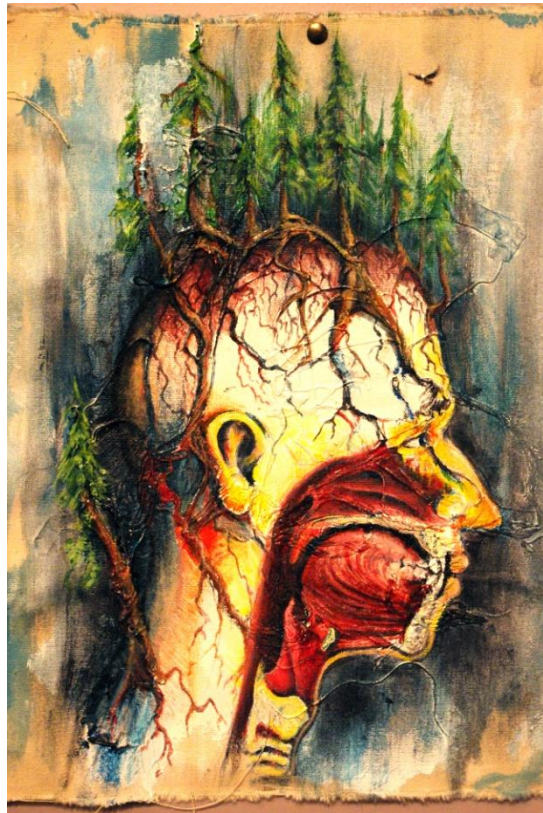


WPLC

Working Papers of the Linguistics Circle
of the University of Victoria



The Proceedings of the 27th Northwest Linguistics Conference

February 19-20 2011

Vol. 21

Issue 1 (November 2011)

**Working Papers of the Linguistics Circle
of the University of Victoria**

– Vol. 21 –

**Proceedings of the 27th Northwest Linguistics
Conference**

Published by the graduate students
of the University of Victoria Linguistics Department

Department of Linguistics
University of Victoria
P.O. Box 3045
Victoria, B.C., Canada
V8W 3P4

ISSN 1200-3344 (print)
ISSN 1920-440X (digital)

<http://web.uvic.ca/~wplc> | wplc@uvic.ca
© 2011 All rights retained by contributing authors.

Table of Contents

Acknowledgements	v
Preface	v
Editorial committee	vi
CONTRIBUTIONS IN PHONOLOGY AND PHONETICS	
Leane Secen & Tae-Jin Yoon	1
Degrees of phonetic enhancement by speech clinicians towards speech-/ language- impaired children	
Aliana Parker	9
It's that schwa again! Towards a typology of Salish schwa	
Khaled Karim	22
An Optimality Theoretic (OT) account of word-final vowel epenthesis and deletion processes in the incorporation of loanwords into the Dhaka dialect of Bangla	
Christen Harris	34
The structural category of past tense <i>woon</i> in Wolof	
Akitsugu Nogita	43
Epenthesis, intrusion, or deletion? Vowel alternation in consonant clusters by Japanese ESL learners	
CONTRIBUTIONS IN SYNTAX AND MORPHOLOGY	
Reem Alsadoon	52
Non-derivational approach to ditransitive constructions in MSA	
Hailey Ceong	61
The “Gradient Structure” of Korean “Words”	
Emrah Görgülü	70
Plural marking in Turkish: Additive or associative?	

Ruth Brillman	81
Allomorphy in Masarak's second person	
Elizabeth Magnotta	92
Past simple and present perfect: distribution in the Standard Italian of Greater Rome	
CONTRIBUTIONS IN COGNITION AND SEMANTICS	
Heidi Kent	102
Emotions and lexical memory	
Christina Galeano	111
Exploring syntactic categories in a construction grammar framework	
Hui Yin	118
The cognitive semantics of Chinese motion / directional verbs	
Elizabeth Magnotta & Alexandra Strohl	126
A linguistic analysis of humor: A look at <i>Seinfeld</i>	
CONTRIBUTIONS IN APPLIED LINGUISTICS	
Deborah Moniuk	136
The effect of affect? Task variability in L2 French	
Irina Goundareva	145
Effect of translation practice on vocabulary acquisition in L2 Spanish	
Moustapha Fall	155
From home to school: Bridging the literacy gap in L1 Wolof children learners of L2 French in Senegal	
Carmen Miranda-Barrios	164
Student attitudes toward their instructor accents in L2 Spanish and French Courses	

CONTRIBUTIONS IN SOCIOLINGUISTICS

- Jennifer Hinnell** 172
Language use in Nunavut: A view from the World Englishes
paradigm

- Khrystyna Hudyma** 181
Ukrainian language in Canada: From prosperity to extinction?

- Corinne Seals** 190
Reinventing the linguistic landscape of a national protest

POSTERS

- Stacey Menzies** 203
Kwak'wala modality

- Cory Stade** 204
The First Word Was Not a Noun

Acknowledgments

First we would like to acknowledge the contributions of the contributing authors for their research efforts that fill the pages of this issue. The 21th volume of WPLC would not have been possible without the efforts of this year's NWLC organizers and volunteers. This includes the faculty and staff who contributed to the success of the conference and this volume of the journal. The current digital form of the WPLC has been made possible by support from Inba Kehoe and UVic Libraries Office of Scholarly Communications. We would also like to thank the UVic Work Study program for providing funding to hire a student to create the digital archive the past 20 volumes of WPLC.

Preface to our 21th volume

On February 18 and 19th 2011 the graduate students of the Department of Linguistics hosted the 27th Northwest Linguistics Conference. The conference is an annual graduate student conference organized by four universities of the Pacific Northwest. This year was very exciting with contributions from graduate and undergraduate students from across the continent.

We are pleased to have been able to welcome all the participants to UVic for the conference and offer this selection of papers from presentations made at the conference. We wish you the best in your endeavors and hope to be able to welcome some of you back in four years' time for our next NWLC.

Editorial Committee,
WPLC 21

Editorial committee

Matthew Richards
Supervisory Editor

Thomas Magnuson
NWLC Liaising Editor

Dr. Alex D’Arcy
Faculty Supervisor

Taylor-Marie Young
Content Editor

Jennifer Lancaster
Content Editor

Susan Saunders
Content & Style Editor

Cover Artwork Scott Moisik

Copy Readers Catherine Dworak
Xiaoqian Guo
Sibo Chen

Degrees of phonetic enhancement by speech clinicians towards speech- /language- impaired children

Leanne Secen & Tae-Jin Yoon

McMaster University

secenl@mcmaster.ca; tjyoon@mcmaster.ca

Acoustic phonetic studies on the speech of speech clinicians were conducted, when speech clinicians communicated with speech and/or language impaired children through regular, one-to-one training sessions. The participants in this study included three speech clinicians and twelve children with a speech and/or language disorder. Four children of different severities of the speech and/or language disorder were assigned to each speech clinician. The speech clinician read a short script to the child, and in isