Bmatrix}$ or $\begin{bmatrix} t' \\ d' \end{bmatrix} \rightarrow \begin{bmatrix} c' \\ ʒ' \end{bmatrix}$. They are optional variants in the SWD. In SLU

/t'/ → [c'] / [s'] —— #. This allophone is positional, and optional. Compare,

	SLU	[s°is't'] ~ [s°is'c']	'six'
	SWD	[s'ist] ~ [s'is'c']	'six'
NB	SLU	[t'ikaty^{e}]	'to run away'
	SWD	[t'ikaty^{e}] ~ [c'ikaty^{e}]	'to run away'

A common phenomenon for the SWD is for the $\begin{bmatrix} +\text{diffuse} \\ -\text{grave} \\ -\text{strident} \\ +\text{sharp} \end{bmatrix}$ consonantal phoneme to become vocalic before a consonantal phoneme. This allophone does not occur in SLU. For example, compare,

SLU	[try$^{t'}$c'at']	'thirty'
SWD	[tre^{y}i̯c'at]	'thirty'

Generally speaking, the vowels of the SWD in contrast to the vowels of SLU are articulated much lower. (Žylko, 1966: 177). The vowels of the SWD in unaccented position lose their distinction. For example, compare,

SLU	/e/ → [e^{y}]
SWD	/e/ → [y^{e}]
SLU	/y/ → [y^{e}]
SWD	/y/ → [e^{y}]

For example,

SLU	[py^{e}táty^{e}]	'to ask'
SWD	[pe^{y}táte^{y}]	'to ask'

Compare the vowels in accented position.

SLU	/e/ → [e]
SWD	/e/ → [e^{y}]

SLU /y/ → [y]

SWD /y/ → [y^e]

For example,

SLU [dušý ^{e}ty^e] 'to stifle, to smother'

SWD [dusé ^{y}te^y] 'to stifle, to smother'

In sum, the main difference between SLU and the SWD is in the degree of palatalization. They share the same distinctive features but not all the phonemes are identical. For example, only /n/ is [±tense] in the SWD and /r/ in the SWD does not have the correlation [±sharp]. The major differences in the system have been pointed out primarly in order to account for the omission of a separate distinctive feature matrix for the SWD.

III. The third component in the contrastive phonological analysis model is $Contrast_2$, $C_1 \overset{SLU}{SWD}$ and C_2CE.

From a theoretical point of view, the distinctive features are those features which are essential to each phonological system and their order of importance in the system. (Halle, 1971: 34). The processes which are fundamental to the phonemes and allophones are specified in the phonological rules and in the allophonic membership. Thus, a discussion of the differences and/or similarities in CE and the Ukrainian system is in order.

Two processes which are important and essential to the SWD and SLU are palatalization and palatalization by assimilation. Additionally, phonemes are differentiated for the D.F. [±sharp]. CE does not differentiate phonemes for [±sharp] nor does it have palatalization on the phonological level, Palatalization does exist in CE but only on the morphophonological level.

SLU, the SWD and CE differentiate phonemes for the D.F. [±voice]. The [+compact, +grave, +continuant] consonantal phonemes of SLU and the SWD further differentiate these phonemes for the feature [±voice], viz., /h/ - [-voice], /x/ - [+voice]. CE similarly has the [+compact, +grave, +continuant] phoneme. When the CE distinctive feature hierarchy is examined, this phoneme is not further differentiated for [±voice]. Only one such phoneme exists which is [-voice], /h/. CE does have a [+voice] counterpart, [ɦ], but it is the voiced allophone of /h/.

The D.F. [±tense] occurs in all three phonological systems. However, each system uses this feature differently. SLU differentiates certain consonantal phonemes and the liquid with the feature [±tense]. For the SWD this feature is restricted to one phoneme, /n/. Tenseness in SLU and the SWD is used to differentiate lengthening only in certain consonantal phonemes and the liquid. In CE tenseness does not apply to consonantal phonemes or to the liquid but rather to aspirated consonant. There are four phonemes in CE which have aspirated allophones, /p/ → [p^h]; /t/ → [t^h]; /k/ → [k^h]; /č/ → [$č^h$]. These phonemes become [+tense] in word initial position or before a [-cons., +voc., +accent] phoneme where /s/ cannot precede. [±tense] is phonologically distinctive for consonantal phonemes and the liquid in the Ukrainian system but not for CE. On the other hand, [±tense] is phonologically distinctive for CE vowels but not the Ukrainian vowels.

The vowel system of CE in comparison to the Ukrainian vowel system is much more complex in the sense that not only is the quality [±tense], of CE vowels different from SLU and the SWD but the number of vowels is much greater.

The Ukrainian vowel system has six phoneme, the CE vowel system has eleven phonemes. Both the vowel systems have diphthongs, but the non-syllabic component of the diphthong is treated differently. There are two types of diphthongs in CE. The formation of the first type consists of a vowel accompanied by the homorganic offglide, *i.e.*, if the vowel is $\begin{bmatrix} -\text{grave} \\ +\text{tense} \end{bmatrix}$, then the accompanying glide will be [-grave], if the vowel is $\begin{bmatrix} +\text{grave} \\ +\text{tense} \end{bmatrix}$, then the accompanying glide will be [+grave]. For example, /i/ → [ij]; /e/ → [ej]; /o/ → [ow/; /u/ → [uw]. The second type is not homorganic but a glide accompanies the vowel. For example, the CE diphthongs: /ai/, /au/ and /ɔi/. Diphthongs, in the Ukrainian vowel systems, as Burstynsky (1978) states, indicate the non-syllabic component in the orthography, *i.e.*, /j/ → [i̯] for the palatal glide and /v/ → [u̯] for the velar glide (Burstynsky 1978: XIV).

Voice assimilation occurs in all the systems. In CE, SLU and the SWD voiceless consonants become voiced before consonants. Schane states the "assimilation has a natural explanation in coarticulation. In languages which have voicing contrasts for obstruents, invariably in clusters, the distinctions are neutralized and all obstruents must agree in voicing. This type of assimilation appears to be a consequence of inherent difficulties in adjusting the glottis for different voicing states for sequences of segments of the same type." (Schane, 1973: 61).

In sum the differences between the Ukrainian phonological system and the CE system is:

1) Ukrainian differentiates [+sharp] from [-sharp] phonemes, CE does not have this feature.
2) Palatalization is an important phonological process in the Ukrainian system, CE does not have palatalization on the phonological level.

3. $\begin{bmatrix} +\text{compact} \\ +\text{grave} \\ +\text{continuant} \end{bmatrix}$ consonantal phonemes are further differentiated for [±voice], CE does not further differentiate the phoneme.

4. Consonantal phonemes and the liquid are differentiated in the Ukrainian system for [±tense]. CE differentiates [±tense] in vowels.

5. Phoneme /r/ in CE is $\begin{bmatrix} -\text{cons.} \\ -\text{voc.} \end{bmatrix}$, in the Ukrainian system it is $\begin{bmatrix} +\text{cons.} \\ +\text{voc.} \end{bmatrix}$.

IV. The fourth component in the contrastive phonological analysis model is Selection.

The section on Selection provides the list of distinctive features, phonological processes, phonemes and allophones which were found to be different in the two contrasts. The list consists of the following:

A. Distinctive Feature [±sharp] and Palatalization.

B. Distinctive Feature [±tense] with Regard to Geminates and Aspiration.

C. $\begin{bmatrix} -\text{cons.} \\ +\text{voc.} \end{bmatrix}$ and Distinctive Feature [±tense]

D. Distinctive Feature [±voice] with Regard to $\begin{bmatrix} +\text{compact} \\ +\text{grave} \end{bmatrix}$ Consonantal Phonemes

E. Voice Assimilation

F. $\begin{bmatrix} +\text{cons.} \\ +\text{voc.} \\ -\text{continuant} \end{bmatrix}$ phoneme.

G. Dialectal Allophone [ɪ̯]

This inventory, consisting of seven factors, is the basis for determining phonological interference in the speech of three generations of Canadian Ukrainians which is examined in the Innovations.

CHAPTER IV

CANADIAN VARIANT OF THE UKRAINIAN LANGUAGE (INNOVATIONS)

4.0 Introduction

The phonological analysis of the Canadian variant of the Ukrainian language is presented in the following manner:

1) The seven factors given in the Selection are examined separately and designated by a letter. For example,

   A. Distinctive Feature [±sharp] and Palatalization.

2) Each factor is further subdivided according to the different innovations occurring within each factor and designated by an Arabic numeral. For example,

   A. Distinctive Feature [±sharp] and Palatalization

      1. Depalatalization [-sharp]

3) After the innovation is stated, the four groups of informants[1] are examined for the innovation. Each generation is designated by a Roman numeral. For example,

   A. Distinctive Feature [±sharp] and Palatalization.

      1. Depalatalization, [-sharp].

      I. First Generation Canadian Ukrainians (CU_1).

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[1] Recall in Chapter I; Fieldwork and Informants.

4) Examples of the variant from each generation are given in a broad phonetic transcription. The more common form is cited first.

5) A discussion follows after each factor is examined.

4.1 Canadian Variant

A. Distinctive Feature [±sharp] and Palatalization

1. DEPALATALIZATION, [-sharp]

I. CU_1

The $\begin{bmatrix} +\text{diffuse} \\ -\text{grave} \\ +\text{sharp} \end{bmatrix}$ consonantal phonemes frequently became [-sharp] in word-final position. For example, compare

CU_1	with	SLU	
[stoi̯it] ~ [stoi̯it']		[stoi̯it']	'stands' (3^{rd} per. sg. ind.)
[ol'ivec] ~ [ol'ivec']		[ol'ivec']	'pencil'
[t'in] ~ [t'in']		[t'in']	'shadow'
[rozmou̯l'ai̯ut] ~ [rozmou̯l'ai̯ut']		[rozmou̯l'ai̯ut']	'converse' (3^{rd} per.pl.ind.)
[i̯e^{y}zyt] ~ [i̯e^{y}zyt']		[i̯e^{y}zyt']	'lays' (3^{rd} per. sg. ind.)
But [pe^{y}re^{y}laz']		[pe^{y}re^{y}laz']	'climb over' (2^{nd} per.sg.imper.)

Phonemes /d'/:/d/ , /ʒ'/:/ʒ/ and /z'/:/z/ show stable palatalization.

The $\begin{bmatrix} +\text{diffuse} \\ -\text{grave} \\ \pm\text{sharp} \end{bmatrix}$ consonantal phonemes in initial and medial word positions became the [-sharp] phonemes and depalatalization also occurred.[1] However, the [+sharp] and palatalized forms predominate. For example, compare

CU_1	with	SLU	
[d'ity^{e}] ~ [dity^{e}]		[d'ity^{e}]	'children' (nom. pl.)
[v°is'im]		[v°is'im]	'eight'
[prac'uvaty^{e}] ~ [pracuvaty^{e}]		[prac'uvaty^{e}]	'to work'

[1] Recall the rules in Chapter III.

[t'ikaty^{e}] [t'ikaty^{e}] 'to run away'

[brat's'ky^{e}ǐ] ~ [bratsky^{e}ǐ] [brat's'ky^{e}ǐ] 'brotherly'

[d'akuu̯u] [d'akuu̯u] 'thank you' (1st per. sg. ind.)

The $\begin{bmatrix} +\text{cons.} \\ +\text{voc.} \\ +\text{continuant} \\ -\text{sharp} \end{bmatrix}$ phoneme in initial, medial and final positions became the depalatalized phoneme which alternated frequently with the palatalized phoneme. The [+sharp] phoneme alternated with the [-sharp] phoneme. For example, compare,

CU_1	with	SLU	
[ž'al'] ~ [žal]		[ž'al']	'sorrow'
[sk°il'noi̯i] ~ [sk°ilnoi̯i]		[sk°il'noi̯i]	'school' (attr. gen. sg.)
[s'v°it'l'i] ~ [s'v°itli]		[s'v°it'l'i]	'light, bright' (attr.nom.pl.)
[l'ivoruč] ~ [livoruč]		[l'ivoruč]	'on the left'
[rozmou̯l'ai̯ut'] ~ [rozmou̯lai̯ut]		[rozmou̯l'ai̯ut']	'converse' (3rd per.pl.ind.)
[natural'ne^{y}] ~ [naturalne^{y}]		[natural'ne^{y}]	'natural'

II.

$(CU_{1/2})$

Depalatalization of $\begin{bmatrix} +\text{diffuse} \\ -\text{grave} \end{bmatrix}$ consonantal phonemes before $\left\{ \begin{matrix} i \\ j \end{matrix} \right\}$ and the [-sharp] phoneme rather than the [+sharp] occurred frequently in word-final position. For example, compare

$CU_{1/2}$	with	SLU	
[kres'l'at] ~ [kres'l'at']		[kres'l'at']	'draw' (3rd per. pl. ind.)
[hovory^{e}t] ~ [hovory^{e}t']		[hovory^{e}t']	'talk' (3rd per. sg. ind.)
[š°ist] ~ [š°is't'] ~ [š°is'c']		[š°is't'] ~ [š°is'c']	'six'
[r°izni] ~ [r°iz'n'i]		[r°iz'n'i]	'various, different' (attr.nom.pl.)
[os'in] ~ [os'in']		[os'in']	'autumn'

[m°izyne^{y}c] ~ [m°izyne^{y}c']	[m°izyne^{y}c'] 'little finger'
[palci:] ~ [pal'c'i]	[pal'c'i] 'fingers' (nom. pl.)
[oles] ~ [oles']	[oles'] 'Oles''
[kupaty^{e}s] ~ [kupaty^{e}s']	[kupaty^{e}s'] 'to swim'
[zi:l':a] ~ [z'il':a]	[z'il':a] 'herbs'

The [-sharp] phoneme in word final position is more noticeable than depalatalization before $\{^{i}_{j}\}$. Depalatalization tends to occur more frequently than in CU_1. Phonemes /d'/:/d/ and /ʒ'/:/ʒ/ indicated relatively stable palatalization.

The variation of these phonemes, *i.e.*, the alternation between [+sharp] vs. [-sharp], palatalized vs. depalatalized, in initial and medial word positions begins to occur more frequently than in CU_1. For example, compare

$CU_{1/2}$	with	SLU	
[ti:katy^{e}] ~ [t'ikaty^{e}]		[t'ikaty^{e}]	'to run away'
[ci:n:y^{e}ĭ] ~ [c'in:y^{e}ĭ]		[c'in:y^{e}ĭ]	'valuable' (attr. nom.sg.masc.)
[bud] ~ [bud']		[bud']	'be' (2nd per.sg.imper.)
[l'udsky^{e}ĭ] ~ [l'ud's'ky^{e}ĭ]		[l'ud's'ky^{e}ĭ]	'human' (attr. nom. sg.)
[p°iani:no] ~ [p°ian'ino]		[p°ian'ino]	'piano'

The depalatalization of the $\begin{bmatrix}+\text{cons.}\\+\text{voc.}\\+\text{continuant}\end{bmatrix}$ phoneme before $\{^{i}_{j}\}$ and the [-sharp] counterpart of the [+sharp] phoneme begins to appear more frequently in initial, medial and final positions. For example, compare,

$CU_{1/2}$	with	SLU	
[žality^{e}] ~ [žal'ity^{e}]		[žal'ity^{e}]	'to pity'
[učyte^{y}lka] ~ [učyte^{y}l'ka]		[učyte^{y}l'ka]	'teacher'
[lite^{y}ry^{e}] ~ [l'ite^{y}ry^{e}]		[l'ite^{y}ry^{e}]	'letters'
[t'ilky^{e}] ~ [t'il'ky^{e}]		[t'il'ky^{e}]	'only'
[malunky^{e}] ~ [mal'unky^{e}]		[mal'unky^{e}]	'pictures'
[stoli] ~ [stol'i]		[stol'i]	'table' (loc. sg.)

III. CU_2

The predominance of the [-sharp] phoneme and depalatalization before $\left\{\begin{matrix} i \\ j \end{matrix}\right\}$ in $\left[\begin{matrix} +\text{diffuse} \\ -\text{grave} \end{matrix}\right]$ consonantal phonemes is quite evident in word-initial, medial and final position. In CU_1 and $CU_{1/2}$ palatalization and [+sharp] phonemes still occurred in initial and medial positions. For example, compare

CU_2	with	SLU	
[xody^{e}t]		[xody^{e}t']	'walk' (3^{rd} per. sg. ind.)
[spyt]		[spyt']	'sleep' (3^{rd} per. sg. ind.)
[molodi:]		[molod'i]	'young' (attr. nom. pl.)
[sukni:]		[sukn'i]	'dresses'
[hrajemos]		[hrajemos']	'play' (1^{st} per. pl. reflex.)
[ruci:]		[ruc'i[	'hand' (loc. sg.)
[pracu:ǐ]		[prac'uǐ]	'work' (2^{nd} per. sg. imper.)
[hostu:jemo]		[hos't'ujemo]	'visit with' (1^{st} per.pl.ind.)
[blysko]		[blys'ko]	'near'

CU_2 completely depalatalized the $\left[\begin{matrix} +\text{cons.} \\ +\text{voc.} \\ +\text{continuant} \end{matrix}\right]$ phoneme before $\left\{\begin{matrix} i \\ j \end{matrix}\right\}$, and the [+sharp] counterpart did not occur in initial medial or final positions. A clear [l̪] appeared before /i/, [l]

before /j/ and a dark [ɫ] in place of the [+sharp] phoneme. For example, compare

CU_2	with	SLU	
[da$_{\smile}$li:]		[dal'i]	'further'
[si:ɫ]		[s'il']	'salt'
[lublu]		[l'ubl'u]	'like, love' (1^{st} per.sg.ind.)
[l$_{\smile}$i:s]		[l'is]	'forest'
[pælto]		[pal'to]	'overcoat'
[l$_{\smile}$i:čy^{e}t]		[l'ičy^{e}t']	'count' (3^{rd} per. sg. ind.)
[skIɫky^{e}]		[s'k°il'ky^{e}]	'how much'

IV. CU_3

The depalatalization before $\left\{ \begin{matrix} i \\ j \end{matrix} \right\}$ and [+sharp] → [-sharp] in $\left[\begin{matrix} +\text{diffuse} \\ -\text{grave} \end{matrix} \right]$ consonantal phonemes is clearly indicated in initial, medial and final positions. For example, compare

CU_3	with	SLU	
[i$_{\frown}$ist]		[i$_{\frown}$is't'] ~ [i$_{\frown}$is'c']	'eat' (3^{rd} per.sg.ind.)
[o$_{\cdot}$lesu:]		[o$_{\cdot}$les'u]	'Oles' (voc. sg.)
[porozi:]		[poroz'i]	'doorstep' (loc. sg.)
[červoni:]		[červon'i]	'red' (attr. nom. pl.)
[si:ry^{e}ĭ]		[s'iry^{e}ĭ]	'grey' (attr. nom. sg.)
[sti:nax]		[s't'inax]	'walls' (loc. pl.)
[di:ty^{e}]		[d'ity^{e}]	'children'
[pracu:i$_{\frown}$ut]		[prac'ui$_{\frown}$ut']	'work, study (3^{rd} per.pl.ind.)
[den]		[den']	'day'

The clear [l$_{\smile}$], [l] and the dark [ɫ] also replace the SLU $\left[\begin{matrix} +\text{cons.} \\ +\text{voc.} \\ +\text{continuant} \end{matrix} \right]$ phoneme in initial, medial and final positions. For

example, compare

CU_3	with	SLU	
[koḷi:na]		[kol'ina]	'knees'
[oḷha]		[ol'ha]	'Ol'ha'
[vasIḷ]		[vasyl']	'Vasyl''
[ḷi:kot]		[l'ikot']	'elbow'
[maluvaty^{e}]		[mal'uvaty^{e}]	'to draw'
[sv°itḷi:še^{y}]		[s'v°it'l'iše^{y}]	'lighter, brighter'
[rozmoṷlaty^{e}]		[rozmoṷl'aty^{e}]	'to converse'

2. Excessive Palatalization, [+sharp], Overpalatalization

I. CU_1

The $\begin{bmatrix} +\text{diffuse} \\ -\text{grave} \\ +\text{strident} \end{bmatrix}$ consonantal phonemes quite frequently become excessively palatalized before $\begin{Bmatrix} i \\ j \end{Bmatrix}$. Their [+sharp] counterparts also become excessively palatalized. For example, compare these phonemes in initial, medial and word final positions.

CU_1	with	SLU	
[oḭes"] ~ [oḭes']		[oḭes']	'Oles''
[babus"i] ~ [babus'i]		[babus'i]	'grandmother' (loc. sg.)
[s"ino] ~ [s'ino]		[s'ino]	'hay'
[ol'ivc"i] ~ [ol'ivc'i]		[ol'ivc'i]	'pencils' (nom. pl.)
[pe^{y}re^{y}laz"] ~ [pe^{y}re^{y}laz']		[pe^{y}re^{y}laz']	'climb over' (2nd per.sg.imper.)
[s"ohodn'i] ~ [s'ohodn'i]		[s'ohodn'i]	'today'
[uče^{y}nyc"a] ~ [uče^{y}nyc'a]		[uče^{y}nyc'a]	'school girl'
[v°is"im] ~ [v°is'im]		[v°is'im]	'eight'

There is a tendency for $\begin{bmatrix} t \\ d \end{bmatrix} \rightarrow \begin{bmatrix} c \\ ʒ \end{bmatrix} / \text{—} \begin{Bmatrix} i \\ j \end{Bmatrix}$ or

$\begin{bmatrix} t' \\ d' \end{bmatrix} \rightarrow \begin{bmatrix} c' \\ ʒ' \end{bmatrix}$. For example, compare

CU_1	with	SLU	
[t'ikaty^e] ~ [c'ikaty^e]		[t'ikaty^e]	'to run away'
[bat'kov°i] ~ [bac'kov°i]		[bat'kov°i]	'father' (dat. sg.)
[zat'inku] ~ [zac'inku]		[zat'inku]	'shade' (loc. sg.)
[p°i̯at] ~ [p°i̯ac'] ~ [p°i̯at']		[p°i̯at']	'five'
[d'aku i̯u] ~ [ʒ'aku i̯u]		[d'aku i̯u]	'thank' (1st per. sg. ind.)
[pry^{e}xod'] ~ [pry^{e}xoʒ']		[pry^{e}xod']	'come' (2nd per. sg. imper.)
[d'il'anka] ~ [ʒ'il'anka]		[d'il'anka]	'lot, plot (of land)'
[hod'imo] ~ [hoʒ'imo]		[hod'imo]	'let us go' (1st per.pl.imper.)

These variants vary frequently as do the excessively palatalized variants in CU_1. The $\begin{bmatrix} +cons. \\ +voc. \\ +continuant \end{bmatrix}$ phoneme tends to become [+sharp] before all vowels other than /i/. For example, compare

[kan'iku l̇y^e] ~ [kan'ikul'y^e]	[kan'iku l̇y^e]	'holidays'
[o l̇enka] ~ [ol'enka]	[o l̇enka]	'Olenka'
[ma l̇e] ~ [mal'e]	[ma l̇e]	'small' (attr. nom.sg.neut.)
[i̯abluko] ~ [i̯abl'uko]	[i̯abluko]	'apple'
[o l̇es'] ~ [ol'es']	[o l̇es']	'Oles''

II. $CU_{1/2}$

The $\begin{bmatrix} +diffuse \\ -grave \\ +strident \end{bmatrix}$ consonantal phonemes become excessively palatalized before $\left\{ \begin{matrix} i \\ j \end{matrix} \right\}$. Similarly the [+sharp] counterparts are excessively palatalized in word initial, medial and final positions. However, excessive palatalization is not as frequent as it was in CU_1. For

example, compare

$CU_{1/2}$		with	SLU	
[s'oma]	[s"oma]		[s'oma]	'seventh'
[χranc'i]	[χranc"i]		[χranc'i]	'in the morning'
[kupaty^{e}s']	[kupaty^{e}s"]		[kupaty^{e}s']	'to swim'

Likewise there is a tendency for $\begin{bmatrix} t \\ d \end{bmatrix} \rightarrow \begin{bmatrix} c \\ ʒ \end{bmatrix} / \text{—} \begin{Bmatrix} i \\ j \end{Bmatrix}$ or $\begin{bmatrix} t' \\ d' \end{bmatrix} \rightarrow \begin{bmatrix} c' \\ ʒ' \end{bmatrix}$. The pronunciation of these phonemes as [+strident] begins to alternate with a [+compact] variant. /t/:/t'/, /d/:/d'/ appear more frequently as [+compact], viz., [č] and [ǯ], respectively, and to a lesser degree as [+strident]. Thus, a new innovation begins with $CU_{1/2}$. For example, compare

	$CU_{1/2}$	with	SLU	
[bač°ko] ~ [bac'ko] ~ [bat'ko]			[bat'ko]	'father'
[č°ikaty^{e}] ~ [c'ikaty^{e}] ~ [t'ikaty^{e}]			[t'ikaty^{e}]	'to run away'
[ǯ°akuu̯] ~ [ʒ'akuu̯] ~ [d'akuu̯]			[d'akuu̯]	'thank' (1^{st} per.sg.ind.)
[hosč°a] ~ [hos'c'a] ~ [hos't'a]			[hos't'a]	'guest' (gen. sg.)

The $\begin{bmatrix} +\text{cons.} \\ +\text{voc.} \\ +\text{continuant} \end{bmatrix}$ phoneme becoming [+sharp] before all vowels other than /i/ is increasingly noticeable. For example, compare

[hol'uba] ~ [holuba]	[holuba]	'light blue' (attr.nom.sg.fem.)
[hol'ova] ~ [holova]	[holova]	'head'
[xl'opc'i] ~ [xlopc'i]	[xl opc'i]	'boys'
[hol'osno] ~ [holosno]	[holosno]	'loudly'

III. CU_2

Excessive palatalization in $\begin{bmatrix} +\text{diffuse} \\ -\text{grave} \\ +\text{strident} \end{bmatrix}$ consonantal phonemes

was not attested. Similarly /t/:/t'/ or /d/:/d'/ did not become [+strident] but only [+compact]. For example, compare,

CU_2	with	SLU	
[pobač°kovi] ~ [pobat'kov°i]		[pobat'kov°i]	'patronymic'
[poč°im] ~ [pot'im]		[pot'im]	'after'
[nahorož°i] ~ [nahorod'i]		[nahorod'i]	'in the garden' (loc. sg.)

The $\begin{bmatrix} +\text{cons.} \\ +\text{voc.} \\ +\text{continuant} \end{bmatrix}$ phoneme habitually becomes [+sharp] before vowels other than /i/. However, this phenomenon is also attested in the phoneme /n/. /n/ becomes [+sharp] before vowels other than /i/. This phoneme did not occur [+sharp] in the previous generations. For example, compare,

CU_2	with	SLU	
[un'e͡ii] ~ [une͡ii]		[une͡ii]	'she' (gen. sg.)
[pon'e^{y}d'ilok] ~ [pone^{y}d'ilok]		[pone^{y}d'ilok]	'Monday'
[mamy^{e}n'a] ~ [mamy^{e}na]		[mamy^{e}na]	'mother's'
[čol'ov°ik] ~ [čolov°ik]		[čolov°ik]	'man'
[ze^{y}l'en'i] ~ [ze^{y}l̇en'i]		[ze^{y}l̇en'i]	'green' (attr. nom. pl.)
[kr°isl'o] ~ [kr°islo]		[kr°islo]	'chair'
[al'e] ~ [al̇e]		[al̇e]	'but'
[pl'ošča] ~ [plošča]		[plošča]	'area, space'

IV. CU_3

Excessively palatalized consonants and the [+strident] variants were not attested in CU_3. The [+compact] variants, on the other hand, were attested quite frequently. For example, compare,

[ǯ°akuu̯] ~ [dakuu̯]	[d'akuu̯]	'thank' (1st per.sg.ind.)
[oǯ°ah] ~ [odah]	[od'ah]	'clothes'
[d'aǯ°ko] ~ [ǯ°atko]	[d'at'ko]	'uncle'
[bač°ko] ~ [batko]	[bat'ko]	'father'
[p°i̯ač] ~ [p°i̯at]	[p°i̯at']	'five'

The $\begin{bmatrix} +\text{cons.} \\ +\text{voc.} \\ +\text{continuant} \end{bmatrix}$ phoneme and /n/ nearly always become the [+sharp] variant before vowels other than /i/. For example, compare

CU_3	with	SLU	
[mal'e]		[mal̇e]	'small'
[l'ovyu̯]		[lovyu̯]	'caught' (3rd per.sg.ind.)
[vol'os':a]		[volos':a]	'hair'
[me^{y}n'e]		[me^{y}ne]	'I' (gen.sg.)
[harn'e]		[harne]	'nice'

3. Retention of the Glide

I. CU_1

A rarely occurring phenomenon is the retention of the glide after palatalization has taken place. This was attested in only three phonemes, /t/, /d/, /s/, among members of CU_1. For example, compare

CU_1	with	SLU	
[sy^{e}d'at'] ~ [sy^{e}d'i̯at']		[sy^{e}d'at']	'sit' (3rd per.pl.ind.)
[dy^{e}vyty^{e}s'a] ~ [dy^{e}vyty^{e}s'i̯a]		[dy^{e}vyty^{e}s'a]	'to look' (ind.reflex.)
[dy^{e}t'ača] ~ [dy^{e}t'i̯ača]		[dy^{e}t'ača]	'child's' (attr.nom.sg.fem.)

The retention is more obvious and more frequent in the $\begin{bmatrix} +\text{cons.} \\ +\text{voc.} \\ +\text{continuant} \end{bmatrix}$ phoneme than in the consonantal phonemes cited earlier.

For example, compare

CU_1	with	SLU	
[hal'i̯u] ~ [hal'u]		[hal'u]	'Halya' (voc. sg.)
[hul'i̯aty^{e}] ~ [hul'aty^{e}]		[hul'aty^{e}]	'to walk, to stroll'
[mal'i̯unok] ~ [mal'unok]		[mal'unok]	'picture'
[ne^{y}d'il'i̯a] ~ [ne^{y}d'il'a]		[ne^{y}d'il'a]	'Sunday'
[bol'i̯at'] ~ [bol'at']		[bol'at']	'ache' (3^{rd} per.pl.ind.)

II. $CU_{1/2}$

In contrast with the first generation, $CU_{1/2}$ retains the glide not only before /t/, /d/, /s/ but in all the $\begin{bmatrix}+\text{diffuse}\\-\text{grave}\end{bmatrix}$ consonantal phonemes. For example, compare

[babus'i̯a] ~ [babus'a]	[babus'a]	'grandmother'
[m°is'i̯ac'i] ~ [m°is'ac'i]	[m°is'ac'i]	'months' (nom. pl.)
[o̤les'i̯a] ~ [o̤les'a]	[o̤les'a]	'Oles'' (gen. sg.)
[rady^{e}šs'i̯a] ~ [rady^{e}šs'a]	[rady^{e}šs'a]	'consult' (2^{nd} per.sg.reflex.)
[kuxn'i̯a] ~ [kuxn'a]	[kuxn'a]	'kitchen'
[uče^{y}nyc'i̯a] ~ [uče^{y}nyc'a]	[uče^{y}nyc'a]	'school girl'
[po̤lyc'i̯ax] ~ [po̤lyc'ax]	[po̤lyc'ax]	'shelve' (loc. pl.)
[hryc'i̯u] ~ [hryc'u]	[hryc'u]	'Hryc'' (voc. sg.)

Similarly the $\begin{bmatrix}+\text{cons},\\+\text{voc.}\\+\text{continuant}\end{bmatrix}$ phoneme frequently retains the glide. For example, compare

$CU_{1/2}$	with	SLU	
[b°il'i̯ava] ~ [b°il'ava]		[b°il'ava]	'whittish'
[rozmou̯l'i̯a i̯e] ~ [rozmou̯l'a i̯e]		[rozmou̯l'a i̯e]	'converse' (3^{rd} per.sg.ind.)

[ne^{y}d'il'i̯a] ~ [ne^{y}d'il'a] [ne^{y}d'il'a] 'Sunday'

[hal'i̯a] ~ [hal'a] [hal'a] 'Halya'

III. CU_2

Nothing new arises with CU_2 in regard to the retention of the glide. Both the $\begin{bmatrix}+\text{diffuse}\\-\text{grave}\end{bmatrix}$ consonantal phonemes and the $\begin{bmatrix}+\text{cons.}\\+\text{voc.}\\+\text{continuant}\end{bmatrix}$ phoneme were frequently attested with the glide. For example, compare,

CU_2	with	SLU	
[znai̯omte^{y}s'i̯a]		[znai̯omte^{y}s'a]	'acquaint' (2nd per.pl.ind.)
[poros'i̯ata]		[poros'ata]	'piglets'
[š°is'c'na$^{t'}$c'i̯at']		[š°is'c'na$^{t'}$c'at']	'sixteen'
[i̇ys't'i̯a]		[i̇ys't'a]	'leaves'
[tan'i̯a]		[tan'a]	'Tanya'
[sy^{e}d'i̯at']		[sy^{e}d'at']	'sit' (3rd per.pl.ind.)
[dl̯i:i̯a]		[d'l'a]	'for'
[skl̯i:i̯anka]		[skl'anka]	'glass'
[l'i̯ubl'i̯u]		[l'ubl'u]	'like, love' (1st per.sg.ind.)
[b°il̯i:i̯a]		[b°il'a]	'beside'

IV CU_3

The glide is retained after the $\begin{bmatrix}+\text{diffuse}\\-\text{grave}\end{bmatrix}$ consonantal phonemes and the $\begin{bmatrix}+\text{cons.}\\+\text{voc.}\\+\text{continuant}\end{bmatrix}$ phoneme as in CU_2, but more frequently. For example, compare

CU_3	with	SLU	
[de^{y}s'i̯aty^{e}ɪ̆]		[de^{y}s'aty^{e}ɪ̆]	'tenth'
[tat'i̯ana]		[tat'ana]	'Tatyana'
[pi̇e^{y}m°in:y^{e}c'i̯a]		[pi̇e^{y}m°in:y^{e}c'a]	'niece'

[mal'ʲuvaty^{e}] [mal'uvaty^{e}] 'to paint'

[hulʲi:ʲaty^{e}] [hul'aty^{e}] 'to walk; to stroll'

4. Palatalization by Assimilation

I. CU_1

For first generation speakers when palatalization occurs by assimilation the phonemes become either excessively palatalized, viz., the $\begin{bmatrix} +\text{diffuse} \\ -\text{grave} \\ +\text{strident} \end{bmatrix}$ consonantal phonemes, or the palatalized phonemes. Depalatalization rarely occurs. For example, compare

CU_1	with	SLU	
[s''m°ix] ~ [s'm°ix]		[s'm°ix]	'laughter'
[ž''m°il'] ~ [ž'm°il']		[ž'm°il']	'bumble-bee'
[s''n'ih] ~ [s'n'ih]		[s'n'ih]	'snow'
[s''c'iny^{e}][1] ~ [s't'iny^{e}]		[s't'iny^{e}]	'walls'
[studen's'ky^{e}ĭ] ~ [studensky^{e}ĭ]		[studen's'ky^{e}ĭ]	'student' (attr.nom.sg.masc.)
[s''l'ipy^{e}ĭ] ~ [s'l'ipy^{e}ĭ]		[s'l'ipy^{e}ĭ]	'blind' (attr. nom sg. masc.)

II. $CU_{1/2}$

The tendency to produce excessively palatalized variants is not as apparant in this generation as it was in first generation. The phonemes are usually palatalized or become depalatalized if the phoneme which palatalizes by assimilation is depalatalized. For example, compare

$CU_{1/2}$	with	SLU	
[kres'l'at] ~ [kreslat'] ~ [kres'l'at']		[kres'l'at']	'draw' (3^{rd} per.pl.ind.)
[c'v°itut'] ~ [cvItut'] ~ [c''v°itut']		[c'v°itut']	'bloom' (3^{rd} per.pl.ind.)

[1] Note the innovation where /t/ → [c].

[s'l'ozy^{e}] ~ [slozy^{e}] ~ [s"l'ozy^{e}] [s'l'ozy^{e}] 'tears'

III. CU_2

CU_2 tends to depalatalize because palatalization does not usually occur with the phoneme that palatalizes the preceding phoneme. An interesting innovation attested in this group concerns the phoneme /t/. When /t/ becomes [+compact] after palatalization, then the preceding $\begin{bmatrix} +\text{diffuse} \\ -\text{grave} \\ +\text{strident} \end{bmatrix}$ consonantal phoneme, will become [+compact] also. For example, compare

CU_2	with	SLU	
[ɕ°iny^{e}] ~ [sti:ny^{e}]		[s't'iny^{e}]	'walls'

The tendency, however, is to depalatalize. For example, compare,

CU_2	with	SLU	
[smi:tyty^{e}]		[s'm°ityty^{e}]	'to litter'
[zvi:r]		[z'v°ir]	'wild animal'

IV. CU_3

This group also tends to depalatalize. The [+compact] variant through assimilation was also attested; although less frequently. For example, compare

CU_3	with	SLU	
[sl̥i:dom]		[s'l'idom]	'immediately (after)'
[dla]		[d'l'a]	'for'
[sni:h]		[s'n'ih]	'snow'

Discussion of A. Distinctive Feature [±sharp] and Palatalization.

The four innovations examined under heading A.,

1. Depalatalization, [-sharp]
2. Excessive Palatalization, [+sharp], Overpalatalization
3. Retention of the Glide
4. Palatalization by Assimilation which captures the three innovations above,

center around the secondary articulation feature [+sharp]. The Canadian variant, arose as a result of interference from CE, the SWD and SLU.

Some of the innovations may be attributed to interference from the SWD: the depalatalization of the $\begin{bmatrix} +\text{diffuse} \\ -\text{grave} \\ +\text{sharp} \end{bmatrix}$ consonantal phonemes in word final position, excessive palatalization and the "stridency" of $\begin{bmatrix} t \\ d \end{bmatrix}$ to $\begin{bmatrix} c \\ ʒ \end{bmatrix}$ before $\begin{Bmatrix} i \\ j \end{Bmatrix}$ or $\begin{bmatrix} t' \\ d' \end{bmatrix}$ to $\begin{bmatrix} c' \\ ʒ' \end{bmatrix}$. These processes are typical of the SWD. It is interesting to note that these innovations only occurred in CU_1 and $CU_{1/2}$; the speakers most exposed to the SWD.

The other innovations must be attributed to other influences. These include: retention of the glide, word-initial and - medial depalatalization and the overpalatalization of [l] and [n]. These three innovations are more characteristic of CU_2 and CU_3 than of CU_1 and $CU_{1/2}$. The theory of markedness is used to account for these changes.

A full discussion of markedness theory is not given here; only the basic concepts are explained. Any phoneme may be designated as 'marked' or 'unmarked': "that something which is marked is characterized by the addition of something, for example, /k^w/ carried lip rounding while /k/ does not. In distinctive features it is [+round]." (Hyman, 1975: 145). It is usually the case that the marked phoneme will have the value

(+) and the unmarked the value (-). It can also be said that it is usually the unmarked member which occurs more frequently; "the unmarked member represents the less complex, the normal, or the expected state." (Schane, 1973: 112). Postal states that "ultimately, perhaps some of the strongest evidence for assignment of Marked or Unmarked status will come from physiological and perceptual investigations. Although one must avoid overly simplistic assertions and 'ease of articulation' or the like, it is evident that articulatory and perceptual factors of this sort are behind the linguistic structuring of Marked and Unmarked." (Postal, 1968: 170-171).

Working within this framework, the innovations common to the speech of CU_2 and CU_3 can be seen as a tendency to reduce markedness. The (+) value for the feature [sharp] is more marked than the (-) value.

It is argued that the following innovations tend to reduce markedness.

1. Depalatalization

This is the most simplest example of reducing markedness. Phonemes which are [+sharp] become [-sharp]. In the speech of CU_1, palatalization occurred in initial, medial and final positions, and [+sharp] phonemes occurred initially and medially. Depalatalization before $\left\{\begin{matrix} i \\ j \end{matrix}\right\}$ in $\left[\begin{matrix} +\text{diffuse} \\ -\text{grave} \end{matrix}\right]$ consonantal phonemes and their [+sharp] counterparts becoming [-sharp], begin in $CU_{1/2}$ and becomes progressively more frequent in CU_2 and CU_3. This occurs in initial, medial and final positions. When depalatalization occurs before /i/ the vowel will become [+tense], viz., [i:]. It is interesting to note that when the $\left[\begin{matrix} +\text{cons.} \\ +\text{voc.} \\ +\text{continuant} \end{matrix}\right]$ phoneme is depalatalized, or, its [+sharp] counterpart

becomes [-sharp] in CU_2 and CU_3 /l/ becomes: the clear [l] before /i/ and /i/ becomes [+tense], viz., [i:]; the medial alveolar [l] before /j/. The dark [ɫ] replaces the [+sharp] /l'/ and the preceding vowel will be fronted or [-grave]. The clear and dark variants are allophones of the CE phoneme /l/. These allophones are posited in the same environment in Canadian Ukrainian as they are in CE, viz., [l] before a high front vowel and [ɫ] in syllable final position. CU_2 and CU_3 are exposed more to CE than to SLU or the SWD.

Likewise, a frequent variant beginning with $CU_{1/2}$ and progressively increasing in CU_2 and CU_3 is $\begin{bmatrix} t \\ d \end{bmatrix} \rightarrow \begin{bmatrix} č \\ ǯ \end{bmatrix} / \text{—} \begin{Bmatrix} i \\ j \end{Bmatrix}$ or $\begin{bmatrix} t' \\ d' \end{bmatrix} \rightarrow \begin{bmatrix} č^{\circ} \\ ǯ^{\circ} \end{bmatrix}$. This innovation cannot be directly attributed to interference from CE, SLU or the SWD. This is a common variant resulting from the marked feature [+sharp].

2. Overpalatalization

The tendency to depalatalize did not eliminate palatalization. However, not all consonantal phonemes palatalized in the same environment. In CU_1 and $CU_{1/2}$ only /l/ became palatalized before all vowels other than /i/ and infrequently; /n/ did not palatalize.

In CU_2 and CU_3 not only is /l/ overpalatalized in the environment before all vowels other than /i/ but also /n/. This occurs quite frequently. A slightly palatalized allophone of /l/, viz., [l̇], occurs in SLU before $\begin{Bmatrix} e \\ y \end{Bmatrix}$ and before all vowels, except /i/ in the SWD. These phonemes are clearly palatalized. This innovation cannot be attributed to interference from CE, SLU or the SWD. Contrary to depalatalization, phonemes /l/ and /n/ became [+sharp] in a new environment, before all vowels other than /i/. The palatalization rule is unconsciously applied to this new environment by CU_2 and CU_3 speakers which results in overpalatalization.

3. Retention of the Glide

There is a rule in SLU and the SWD which states that after palatalization has taken place the [-cons., -voc.] segment is deleted. The retention of the glide is attested in all the generations. Common and frequent in all the groups is the retention of the glide after the [+cons., +voc., +continuant] phoneme. In CU_1 the retention was only attested after /t/, /d/ and /s/. In $CU_{1/2}$, CU_2 and CU_3 it was attested in all the [+diffuse, -grave] consonantal phonemes. Burstynsky interprets this phenomenon by arguing that a "re-arrangement of the bundle which included the feature plus palatalized (plus sharp) into a linear arrangement of dental sibilants plus yod. lesja, mitisja." (Burstynsky 1970: 252). Gerus-Tarnawecka states that "in contrast to over-palatalization, the same consonants might be dispalatalized and, as in the case of /s'/, their palatalization element is rearranged and forms a diphthongal combination. This is especially evident in combinations with /a/, *e.g.*, Les-ja, mytys-ja, jak majetes-ja." (Gerus-Tarnawecka, 1978: 95).

These arguments hold true for the [+diffuse, -grave] consonantal phonemes in all the groups and the [+cons., +vos., +continuant] phoneme only in CU_1 and $CU_{1/2}$, viz., the "rearrangement" where the phoneme remains palatalized because of the glide but the remainder consitutes a sequence of two phones, /j + a/ → [j + a] → [ja] which forms a diphthong: [ja], [ju], etc. The [+cons., +voc., +continuant] phoneme in CU_2 and CU_3 similarly retains the glide but the process is different. When the glide is retained before an /a/ the /l/ depalatalizes and becomes a clear [l]; a tense [i:] is inserted and the diphthong follows, [ja]. This was attested only before an /a/.

It is interesting to note that /t/ and /d/ frequently did not retain the glide but rather became [č] and [ǯ], respectively,

especially in CU_2 and CU_3. Since the glide palatalizes the preceding consonantal phonemes which results in the phonemes becoming marked, CU_2 and CU_3 choose the [+compact] variants. Postal states: "one would expect ..... that given two series of related segments, one of which is of the Unmarked type, that sound change will frequently merge the Marked with the Unmarked, or change the Marked in some other way." (Postal, 1968: 170). For CU_2 and CU_3 the marked feature was changed to the [+compact] variant.

4. Palatalization by Assimilation

The variants which occur when palatalization by assimilation applies are the same innovations discussed previously. This phenomenon is characterized as follows:

a) if the phoneme is [+sharp] or palatalized before $\left\{\begin{matrix} i \\ j \end{matrix}\right\}$, then the preceding phoneme is either excessively palatalized[1] or palatalized by assimilation.

b) if the phoneme is [-sharp] or is depalatalized before $\left\{\begin{matrix} i \\ j \end{matrix}\right\}$, then the preceding phoneme is also depalatalized.

c) if /t/:/t'/ or /d/:/d'/ become [č]:[č°] or [ǯ]:[ǯ°], respectively then the preceding $\left[\begin{matrix} +\text{cons.} \\ -\text{voc.} \\ +\text{diffuse} \\ -\text{grave} \\ +\text{strident} \end{matrix}\right]$ phoneme will become [+compact].

The excessive palatalization is, of course, attributed to dialectal interference. This variant is found in CU_1 and infrequently in $CU_{1/2}$. Depalatalization and the [č]:[č°] or [ǯ]:[ǯ°] variants are, of course, examples of reducing markedness which was discussed previously.

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[1] The excessively palatalized allophones are only the $\left[\begin{matrix} +\text{diffuse} \\ -\text{grave} \\ +\text{strident} \end{matrix}\right]$ consonantal phonemes.

CU_1	with	SLU	
[kolos':a] ~ [kolos"a] ~ [kolos'i̯a]		[kolos':a]	'wheat-ears'
[haluz':a] ~ [haluz"a] ~ [haluz'i̯a]		[haluz':a]	'branches'
[stat':a] ~ [stac'a] ~ [stat'i̯a]		[stat':a]	'article'
[nar'ad':a] ~ [nar'aʒ'a] ~ [nar'ad'i̯a]		[nar'ad':a]	'equipment'
[zb°iž°:a] ~ [zb°iž°i̯a] ~ [zb°iža]		[zb°iž°:a]	'grain'
[uzb°ič°:a] ~ [uzb°ič°i̯a] ~ [uzb°iča]		[uzb°ič°:a]	'side (of a road)'

When phonemes /n/ and /l/ become [-tense] they usually retain the glide. There is a tendency for the [+tense] phoneme /n/ to become [-tense] when it is not preceded by a glide. For example, compare,

CU_1	with	SLU	
[znan':a] ~ [znan'i̯a]		[znan':a]	'knowledge'
[den:y^{e}ĭ] ~ [deny^{e}ĭ]		[den'y^{e}ĭ]	'day' (attr.nom.sg.masc.)
[bažan':a] ~ [bažan'i̯a]		[bažan':a]	'wish, desire'
[zusyl':a] ~ [zusyl'i̯a]		[zusyl':a]	'effort'
[proval':a] ~ [proval'i̯a]		[proval';a]	'abyss, precipice'

II. $CU_{1/2}$

Additional innovations do not arise. When the phonemes become [-tense], the excessively palatalized variants, the retention of the glide, the [c] and [ʒ] variants, depalatalization in $\begin{bmatrix}+\text{compact}\\-\text{grave}\end{bmatrix}$ consonantal phonemes and in /n/, especially, all occur. Lengthening still predominates. However, the retention of the glide occurs repeatedly. For example, compare,

$CU_{1/2}$	with SLU	
[volos':a] ~ [volos'i̯a] ~ [volos"a]	[volos':a]	'hair'
[znar'ad':a] ~ [znar'ad'i̯a] ~ [znar'aʒ'a]	[znar'ad':a]	'instrument'
[stol'it':a] ~ [stol'it'i̯a] ~ [stol'ic'a]	[stol'it':a]	'century'
[hodyn:y^{e}k] ~ [hodyny^{e}k]	[hodyn:y^{e}k]	'watch'
[obl̇yč°:a] ~ [obl̇yč°i̯a] ~ [obl̇yča]	[obl̇yč°:a]	'face'
[p°idaš°:a] ~ [p°idaš°i̯a] ~ [p°idaša]	[p°idaš°:a]	'shelter'
[s'il':u] ~ [s'il'i̯u]	[s'il':u]	'salt' (instr.sg.)

III. CU_2

The second generations begins to show new innovations for geminates. Excessively palatalized variants for the $\begin{bmatrix} +\text{diffuse} \\ -\text{grave} \\ +\text{strident} \end{bmatrix}$ consonantal phonemes do not occur. On the other hand, these phonemes retain the glide. For example, compare,

CU_2	with SLU	
[kolos'i̯a] ~ [kolos':a]	[kolos':a]	'wheat ears'
[haluz'i̯a] ~ [haluz':a]	[haluz':a]	'branches' (nom.pl.)

Phonemes /t/ and /d/ in contrast to CU_1 and $CU_{1/2}$ become [č] and [ʒ] when they are [-tense]. These phonemes similarly retain the glide. Both variants occur frequently. For example, compare,

CU_2	with SLU	
[plač°a] ~ [plat'i̯a] ~ [plat':a]	[plat':a]	'dress'
[suʒ°a] ~ [sud'i̯a] ~ [sud':a]	[sud':a]	'judge'

Depalatalization occurs when the $\begin{bmatrix} +\text{compact} \\ -\text{grave} \end{bmatrix}$ consonantal phonemes become [-tense]. The [+tense] /n/ frequently becomes [-tense]. If /n/ stands before a glide, then the glide is usually retained. For example, compare,

CU_2	with	SLU	
[poruč°a] ~ [poruč°:a]		[poruč°:a]	'bannisters'
[be^{y}zdor'iž°a] ~ [be^{y}zdor'iž°:a]		[be^{y}zdor'iž°:a]	'lack of good roads'
[sony^{e}ĭ] ~ [son:y^{e}ĭ]		[son:y^{e}ĭ]	'sleepy'
[hana] ~ [han:a]		[han:a]	'Hanna'
[narožẹ^{y}n'i̯a] ~ [narožẹ^{y}n':a]		[narožẹ^{y}n':a]	'birth'

The phoneme /l/ can still be found to become [+tense], although infrequently. The variant which retains the glide occurs repeatedly. For example, compare,

CU_2	with	SLU	
[ves'il̯i:i̯a] ~ [ves'il':a]		[ves'il':a]	'wedding'
[z'il̯i:i̯a] ~ [z'il':a]		[z'il':a]	'herbs'

It should be noted that the phonemes cited in this generation are still found to become [+tense], although not as frequently as in CU_1 and $CU_{1/2}$.

IV. CU_3

Approximately the same variants occur in CU_3 as in CU_2. The retention of the glide, though, appears more frequently. For example, compare,

CU_3	with	SLU	
[u̯zut'i̯a] ~ [u̯zuč°a]		[u̯zut':a]	'footwear'
[žy^{e}t'i̯a] ~ [žy^{e}č°a]		[žy^{e}t':a]	'life'
[c'iny^{e}ĭ]		[c'in:y^{e}ĭ]	'valuable'
[p°idbor'id'i̯a] ~ [p°idbor'iž°a]		[p°idbor'id':a]	'chin'
[volos'i̯a]		[volos':a]	'hair'
[h°il̯i:i̯a]		[h°il':a]	'branches'
[zb°iž°a]		[zb°iž°:a]	'grain'

2. Aspiration

I. CU_1

Not attested

II. $CU_{1/2}$

There is a tendency for /p/, /t/, /k/ and /č/ to become aspirated in word initial position. For example, compare

$CU_{1/2}$	with	SLU	
[p°ik] ~ [p^{h}ik]		[p°ik]	'baked' (3rd per.sg.ind.)
[tysk] ~ [t^{h}ysk]		[tysk]	'pressure'
[kapusta] ~ [k^{h}apusta]		[kapusta]	'cabbage'
[čolov°ik] ~ [č^{h}olov°ik]		[čolov°ik]	'man'

III. CU_2

The aspirated variants are clearly pronounced in this group. For example, compare

CU_2	with	SLU	
[t^{h}i:katy^e] ~ [č^{h}i:katy^e]		[t'ikaty^e]	'to run away'
[p^{h}e^{y}ro]		[pe^{y}ro]	'pen'
[č^{h}yǐ]		[čyǐ]	'whose'
[k^{h}am°in]		[kam°in']	'stone'
[t^{h}yxo]		[tyxo]	'quite'
[k^{h}i:no]		[k°ino]	'cinema'
[p^{h}ove^{y}rx]		[pove^{y}rx]	'storey, floor'

Aspiration was only attested in word initial position.

IV. CU_3

Similarly the aspirated variants are clearly pronounced. For example, compare,

CU_3	with	SLU	
[t^{h}e^{y}plo]		[te^{y}plo]	'warmth'
[k^{h}i:mnata]		[k°imnata]	'room'

[č^{h}ex]	[čex]	'Czech'
[p^{h}i:ani:no]	[p°ian'ino]	'piano'
[t^{h}i:tka]	[t'itka]	'aunt'
[č^{h}e^{y}tver]	[če^{y}tver]	'Thursday'
[t^{h}i:n] ~ [č^{h}i:n]	[t'in']	'shadow'
[k^{h}oropka]	[koropka]	'box, case'

These variants occurred frequently in word initial position.

Discussion of B. Distinctive Feature [±tense] with regard to Geminates and Aspiration

Contrast$_2$, between $C_1{}^{SLU}_{SWD}$ and C_2CE, discussed the D.F. [±tense] in SLU, the SWD and CE. It was shown that the feature [±tense] (lengthening) was distinctive to certain consonantal phonemes and the [+continuant] liquid in SLU. Only /n/ was differentiated for [±tense] in the SWD. Phonemes: /p/, /t/, /k/ and /č/, became [+tense] (aspirated) allophones in word initial position and before accented vowels where /s/ could not precede. Tenseness (aspriation) is not a distinctive feature of consonants in CE as it is in SLU and the SWD, although it incidentally occurs to those same consonants in English, and in the same positions.

1. Geminates

It is interesting to note the pattern which developed from the innovations in the [+tense] phonemes. Lengthening usually occurred throughout the generations. It would seem that in CU_3 the distinctive feature [+tense] would not be differentiated because tenseness is not a phonological distinction in CE and CE is the main source of interference, especially in third generation. Variants do occur but firstly the phonemes become [-tense] and, secondly, the same innovations occur which were found when the phonemes became [-sharp]. This stems from the fact that phonemes became [+tense] / — $\begin{bmatrix}\text{-cons.}\\\text{-voc.}\end{bmatrix}\begin{bmatrix}\text{-cons.}\\\text{+voc.}\end{bmatrix}$. The pattern formed with palatalization throughout the generations constitutes a mirror image with geminates. Depalatalization, glide retention, excessive palatalization, [c], [ʒ], [č] and [ǯ] variants all occurred.

For CU_1 and $CU_{1/2}$ the innovations are mainly dialectal in nature. The SWD do not differentiate [±tense] phonemes except in /n/. After

the phonemes become [-tense] the same innovations occur as in palatalization. Phonemes /t/ and /d/ become [c] and [ʒ], respectively. The $\begin{bmatrix} +\text{diffuse} \\ -\text{grave} \\ +\text{strident} \end{bmatrix}$ consonantal phonemes become excessively palatalized. Phoneme /n/ rarely becomes [-tense] when it is not preceded by a glide in CU_1 and $CU_{1/2}$. Dialectal interference is also noticed when the $\begin{bmatrix} +\text{compact} \\ -\text{grave} \end{bmatrix}$ consonantal phonemes become [-tense] and depalatalize in CU_1 and $CU_{1/2}$. The glide is seldom retained in CU_1. It begins to be retained with $CU_{1/2}$ and the same process occurs: the formation of a diphthong. The interference for CU_1 and $CU_{1/2}$ stems primarly from the SWD because:

a) the degree of exposure to the SWD is substantial for CU_1 and $CU_{1/2}$.

b) tenseness is only differentiated in /n/ for the SWD.

c) the innovations which occurred when the phonemes became [-tense] are the same as when the phonemes became [-sharp] or depalatalized.

Similarly in CU_2 and CU_3 when the phonemes became [-tense], the same innovations occurred as with the D.F. [±sharp] and palatalization.

Tenseness was found to be more stable in all the generation than palatalization. It is argued that the D.F. [±tense] (lengthening) is not considered to be a so-called 'foreign' feature to the generations, especially, CU_2 and CU_3 as was [±sharp]. The rationale behind this argument lies in the fact that even though CE does not differentiate length in consonantal or liquid phonemes, it does differentiate [±tense] (lengthening) in vowel phonemes. [±tense] is a phonological distinction in the vowel phonemes of CE. Thus, this stability reflects an unconscious

association of the feature [±tense] in the speech of the generations and especially in CU_2 and CU_3.

2. Aspiration

Aspirated allophones of the CE phonemes /p/, /t/, /k/ and /č/ begin to be attested in $CU_{1/2}$. Aspiration was only found in word initial position in $CU_{1/2}$, CU_2 and CU_3. The aspirated variants were clearly pronounced in CU_2 and CU_3. It is interesting to note that in CU_2 and CU_3 when /t/ became aspirated before /i/ in word initial position, palatalization did not occur, the vowel became [i:] and the [č] variant occurred which also became aspirated. These aspirated allophones are very common to CE. Thus, CE has interferred clearly in CU_2 and CU_3. Aspiration was not attested in CU_1 and only infrequently in $CU_{1/2}$.

Burstynsky states that "the English-speaking learner is usually unaware of the phonetic difference between aspirated and unaspirated stops. He simply makes them automatically." (Burstynsky, 1978: XXI). It was found that CU_1 speakers do not aspirate and that the aspiration was clearly audible in CU_2 and CU_3.

C. $\underline{\begin{bmatrix} -\text{cons.} \\ +\text{voc.} \end{bmatrix}}$ and the Distinctive Feature [±tense]

1. $\begin{bmatrix} -\text{compact} \\ -\text{flat} \\ +\text{grave} \end{bmatrix}$ Vowel Phoneme in [±accented] Position.

I. CU_1

The $\begin{bmatrix} -\text{compact} \\ -\text{flat} \\ +\text{grave} \end{bmatrix}$ vowel phoneme frequently becomes [+compact] in both accented and unaccented positions. For example, compare,

CU_1	with	SLU	
[+accent] position:			
[palé^{y}ty^{e}] ~ [palý ty^{e}]		[palý ty^{e}]	'to burn'
[sy^{e}dé^{y}t'] ~ [sy^{e}dý t']		[sy^{e}dý t']	'sit' (3^{rd}per. sg.ind.)
[robé^{y}ty^{e}] ~ [robý ty^{e}]		[robý ty^{e}]	'to work'
[sé^{y}nu] ~ [s ý nu]		[sý nu]	'son' (voc. sg.)
[pé^{y}še] ~ [pý še]		[pý še]	'write' (3^{rd}per. sg.ind.)
[-accent] position:			
[hazéte^{y}] ~ [hazéty^{e}]		[hazéty^{e}]	'newspapers'
[zurnále^{y}] ~ [zurnály^{e}]		[zurnály^{e}]	'magazines'
[se^{y}dé^{y}t'] ~ [sy^{e}dýt']		[sy^{e}dýt']	'sit' (3^{rd}per.sg.ind.)

II. $CU_{1/2}$

This variant, [+compact], is quite frequent in this generation. Both in [+accented] and [-accented] positions. For example, compare,

$CU_{1/2}$	with	SLU	
[ve^{y}lé^{y}k°i] ~ [ve^{y}lýk°i]		[ve^{y}lýk°i]	'big, large' (attr.nom.pl.)
[l'úbe^{y}š] ~ [l'úby^{e}š]		[l'úby^{e}š]	'like, love' (2^{nd}per.sg.ind.)
[d'i̯úče^{y}na] ~ [d'i̯účy^{e}na]		[d'i̯účy^{e}na]	'girl'
[budé^{y}nok] ~ [budýnok]		[budýnok]	'building'
[hodé^{y}na] ~ [hodýna]		[hodýna]	'hour'
[xolodé^{y}l'ne^{y}k] ~ [xolodýl'ny^{e}k]		[xolodýl'ny^{e}k]	'fridge'

III. CU_2

Not attested. The $\begin{bmatrix} -\text{compact} \\ -\text{flat} \\ +\text{grave} \end{bmatrix}$ vowel phoneme did not become [+compact] but rather CE[i:] or [I]. This variant is examined in the

next section (C.2. - CE [tense], [ɔ]).

IV. CU_3

Not attested. The same variant was attested in this generation, viz., [i:] or [I], for the [-compact, -flat, +grave] vowel phoneme. Examples are given in the next section (C.2. - CE [±tense], [ɔ]).

2. CE [±tense], [ɔ]

I. CU_1

There is a tendency for the [-compact, -flat] vowel phonemes of SLU to become either the [±tense] phonemes of CE [-compact, +diffuse, -grave] vowel phonemes. The confusion is still infrequent in CU_1. These phonemes interchange randomly, *i.e.*, no pattern is forming. For example, compare

CU_1	with	SLU	
[sy^{e}dýt'] ~ [sy^{e}dIt]		[sy^{e}dýt']	'sit' (3rd per.sg.ind.)
[s'il'] ~ [sIl']		[s'il']	'salt'
[právy^{e}l'ny^{e}ĭ] ~ [právIl'ny^{e}ĭ]		[právy^{e}l'ny^{e}ĭ]	'right,correct'(attr.nom. sg.masc.)
[c'in:y^{e}ĭ] ~ [cIn:y^{e}ĭ]		[c'in:y^{e}ĭ]	'valuable'(attr.nom.sg.masc.)
[my^{e}xáĭlovy^{e}č] ~ [mi:xáĭlovy^{e}č]		[my^{e}xáĭlovy^{e}č]	'Myxajlovyč'

SLU phonemes /o/ and /u/ become [+tense], though quite infrequently. For example, compare

CU_1	with	SLU	
[p°ízno] ~ [p°ízno:]		[p°ízno]	'late'
[dodómu] ~ [do:dómu:] ~ [dodómu:]		[dodómu]	'homewards'

II. $CU_{1/2}$

Similarly SLU [-compact, -flat] vowel phonemes become [±tense], viz., [i:] or [I], variants, though still infrequently. For example,

compare,

$CU_{1/2}$	with	SLU	
[c'ikava] ~ [cIkava]		[c'ikava]	'interesting'(attr.nom.sg.fem.)
[l̇ýst'a] ~ [l̇i̯:st'a]		[l̇ýst'a]	'leaves'
[sy^{e}d'át] ~ [sId'át']		[sy^{e}d'át']	'sit' (3rdper.pl.ind.)

This group also attests [+tense] variants in /o/ and /u/, though infrequently. A new variant arises in $CU_{1/2}$. SLU /o/ becomes [ɔ]. Once again there is no pattern developing in the usage. For example, compare,

$CU_{1/2}$	with	SLU	
[mal'unok] ~ [mal'unɔk]		[mal'unok]	'picture'
[p°izno] ~ [p°izno:]		[p°izno]	'late'
[ol'ivec] ~ [ɔl̇i̯:vec]		[ol'ivec']	'pencil'
[ol̇es] ~ [o:l̇es]		[ol̇es']	'Oles''
[os] ~ [ɔs]		[os']	'here is (are)'
[u̯zymku] ~ [u̯zymku:]		[uzymku]	'in the winter'
[učen] ~ [u:čen]		[učen']	'school boy'
[tut] ~ [tu:t]		[tut]	'here'
[idu] ~ [idu:]		[idu]	'go' (1st per.sg.ind.)

III. CU_2

SLU vowel phonemes /y/ and /i/ interchange randomly with CE [i:] and [I]. For example, compare,

CU_2	with	SLU	
[vasi:l'] ~ [vasyl']		[vasyl']	'Vasyl''
[kori:sna] ~ [korysna]		[korysna]	'useful'(attr.nom.sg.fem.)
[ze^{y}l̇eni:]	[ze^{y}l̇en'i]	[ze^{y}l̇en'i]	'green' (nom. pl.)

[druži:na]	[družyna]	[družyna]	'wife'
[kanIkuly^{e}]	[kan'ikuly^{e}]	[kan'ikuly^{e}]	'holidays'
[sIm°i̯a]	[s'im°i̯a]	[s'im°i̯a]	'family'
[nIxto]	[n'ixto]	[n'ixto]	'no one'

Phoneme /o/ becomes either [o:] or [ ]. Similarly, /u/ becomes [+tense]. For example, compare,

CU_2	with	SLU	
[boĭko:] ~ [boĭko]		[boĭko]	'Boyko'
[nazavo:di:] ~ [nazavodi:]		[nazavod'i]	'in the factory'
[smačno:] ~ [smačno]		[smačno]	'tasty'
[hɔdi:mo] ~ [hodi:mo:]		[hod'imo]	'let us go' (1^{st} per.pl.imper.)
[kɔrysna] ~ [ko:rysna]		[korysna]	'useful' (attr.nom.sg.fem.)
[u̯satku:] ~ [u̯satku]		[u̯satku]	'in the garden' (loc.sg.)
[u:roky^{e}] ~ [uro:ky^{e}]		[uroky^{e}]	'lessons'
[i̯omu:] ~ [i̯omu]		[i̯omu]	'he' (dat.sg.)
[hnatu:k] ~ [hnatuk]		[hnat'uk]	'Hnatyuk'
[sInu:] [sInu]		[synu]	'son' (voc. sg.)

These variants occur quite frequently.

IV CU_3

The same variants are found in this group but they occur even more frequently. For example, compare

CU_3	with	SLU	
{/i/, /y/} → {[I], [i:]}			
[ti:katy^{e}] ~ [tIkaty^{e}]		[t'ikaty^{e}]	'to run away'
[nadobranIč] ~ [nadobrani:č]		[nadobran'ič]	'good-night'

[čolovIk] ~ [čolovi:k]	[čolov°ik]	'man'
[sl̥i:va]	[slyva]	'plum'
[soročki:]	[soročky]	'shirts'
[i̇eži:t]	[i̇ežyt']	'lay' (3rd per.sg.ind.)
[kartynki:]	[kartynky^{e}]	'pictures'

/o/ → {[o:], [ɔ]}

/u/ → [u:]

For example, compare,

[maslo:]	[maslo]	'butter'
[u̯do:ma] ~ [u̯dɔma]	[u̯doma]	'at home'
[budynɔk]	[budynok]	'building'
[i̯urko:]	[i̯urko]	'Yurko'
[škɔla] ~ [ško:la]	[škola]	'school'
[spo:čatku:] ~ [spočatku:] ~ [spo:čatku]	[spočatku]	'at the beginning'
[roku:]	[roku]	'year' (gen. sg.)

3. Diphthongs

I. CU_3

SLU diphthong [iĭ] becomes the [-compact, +diffuse, -grave, +tense] vowel phoneme of CE. When the CE variant is given, palatalization does not take place. For example, compare,

CU_1 with	SLU	
[syni'iĭ] ~ [syni:]	[syn'iĭ]	'blue' (attr.nom.sg.masc.)
[ode^{y}s'at'iĭ] ~ [ode^{y}s'ati:]	[ode^{y}s'at'iĭ]	'at ten o'clock'

This variant occurs infrequently in this group. The other diphthongal combinations in SLU do not give any variants, viz., the diphthongonal combinations [ou̯],[au̯] etc. and [i̯] in combination with /a/, /o/ → [ai̯], [oi̯]. For example, compare,

[p°išou̯]	[p°išou̯]	'went' (3rd per.sg.ind.)
[žou̯te^{y}]	[žou̯te^{y}]	'yellow' (attr.nom.sg.neut.)
[s'idai̯]	[s'idai̯]	'sit' (2nd per.sg.imper.)
[zvy^{e}čai̯no]	[zvyčai̯no]	'usually'

II. $CU_{1/2}$

In like manner SLU diphthongal combinations do not present any variants with the exception of [ii̯]. This diphthong becomes the $\begin{bmatrix} \text{-compact} \\ \text{+diffuse} \\ \text{-grave} \\ \text{+tense} \end{bmatrix}$ vowel phoneme of CE. For example, compare,

$CU_{1/2}$	with SLU	
[l'itn'ii̯] ~ [l'itni:]	[l'itn'ii̯]	'summer' (attr.nom.sg.masc.)
[poanhl'ii̯s'komu] ~ [poanhl̥i:s'komu]	[poanhl'ii̯s'komu]	'in English'
[tret'ii̯] ~ [treti:]	[tret'ii̯]	'third' (attr.nom.sg.masc.)

III. CU_2

The diphthongal combination [ii̯] similarly became [+tense] /i/ though more frequently. For example, compare,

CU_2	with SLU	
[vi:]	[v°ii̯]	'blow softly' (2nd per.sg.imper.)
[spoki:]	[spok°ii̯]	'quiet,calm'(attr.nom.sg.masc.)
[re^{y}l̥i:hi:noi̯i]	[re^{y}l'ih°ii̯noi̯i]	'religous'(attr.gen.sg.)

IV CU_3

Both SLU [iĭ] and [yĭ] diphthongal combinations became [+tense] /i/. Diphthong [yĭ] becoming [+tense] was not attested in the other groups. For example, compare,

CU	with	SLU	
[ve^{y}ɪ̈yki:]		[ve^{y}ɪ̈yky^{e}ĭ]	'large' (attr.nom.sg.masc.)
[hry^{e}hori:]		[hry^{e}hor'iĭ]	'Hryhorij'
[harni:]		[harny^{e}ĭ]	'nice' (attr.nom.sg.masc.)
[bahatšĭi:]		[bahatšy^{e}ĭ]	'richer'
[ci:n:i:]		[c'in:y^{e}ĭ]	'valuable' (attr.nom.sg.masc.)

4. CE [æ], [ʌ]

I. CU_1

Not attested.

II. $CU_{1/2}$

Not attested.

III. CU_2

SLU /a/ → {[æ], [ʌ]} / —— 1. This occurs quite frequently. For example, compare,

CU_2	with	SLU	
[žurnæt^{y}e]		[žurnaly^{e}]	'magazines'
[spe^{y}ci:æt^{y}ni:]		[spe^{y}c'ial'ny^{e}i]	'special' (attr.nom.sg.masc.)
[hʌtstuk]		[halstuk]	'tie'

IV CU_3

/a/ → {[æ], [ʌ]} / —— 1 is also quite frequently heard in this group. For example, compare

[pʌɬto] [pal'to] 'overcoat'

[hʌɬja] [hal'a] 'Halya'

[raci:onəɬni:] [rac'ional'ny^{e}ĭ] 'rational'(attr.nom.sg.masc.)

Compare the pronounciation of [əɛ] and [ʌ] in CE.

[əɛ] — [əɛnt] 'aunt'

[əɛɬfə] 'alpha'

[ʌ] —— [bʌɬb] 'bulb'

[ʌndə^{r}] 'under'

Discussion of C. $\begin{bmatrix} \text{-cons.} \\ \text{+voc.} \end{bmatrix}$ and the Distinctive Feature [±tense].

The four innovations examined under heading C. are:

1. $\begin{bmatrix} \text{-compact} \\ \text{-flat} \\ \text{+grave} \end{bmatrix}$ Vowel Phoneme in [±accented]

   Position.

2. CE [±tense], [ɔ]

3. Diphthongs

4. CE [əɛ], [ʌ]

The vowel systems of SLU/SWD and CE vary considerably. Firstly, SLU/SWD do not have the distinctive feature [±tense] in vowel phonemes. Secondly, the diphthongs are formed differently. The glide element of the diphthong is indicated in SLU/SWD orthography. CE diphthongs are mostly homorganic. Thirdly, CE has ten vowel phonemes and three diphthongs; SLU has six vowels.

1. $\begin{bmatrix} \text{-compact} \\ \text{-flat} \\ \text{+grave} \end{bmatrix}$ Vowel Phoneme in [±accented]

   Position

In CU_1 and $CU_{1/2}$ the $\begin{bmatrix} \text{-compact} \\ \text{-flat} \\ \text{+grave} \end{bmatrix}$ vowel phoneme became [+compact]. This innovation stems from the SWD where the [+compact] vowel is the

allophone of the phoneme /y/. Also, unaccented vowels in the SWD as a rule lose their distinction and are articulated lower than SLU phonemes. This dialectal innovations is not retained in CU_2 and CU_3. The SLU phoneme /y/ along with /i/ became either [±tense] [i:] or [I]. This variant was also found in CU_1 and $CU_{1/2}$ although not as frequently. The feature [±tense] is not distinctive in SLU/SWD. Thus, the interference stems from CE, especially in CU_2 and CU_3 where CE is the main source of interference for CU_2 and CU_3 groups.

2. CE [±tense], [ɔ]

The English D.F. [+tense] interferred with the SLU phonemes /o/, /u/ in all the groups, less frequently in CU_1 and $CU_{1/2}$. Another variant of SLU /o/ was found, CE [ɔ]. Both these variants were common to CU_2 and CU_3. CE [ɔ] is differentiated from CE [o] by the features $\begin{bmatrix} +\text{compact} \\ -\text{tense} \end{bmatrix}$. SLU [o] is $\begin{bmatrix} +\text{compact} \\ +\text{grave} \end{bmatrix}$. It is differentiated from CE [o] by the features $\begin{bmatrix} -\text{compact} \\ +\text{tense} \end{bmatrix}$ and CE [ɔ] that it is not as flat as SLU [o], *i.e.*, the degree of rounding varies, SLU is much more rounded. Likewise, the main source of interference for CU_2 and CU_3 is CE.

3. Diphthongs

The diphthongal combination of SLU, in general, did not present any innovations with the exception of [iĭ]. In all the generations [iĭ] became the [+tense] CE [i:]. When [iĭ] became [+tense] depalatalization occurred in the preceding phoneme. If the preceding phoneme was /l/ in CU_2 and CU_3 it became the clear [l̪]. The [+tense] variant was more common to CU_2 and CU_3 than to CU_1 and $CU_{1/2}$. SLU [yĭ] only became [+tense] [i:] in CU_3 group. It is evident that the interpretation of the SLU diphthongal combinations [yĭ] and [iĭ], especially in CU_2 and CU_3, stems from the interference of CE where tenseness is phonologically

distinctive. Nontheless this interference is sometimes found in CU_1 and $CU_{1/2}$ which indicates CE is influencing the speech of these groups as well.

4. CE [æ], [ʌ]

SLU /a/ only became $\left\{\begin{matrix}[æ]\\[ʌ]\end{matrix}\right\}$ / —— 1 in CU_2 and CU_3. The distinctive feature differentiating SLU /a/ from CE [æ] is [+grave]. [ʌ] in CE is regarded as an allophone of /ə/ in [+accented] position. (Avis, 1975: 22). However, the [ʌ] variant occurred in both [±accented] position. It is interesting to note that when CE [æ] and [ʌ] occurred before /l/ in syllable final position, /l/ was pronounced as a dark [ɬ]. This pronunciation indicates the interference from CE. The variants were only found in CU_2 and CU_3 which stems from the main source of interference for these two groups.

D. Distinctive Feature [±voice] with regard to $\left[\begin{matrix}+\text{compact}\\+\text{grave}\end{matrix}\right]$ Consonantal Phonemes

1. Intervocalic Position

I. CU_1

The SLU $\left[\begin{matrix}+\text{compact}\\+\text{grave}\\+\text{continuant}\\-\text{voice}\end{matrix}\right]$ consonantal phoneme frequently became the [+voice] CE allophone [ɦ] in intervocalic position. For example, compare,

CU_1	with	SLU	
[ruɦy^e] ~ [ruxy^e]		[ruxy^e]	'motion' (nom. pl.)
[suɦo] ~ [suxo]		[suxo]	'dry'

II. $CU_{1/2}$

Similarly SLU /x/ becomes [ɦ] in intervocalic position. Another variant of /x/ appears, viz., [k], although infrequently in

this group. For example, compare

$CU_{1/2}$	with	SLU	
[ɟiɦaly^{e}] ~ [ɟixaly^{e}] ~ [ɟikaly^{e}]		[ɟixaly^{e}]	'drove' (pl. ind.)
[my^{e}ɦaĭlovy^{e}č] ~ [my^{e}xaĭlovy^{e}č] ~ [my^{e}kaĭlovy^{e}č]		[my^{e}xaĭlovy^{e}č]	'Myxajlovyč'

The [ɦ] variant of all the variants occurring in this group is the more frequent one.

III. CU_2

Both the variants of /x/, viz., [ɦ] and [k], are more frequently found in this group than in CU_1 or $CU_{1/2}$. For example, compare,

CU_2	with	SLU	
[svaɦa] ~ [svaka]		[svaxa]	'daughter-in-laws'mother'
[vuɦa] ~ [vuka]		[vuxa]	'ears'
[pry^{e}ɦod'] ~ [pry^{e}kod']		[pry^{e}xod']	'come' (2nd per.sg.imper.)

IV. CU_3

Likewise the same variants, viz., [ɦ] and [k], are found in intervocalic position. For example, compare,

CU_3	with	SLU	
[kape^{y}l'uɦy^{e}] ~ [kape^{y}l'uky^{e}]		[kape^{y}l'uxy^{e}]	'hats'
[vy^{e}ɦovate^{y}l'ka] ~ [vy^{e}kovate^{y}l'ka]		[vy^{e}xovate^{y}l'ka]	'teacher'
[troɦy^{e}] ~ [troky^{e}]		[troxy^{e}]	'little'

These variants occur quite frequently. The SLU /x/ rarely occurs.

2. Consonant Cluster Distribution

I. CU_1

When the SLU $\begin{bmatrix} +\text{compact} \\ +\text{grave} \\ +\text{continuant} \\ -\text{voice} \end{bmatrix}$ consonantal phoneme occurs in a

consonant cluster the CE $\begin{bmatrix} +\text{compact} \\ +\text{grave} \\ +\text{continuant} \\ -\text{voice} \end{bmatrix}$ consonantal phoneme is given. The CE phoneme is designated as [h] to differentiate it from the [+voice] SLU phoneme [h]. This variant occurs quite frequently. For example, compare,

CU_1	with	SLU	
[kuhn'i] ~ [kuxn'i]		[kuxn'i]	'kitchen' (loc. sg.)
[hmara] ~ [xmara]		[xmara]	'cloud'

II. $CU_{1/2}$

Similarly, SLU /x/ becomes CE [h] when it occurs in a consonant cluster. Another variant of /x/ becomes evident when /x/ → [k]. The latter variant occurs frequently. For example, compare,

$CU_{1/2}$	with	SLU	
[hl'ib] ~ [kl'ib] ~ [xl'ib]		[xl'ib]	'bread'
[hlope^{y}c] ~ [klope^{y}c] ~ [xlopec]		[xlopec']	'boy'
[hmara] ~ [kmara] ~ [xmara]		[xmara]	'cloud'

III. CU_2

When the $\begin{bmatrix} +\text{compact} \\ +\text{grave} \\ +\text{continuant} \\ -\text{voice} \end{bmatrix}$ consonantal phoneme appears in a consonant cluster one of the two following innovations occur:

1) If /x/ is the first element of the consonant cluster, then
   a) a shwa is inserted between the two consonants and /x/ becomes the CE [-voice] [h].

   OR

   b) /x/ → [k] with no shwa insertion.
2) If /x/ is the second element of the consonant cluster, then

a) /x/ → [h̲]

OR

b) /x/ → [k]

For example, compare,

CU_2	with	SLU	
[h̲ə̲vor'iu̲] ~ [kvor'iu̲]		[xvor'iu̲]	'sick' (1^{st} per.sg.ind.)
[h̲ə̲l̲i:b] ~ [kl̲i:b]		[xl'ib]	'bread'
[sh̲ody^{e}t] ~ [skody^{e}t]		[sxody^{e}t']	'descend' (3^{rd} per.sg.ind.)
[h̲ə̲mara] ~ [kmara]		[xmara]	'cloud'

Both variants are frequently found.

IV. CU_3

The same two innovations are frequently found in this group.

For example, compare,

CU_3	with	SLU	
[h̲ə̲to] ~ [kto]		[xto]	'who'
[h̲ə̲lope^{y}c] ~ [klope^{y}c]		[xlope^{y}c']	'boy'
[h̲ə̲vy^{e}l̇yna] ~ [kvy^{e}l̇yna]		[xvy^{e}l̇yna]	'minute'
[sh̲i:d] ~ [ski:d]		[sx°id]	'east'

3. Initial and Final Word Positions

I. CU_1

SLU /x/ in initial or final word position becomes CE [-voice] [h̲]. For example, compare,

CU_1	with	SLU	
[h̲odyty^{e}me^{y}mo] ~ [xodyty^{e}me^{y}mo]		[xodyty^{e}me^{y}mo]	'will walk' (1^{st} per.pl.ind.)

[s'm°ih] ~ [s'm°ix]	[s'm°ix]	'laughter'
[ruh] [rux]	[rux]	'motion'

This variant is frequently found.

II. $CU_{1/2}$

Similarly the CE [-voice] [h] occurs. For example, compare,

$CU_{1/2}$ with	SLU	
[poi̯yc'ah] ~ [poi̯yc'ax]	[poi̯yc'ax]	'shelves' (loc. pl.)
[hapaty^{e}] ~ [xapaty^{e}]	[xapaty^{e}]	'to grab'

The CE [-voice] [h] variant dominates over the SLU form.

III. CU_2

The same variant occurs and the SLU form occurs infrequently. For example, compare,

CU_2 with	SLU	
[hoti:u̯]	[xot'iu̯]	'wanted' (sg. ind.)
[holodno]	[xolodno]	'coldly'
[hor'ih]	[hor'ix]	'nut'

IV. CU_3

CE [-voice] [h] is frequently found but another variant of /x/ occurs, viz., [k], in initial and final word positions. For example, compare,

CU_3 with	SLU	
[harki:u̯] ~ [karki:u̯]	[xark°iu̯]	'Kharkiv'
[hustky] ~ [kustky]	[xustky]	'shawls'
[dah] ~ [dak]	[dax]	'roof'
[sluh] ~ [sluk]	[slux]	'hearing'

The [k] variant occurs infrequently, [h] predominates.

Discussion of D. Distinctive Feature [±voice] with regard to [+compact, +grave] Consonantal Phonemes.

The three innovations examined under heading D., viz.,

1. Intervocalic Position
2. Consonant Cluster Distribution
3. Initial and Final Word Positions center around the D.F. [±voice].

Two [+compact, +grave, +continuant] consonantal phonemes exist in SLU/SWD which are further broken down in the hierarchy into [±voice] forming minimal contrast pairs, viz., /x/ - [-voice] and /h/ - [+voice]. Comparing this to CE only are [+continuant] consonantal phoneme exists, viz., /h/ which is [-voice], and a voiced allophone of that phoneme - [ɦ]. The four groups of Canadian-born speakers of Ukrainian all differentiate a [+voice] and a [-voice] segment but these segments are not the [±voice] SLU [+compact, +grave, +continuant] consonantal phonemes. Thus, several innovations occur as a result of this.

1. Intervocalic Position

Beginning with CU_1 the [-voice] SLU phoneme /x/ becomes the voiced allophone [ɦ] of CE in intervocalic position. This variant frequently alternates with the SLU form. Out of this confusion another variant arises in $CU_{1/2}$, CU_2 and CU_3 which progressively becomes more frequent. This variant is [-voice] as in SLU /x/ but it is not the [+continuant] phoneme but rather the [-continuant]. It is not surprising that this innovation arises because the phoneme /x/ is foreign to CE. This innovation cannot be attributed to dialectal interference even for CU_1 or $CU_{1/2}$ because the SWD have both the [+voice] /h/ and [-voice] /x/ being

phonological distinct.

2. Consonant Cluster Distribution

Similarly when the phoneme /x/ occurs in a consonant cluster the innovations begin already in CU_1 and become progressively more complex. For CU_1 and $CU_{1/2}$, the SLU phoneme /x/ becomes the CE [-voice] phoneme /h/ or [k] (in $CU_{1/2}$). CE does not have any clusters with [x] because this phoneme does not exist in CE. Thus, CU_2 and CU_3 in dealing with the foreign consonant cluster resort to inserting a shwa between the clusters if it is the first element of the cluster or [k], and if it is the second element either [h] or [k] results. For CU_1 and $CU_{1/2}$ they associate the SLU [-voice] phoneme /x/ with the CE [-voice] phoneme /h/. In CU_2 and CU_3 it is not a matter of associating the SLU phoneme but rather of eliminating the foreign cluster and substituting something more comparable to CE. Clusters such as: [kl], [həv], [sk] for [xl], [xv], [sx], respectively.

3. Initial and Final Word Positions

In like manner, beginning with CU_1 /x/ alternates with the [-voice] CE /h/. However in CU_2 only [h] occurs and in CU_3 [h] alternates with [k]. The SLU [-voice] phoneme is associated with the CE [-voice] phoneme /h/ or /k/ in CU_3.

From the three innovations it is evident that the interference is of CE origin. This is the only section examined where the interference stems strictly from CE in all the generations. The difference lies in the interpretation of the SLU phoneme /x/ in the three generations. CU_1 and $CU_{1/2}$ treated the phoneme differently than did CU_2 and CU_3.

E. Voice Assimilation

1. [-voice] → [+voice] / —— [+voice]

I. CU_1

Attested with no problems.

II. $CU_{1/2}$

Attested with no problems.

III. CU_2

Attested with no problems.

IV CU_3

Attested with no problems.

For example, compare,

CU	with	SLU	
/pros'ba/ → [proz'ba]		[proz'ba]	'request'
/vokzal/ → [vogzal]		[vogzal]	'terminus'
/ekzamen/ → [e^{y}gzame^{y}n]		[e^{y}gzame^{y}n]	'examination'
/borot'ba/ → [borod'ba]		[borod'ba]	'fight'

2. [+voice] → [-voice] / — [-voice]

I. CU_1

Attested with no problems.

II $CU_{1/2}$

Attested with no problems.

III. CU_2

Attested with no problems in all phonemes with the exception of the $\begin{bmatrix} +\text{compact} \\ +\text{grave} \\ +\text{continuant} \\ +\text{voice} \end{bmatrix}$ consonantal phoneme. For example, compare,

CU_2	with	SLU	
/nihti/ → [n'ih̲ə̯t'i]		[n'ixt'i]	'nails'

The phoneme /h/ became CE [h̲] instead of SLU /x/ and a shwa was inserted.

IV. CU_3

Attested with no problems with the exception of phoneme /x/. For example, compare,

CU_3	with	SLU	
/lehkyj/ → [l̇eh̲ə̯kyy̆]		[l̇exkyy̆]	'light' (attr.nom.sg.masc.)
/kihti/ → [k°ih̲ə̯t'i]		[k°ixt'i]	'claws'

Similarly, SLU /h/ became CE [-voice] [h̲] with a shwa insertion. This variant is quite frequent in CU_2 and CU_3.

Compare the examples of

[+voice] → [-voice] / —— [-voice] in all generations.

CU	with	SLU	
/ljudstvo/ → [l'utstvo]		[l'utstvo]	'humanity'
/švydšyj/ → [švytsy^{e}y̆]		[švytšy^{e}y̆]	'quicker'
/vidpovid'/ → [v°itpov°id']		[v°itpov°id']	'answer'
/djad'ko/ → [d'at'ko]		[d'at'ko]	'uncle'
/blyz'kyj/ → [bl̇ys'ky^{e}y̆]		[bl̇ys'ky^{e}y̆]	'close' (attr.nom.sg.masc.)
/bosonižky/ → [boson'išky^{e}]		[boson'išky^{e}]	'sandals'

Discussion of E. Voice Assimilation

The innovations examined under heading D. are:

1. [-voice] → [+voice] / —— [+voice]
2. [+voice] → [-voice] / —— [-voice]

In comparison with the other innovations regressive voice assimilation presented the least interference. All the systems have the correlation voiced vs. voiceless with the exception of the [+compact, +grave, +continuant] consonantal phonemes in CE. Thus presenting some problems.

1. [-voice] → [+voice] / — [+voice]

There is a rule in SLU which states that [+cons., -voc., -voice] → [+voice] / — [+cons., -voc., +voice] except: m, n, v, r, l, vowels, j). Therefore, SLU /x/, [-voice], does not become [+voice] before m, n, v, r, l. It is interesting to note that in the previous section, D. Distinctive Feature [±voice] with regard to [+compact, +grave] Consonantal Phonemes, when /x/ occurred before a voiced segment it remained [-voice] but it was usually the CE [-voice] segment which was chosen, [h] or [k]. This usually occurred in CU_2 and CU_3.

2. [+voice] → [-voice] / — [-voice]

Similarly the only problem occurred with phoneme /x/. The SLU [+voice] /h/ did not become the [-voice] /x/. Devoicing occurred, but it was the CE [-voice] [h] which was pronounced. The same situation arises as was discussed in the section dealing with D.F. [±voice] in [+compact, +grave] consonantal phonemes, *i.e.*, the non-existence of the phoneme /x/ in CE. This however, occurred only in CU_2 and CU_3.

In general, voice assimilation occurred naturally in the speech of the three generations. But then, "assimilation has a natural explanation in coarticulation ... assimilation may be related to inherent constraints on the articulatory mechanism. In languages which have voice contrasts for obstruents, invariably in clusters, the distinctions are neutralized and all obstruents must agree in voicing." (Schane, 1973: 61).

SLU, SWD and CE all contrast voice. Thus, the articulation becomes natural.

F. $\left[\begin{array}{l}\text{+cons.}\\ \text{-voc.}\\ \text{+continuant}\end{array}\right]$ Phoneme

1. Depalatalization before /i/

I. CU_1

Not attested. This phoneme is palatalized before /i/.

II. $CU_{1/2}$

Palatalization does occur frequently; however, when depalatalization occurs in prevocalic or intervocalic position it becomes a frictionless glide [R]. For example, compare,

$CU_{1/2}$	with	SLU	
[dur'ity^e] ~ [duRi:ty^e]		[dur'ity^e]	'to be foolish'
[r'iu̯no] ~ [Ri:u̯no]		[r'iu̯no]	'equally'

In prevocalic position after a consonant, /r/ becomes a glide with friction [ɹ]. The SLU form predominates in $CU_{1/2}$. For example, compare,

$CU_{1/2}$	with	SLU	
[dr'imaty^e] ~ [dɹi:maty^e]		[dri:maty^e]	'to doze'

III. CU_3

Depalatalization does occur but not frequently. Likewise, when depalatalization takes place the frictionless glide [R] occurs in prevocalic or intervocalic position and the glide with friction [ɹ] in prevocalic position after a consonantal phoneme. For example, compare,

CU_2	with	SLU	
[tr'iščyt] ~ [tɹi:ščyt]		[tr'iščyt']	'crack' (3^{rd} per.sg.ind.)

[por'ih] ~ [poRi:h]	[por'ih]	'doorstep'
[r'ika] ~ [Rika]	[r'ika]	'river'

IV. CU_3

Depalatalization occurs more frequently than in CU_2. For example, compare,

CU_3	with SLU	
[hoRi:x] ~ [hor'ix]	[hor'ix]	'nut'
[pɹi:zvy^{e}šče^{y}] ~ [pr'izvy^{e}šče^{y}]	[pr'izvy^{e}šče^{y}]	'surname'
[stɹIɬka] ~ [str'ilka]	[str'ilka]	'hand on a clock; arrow'
[Ri:tko] ~ [r'itko]	[r'itko]	'seldom'

2. Depalatalization before /j/

I. CU_1

When depalatalization occurs before /j/, the glide is not deleted. The /j/ → [i̯] / /r/ —. This is quite frequent. For example, compare,

CU_1	with SLU	
[ve^{y}čeri̯a] ~ [ve^{y}čer°a]	[ve^{y}cer°a]	'supper'
[ri̯atuvaty^{e}] ~ [r°atuvaty^{e}]	[r°atuvaty^{e}]	'to save someone'
[pov°itri̯a] ~ [pov°itr°a]	[pov°itr°a]	'air'

II. $CU_{1/2}$

Similarly when depalatalization occurs, the /j/ → [i̯] / /r/ —. The variant is frequent. For example, compare,

$CU_{1/2}$	with SLU	
[buri̯a] ~ [bur°a]	[bur°a]	'storm'
[vari̯u] ~ [var°u]	[var°u]	'cook' (1^{st} per.sg.ind.)

III. CU_2

Depalatalization occurs and the glide is retained but /r/ becomes the frictionless [R] in intervocalic position or word initial position and the glide with friction [ɹ] after a consonantal phoneme. Simple depalatalization occurs. For example, compare,

CU_2	with	SLU	
[hovoru] ~ [hovoR̂iu]		[hovor°u]	'talk' (1^{st} per.sg.ind.)
[zarad] ~ [zaR̂iad]		[zar°ad]	'charge, loading'
[radok] ~ [R̂iadok]		[r°adok]	'line'
[drapaty^{e}] ~ [dɹ̂iapaty^{e}]		[dr°apaty^{e}]	'to scratch'

IV. CU_3

Similarly, the depalatalized consonant may occur as the frictionless glide, or as the glide with friction and the [î] allophone of /j/, or the depalatalized consonant occurs alone. For example, compare,

CU_3	with	SLU	
[svaru] ~ [svaR̂iu]		[svar°u]	'scold' (1^{st} per.sg.ind.)
[m°iraty^{e}] ~ [m°iR̂iaty^{e}]		[m°ir°aty^{e}]	'to measure'
[p°ira] ~ [p°iR̂ia]		[p°ir°a]	'feathers'
[znarad':a] ~ [znaR̂iad':a]		[znar°ad':a]	'instrument'

3. Prevocalic, Postvocalic /r/ with Vowels other than /i/

I. CU_1

Not attested.

II. $CU_{1/2}$

/r/ in prevocalic position becomes a frictionless glide [R] or the glide with friction [ɹ] and in postvocalic position it becomes a nonsyllabic constricted offglide with the preceding vowel, *e.g.*, [ə^{ɻ}].

These variants are relatively infrequent. For example, compare,

$CU_{1/2}$	with	SLU	
[dobre^{y}] ~ [dob⊥e^{y}]		[dobre^{y}]	'good'
[rozmoul'aiut] ~ [Rozmoul'aiut]		[rozmoul'aiut']	'converse' (3^{rd} per.pl.ind.)
[harna] ~ [ha$^{\partial\text{ɻ}}$na]		[harna]	'nice' (attr.nom.sg.fem.)

III. CU_2

The frictionless glide [R] or [⊥] occurs in prevocalic position and the nonsyllabic constricted offglide with the preceding vowel in postvocalic position quite frequently. For example, compare,

CU_2	with	SLU	
[ka$^{\partial\text{ɻ}}$topl'i] ~ [kartopl'i]		[kartopl'i]	'potatoes' (gen. pl.)
[pet⊥o] ~ [petro]		[petro]	'Petro'
[Robyty^{e}] ~ [robyty^{e}]		[robyty^{e}]	'to work'
[zb°i$^{\partial\text{ɻ}}$ka] ~ [zb°irka]		[zb°irka]	'collection'

IV. CU_3

Frictionless glide [R] or the glide with friction [⊥] and the nonsyllabic constricted offglide predominate. For example, compare,

CU_3	with	SLU	
[ž̆u$^{\partial\text{ɻ}}$nɤɬ] ~ [zurnɤɬ]		[zurnal]	'magazine'
[poRoz'i] ~ [poroz'i]		[poroz'i]	'doorstep'
[ky$^{\partial\text{ɻ}}$paty^{e}ĭ] ~ [kyrpaty^{e}ĭ]		[kyrpaty^{e}ĭ]	'snub-nosed' (attr.nom.sg.masc.)
[uRo:ky^{e}] ~ [uroky^{e}]		[uroky^{e}]	'lessons'
[Ro:ž̆ev°i] ~ [rož̆ev°i]		[rozev°i]	'pink' (attr. nom. pl.)

Discussion of F. [+cons., -voc., -continuant] Phoneme

The three innovations examined under heading F. are:

1. Depalatalization before /i/
2. Depalatalization before /j/
3. Prevocalic, Postvocalic /r/ with Vowels other than /i/

The [+cons., +voc., -continuant] phoneme was treated separately from the other [+cons., +voc.] SLU phoneme for two reasons:

a) the nature of the innovations were different,

b) an important difference is the fact that /r/ is a [-cons., -voc.] phoneme in CE and [+cons., +voc.] in SLU.

1. Depalatalization before /i/

Palatalization before /i/ was relatively stable throughout the generations. If /r/ was depalatalized before /i/ then either the CE frictionless glide occurred or the CE glide with friction. Depalatalization behaved differently in comparison to depalatalization in consonantal phonemes. /r/ not only became depalatalized but it also changed to a glide. This, however, occurred mostly in CU_3.

2. Depalatalization before /j/

Interference from the SWD is evident when /j/ → [i] //r/— in CU_1. This form predominates over the SLU form which is slightly palatalized. The same dialectal inteference occurs in $CU_{1/2}$. In CU_2 and CU_3, on the other hand, the innovations which occurred are different. The interference was no longer dialectal but rather stemmed from CE. The following two innovations occurred:

a) simple depalatalization and /r/ remains $\begin{bmatrix} +\text{cons.} \\ +\text{voc.} \end{bmatrix}$

OR

b) [j̊] was retained and /r/ became either the frictionless glide [R] or the glide with friction [ɻ].

The SLU phoneme /r/ became CE [R] or [ɻ].

3. Prevocalic, Postvocalic /r/ with Vowels other than /i/

Basically, the only changes which occurred with /r/ were found in CU_2 and CU_3. In prevocalic position either [R] or [ɻ] occurred and in postvocalic position the nonsyllabic constricted offglide with the preceding vowel. The nonsyllabic constricted offglide was found to be the most common variant in comparison to the other variants. The nature of the interference does, of course, stem from CE. The main source language for CU_2 and CU_3 is CE.

G. Dialectal Allophone [ĭ]

I. CU_1

A fairly common innovation is /d/ → [ĭ]. For example, compare,

CU_1	with	SLU	
/dvadcjat'/ → [dvaĭc'at'] ~ [dva$^{t'}$c'at']	[dva$^{t'}$c'at']	'twenty'	
/visimnadcjat'/ → [v°is'imnaĭc'at'] ~ [v°is'imna$^{t'}$c'at']	[v°is'imna$^{t'}$c'at']	'eighteen'	
/simnadcjat'/ → [s'imnaĭc'at'] ~ [s'imna$^{t'}$c'at']	[s'imna$^{t'}$c'at']	'seventeen'	

II. $CU_{1/2}$

The same innovation occurs though it is not as audible as was in CU_1. For example, compare,

	$CU_{1/2}$	with SLU	
/dvanadcjat'/ →	[dvana$^{t'}$c'at'] ~ [dvanaĭc'at']	[dvana$^{t'}$c'at']	'twelve'
/sistnadcjat'/ →	[s°istna$^{t'}$c'at'] ~ [s°istnaĭc'at']	[s°istna$^{t'}$c'at']	'sixteen'

III. CU_2

Not attested.

IV. CU_3

Not attested.

Discussion of G. Dialectal Allophone [ĭ].

This innovation is clearly dialectal in nature. In the SWD /d/ becomes [+vocalic]. This phoneme assimilates to [ĭ] before a consonantal phoneme which is [+sharp]. The allophone [ĭ] was found only in numerals and only in CU_1 and $CU_{1/2}$. This pronunciation was highly productive in the immigrants' speech, and, likewise, frequent in numerals.

H. Supportive Evidence (Loanwords)

This section has been given to provide additional evidence of CE interference from loadwords which exist in SLU.

I. CU_1

Stable representation of the phonetic norms of SLU in the loanwords.

II. $CU_{1/2}$

Compare,

	$CU_{1/2}$	with SLU	
[ju:nIversy^{e}tet] ~	[un'iversy^{e}tet]	[universy^{e}tet]	'university'
[ɔpera] ~	[opera]	[opera]	'opera'
[k^{h}ɔlʲi:ə^{r}] ~	[kol'ir]	[kol'ir]	'colour'
[fʊtbɔ$^{l'}$] ~	[futbol]	[futbol]	'soccer, football'

III. CU_2

Compare,

CU_2	with	SLU	
[bæɫkɔn] ~ [balkon]		[balkon]	'balcony'
[ho:tɛɫ] ~ [hoteɫ]		[hotel']	'hotel'
[ɛnžəni:əɻ] ~ [i:nžener]		[inžener]	'engineer'
[aktɔəɻ] ~ [aktor]		[aktor]	'actor'
[p^hɔəɻtfɛɫ] ~ [portfeɫ]		[portfel']	'portfolio, briefcase'

IV. CU_3

Compare,

CU_3	with	SLU	
[fIɫm] ~ [f°iɫm]		[f°ilm]	'film'
[æɫbɔm] ~ [æɫbom]		[al'bom]	'album'
[k^hɔnstɹuktəɻ] ~ [k^hɔnstruktor]		[konstruktor]	'constructor'
[mIneRæɫnoi̯i] ~ [mIneraɫnoi̯i]		[m°ineral'noi̯i]	'mineral' (attr.gen.sg.fem.)
[vIktɔəɻ] ~ [vIktor]		[v°iktor]	'Victor'
[t^hi:ətəɻ] ~ [t^hɛator]		[teatr ˋ]	'theatre'

Discussion of H. Supportive Evidence (Loanwords)

The pronunciations of the loanwords clearly indicate a CE interference. The following CE pronunciation characteristics were found:

1. allophones [l̩] and [ɫ]
2. tense vowels
3. aspirated consonants
4. lax vowels
5. [əɻ] and /r/ as a glide

These phonetic characteristics were mostly found in CU_2 and CU_3. It was

shown earlier that the main source of interference for CU_2 and CU_3 is CE.

Figure XIII: DELINEATION OF CANADIAN UKRAINIAN (Summary)

The asterisk * occurring directly after the comment indicates the more common variant/variants.

Groups / Features and/or Phonological rules / Innovations	CU_1	$CU_{1/2}$	CU_2	CU_3
A. Distinctive Feature [+sharp] and Palatalization	frequent in word final position*; initial and medial positions fairly stable palatalization	frequent in final position;* initial and medial positions tendency towards depalatalization*	depalatalization in initial, medial and word final positions	depalatalization in initial, medial and word final positions
1. Depalatalization [-sharp]	—	—	-[ɪ̯] and [ʏ]*	-[ɪ̯] and [ʏ]*
2. Excessive palatalization, [+sharp], Over-palatalization	frequent excessive palatalization;* [c'], [ʒ'] variants*	infrequent excessive palatalization; [c'], [ʒ]* ~ [č], [ǯ]*	no excessive palatalization or [c'], [ʒ']; mainly [č], [ǯ]	no excessive palatalization or [c'], [ʒ']; mainly [č], [ǯ]
	—	/l/ begins to be posited as [+sharp] before vowels other than /i/	/l/ and /n/ frequently become [+sharp] before vowels other than other than /i/*	/l/ and /n/ frequently become [+sharp] before vowels other than other than /i/*

Groups / Features and/or Phonological Rules / Innovations	CU_1	$CU_{1/2}$	CU_2	CU_3
3. Retention of the glide	- infrequently attested only in /d/, /t/, /s/ frequently* after /l/	-frequently in all [+diffuse, -grave] consonantal phonemes /l/ frequently*	-frequent in [+diffuse, -grave] consonantal phonemes* /l/ frequently*	-frequent in [+diffuse, -grave] consonantal phonemes* /l/ frequently
4. Palatalization by assimilation	frequent* excessive palatalization*	frequent* ~ infrequent infrequent palatalization	depalatalization* [č], [ǯ]	depalatalization* [č], [ǯ]
Nature of Interference	SLU and SWD; infrequent CE	infrequent SLU; SWD and CE	infrequent SLU; mainly CE	infrequent SLU; mainly CE

Groups / Features and/or Phonological Rules / Innovations	CU_1	$CU_{1/2}$	CU_2	CU_3
B. Distinctive Feature [±tense] with regard to Geminates and Aspiration				
1. Geminates	lengthening*	lengthening* and infrequently no lengthening	lengthening ~ no lengthening*	lengthening ~ no lengthening*
2. Aspiration	—	attested	attested*	attested*
Nature of Interference	SLU and SWD; infrequent CE	infrequent SLU and SWD; CE	infrequent SLU; some CE	infrequent SLU; some CE

Groups / Features and/or Phonological Rules / Innovations	CU_1	$CU_{1/2}$	CU_2	CU_3
C. [-cons. +voc.] and the Distinctive Feature [±tense]				
1. [-compact -flat +grave] Vowel Phonemes in [±accented] Position	frequent*	frequent*	—	—
2. CE [±tense], [ɔ]	infrequent	infrequent	frequently*	much more frequently*
3. Diphthongs [iĭ] → [i:]	infrequent	frequent*	frequent*	frequent*
[yĭ] → [i:]	—	—	—	frequent
4. [æɛ], [ʌ]	—	infrequent	frequent	frequent*
Nature of Interference	SLU and SWD	SLU and SWD	infrequent SLU; mainly CE	infrequent SLU; mainly CE

Groups / Features and/or Phonological Rules / Innovations	CU_1	$CU_{1/2}$	CU_2	CU_3
D. Distinctive Features [±voice] with regard to [+compact, +grave] Consonantal Phonemes				
1. Intervocalic Position	frequent*	frequent*	frequent*	frequent*
2. Consonant Cluster Distribution	frequent	frequent	frequent* (rearrangement)	frequent* (rearrangement)
3. Initial and Final Word Positions	frequent	frequent	frequent	frequent*
Nature of Interference	SLU and CE	SLU and CE	mainly CE	mainly CE

Groups / Features and/or Phonological Rules / Innovations	CU_1	$CU_{1/2}$	CU_2	CU_3
E. Voice Assimilation				
1. [-voice] [+voice] / — [+voice]	attested*	attested*	attested*	attested*
2. [+voice] [-voice] / — [-voice]	attested*	attested*	attested with the exception of phoneme /x/*	attested with the exception of phoneme /x/*
Nature of Interference	SLU	SLU	SLU and CE	SLU and CE
F. [+cons. +voc. -continuant] Phoneme				
1. Depalatalization before /i/	—	infrequently	infrequently	more frequently

Groups / Features and/or Phonological Rules / Innovations	CU_1	$CU_{1/2}$	CU_2	CU_3
2. Depalatalization before /j/	frequent*	frequent*	frequent	frequent
3. Prevocalic, Postvocalic /r/ with Vowels other than /i/	—	relatively infrequent	frequent*	quite frequent*
Nature of Interference	SLU and SWD	SLU and SWD	SLU infrequently; mainly CE	SLU infrequent, mainly CE
G. Dialectal Allophone [ɣ]	frequent*	relatively infrequent	—	—
Nature of Interference	mainly SWD	SWD	—	—

Groups / Supportive Evidence	CU_1	$CU_{1/2}$	CU_2	CU_3
Loanwords	stable representation of SLU norms	SLU and CE interference and transfer	CE	CE

CHAPTER V

THE PHONOLOGY OF THE CANADIAN VARIANT OF THE UKRAINIAN LANGUAGE AND CONCLUSION

Phonological interference was determined on the basis of contrasting three interacting phonological systems. It was found that the source of interference changed progressively through the four groups. Canadian-born speakers of the CU_1 group had interference mainly from SLU and the SWD, and minimal interference from CE. Canadian-born speakers of the $CU_{1/2}$ group had minimal interference from the SWD, some from SLU and somewhat more interference from CE than was noticed in the CU_1 group. Canadian-born speakers of the CU_2 group had interference basically from CE and with some interference from SLU. For the CU_3 group the source of inteference was CE with only minor influences traceable to SLU.

The innovations which occurred as a result of intereference characterize the phonology of the Canadian variant of the Ukrainian language. The distinctive features of the variant consisted of changes to the two phonological systems which resulted in the following:

Figure XIV: PHONOLOGY OF THE CANADIAN VARIANT

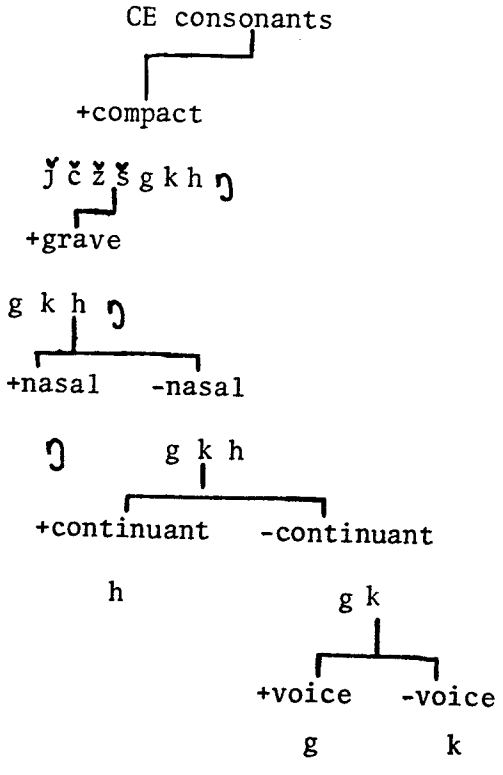
The asterisk * occurring directly after the comment indicates the more common variant

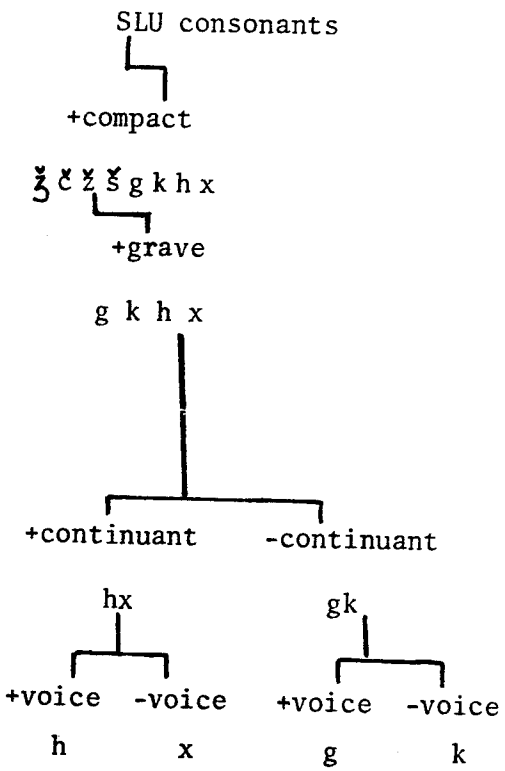
Groups / Distinctive Features	CU_1	$CU_{1/2}$	CU_2	CU_3
1. [+cons. -voc. +diffuse -grave] differentiation of the feature [±sharp]	word final position [-sharp]* ~[+sharp]	word final position [+sharp] ~[-sharp] initial and medial positions [+sharp] ~ [-sharp]	initial, medial and final positions [-sharp]* ~[+sharp]	initial, medial and final positions [-sharp]*
2. [+cons. -voc. +tense] [+cons. +voc. +continuant] differentiation of the feature [±tense]	[+tense]* ~[-tense]	[+tense]~ [-tense]	[+tense]~ [-tense]	[+tense]~ [-tense]*

Groups / Distinctive Features	CU_1	$CU_{1/2}$	CU_2	CU_3
3. [-cons. +voc. +compact +flat]	[+tense]~ [-tense]*	[+tense]~ [-tense]	[+tense]*~ [-tense]	[+tense]*~ [-tense]
[-cons. +voc. -compact +flat]				
differentiation of the feature [±tense]				
4. Phoneme /r/	[+cons. -voc. -continuant]* ~	[+cons. -voc. -continuant]~	[+cons. -voc. -continuant]~	[+cons. -voc. -continuant]~
	[-cons. -voc. -continuant]	[-cons. -voc. -continuant]	[-cons. -voc. -continuant]*	[-cons. -voc. -continuant]*

Groups / Distinctive Features	CU_1	$CU_{1/2}$	CU_2	CU_3
5. [+compact, +grave, +continuant] differentiation of the feature [±voice]	[+voice] [-voice]	[+voice] [-voice]	no differentiation	no differentiation

As Hyman states: "the unmarked member of an opposition occurs more frequently than the marked member." (Hyman, 1975: 145). The marked feature in this case is the (-) value of the feature [voice] because the [-voice] phoneme /x/ occurred less frequently. At this stage it can be said with confidence that the marked feature will merge with the unmarked in the speech of Canadian-born speakers of Ukrainian. Compare, for example, the two hierarchies.





The SLU hierarchy begins to resemble the CE hierarchy with reference to the [+compact, +grave, +continuant] consonantal phonemes.

The phonological rules which characterize the variant include:

1. Depalatalization

The [+diffuse, -grave] consonantal segments tend to become [-sharp] in the environment before {i, j}.

The [+cons., +voc., +continuant] phoneme tends to become [-sharp] in the environment before {i, j}.

2. Overpalatalization

[+cons., +voc., +continuant] and [+cons., -voc., +diffuse, -grave, +nasal] phonemes tend to become [+sharp] in the environment before all vowels except /i/.

3. Diphthongs

SLU [-cons., +voc., -flat, -grave] and [-cons., +voc., +flat] phonemes tend to become [+tense].

4. Glide Retention

The glide tends to be retained after [+cons., -voc., +diffuse, -grave] and [+cons., +voc., +continuant] phonemes.

The allophonic membership rules which characterize the variant include:

1. Excessively palatalized [+cons., -voc., +diffuse, -grave, +strident] allophones in the environment before {i, j} and the same allophones of their [+sharp] counterparts occur in free variation.

2. $\begin{bmatrix} t \\ d \end{bmatrix} \rightarrow \begin{bmatrix} \check{c} \\ \check{z} \end{bmatrix} / - \begin{Bmatrix} i \\ j \end{Bmatrix}$. [č] and [ž] are allophones of /t/ and /d/, respectively, whcih are in complementary distribution. Also, [č°] and [ž°] are allophones of /t'/ and /d'/, respectively.

3. SLU /p/, /t/, /k/, /c/ tend to become [+tense] (aspirated) in word initial position where /s/ cannot precede.

4. [ɦ] borrowed from CE tends to become an allophone of SLU /x/ intervocalically and in a consonant cluster. Because the status of the SLU /x/ is unstable in the speech of all the generations, [ɦ] can be taken as an allophone of SLU /h/. CE [h] tends to occur in free variation with SLU [h] initially and medially.

5. j → [i̯] / r —. [i̯] is in complementary distribution with j.

6. CE [ɑl] and [ɔ] borrowed from CE, tend to become allophones of SLU /a/ which occur in free variation.

7. CE [I] and [i:] borrowed from CE tend to become allophones of SLU /y/ or /i/.

8. CE [ɬ] borrowed from CE, tends to become an allophone of SLU /l/ in syllable final position and CE [l̥] before a $\begin{bmatrix} \text{-compact} \\ \text{-flat} \end{bmatrix}$ vowel phoneme.

9. SLU /r/ tends to become CE [R] or [ɹ] in prevocalic position. In postvocalic position SLU /r/ tends to become the nonsyllabic constricted offglide with the preceding vowel.

The Canadian variant of the Ukrainian language is not homogeneous. It consists of several unstable tendencies. The precise status can only be determined over a period of time.

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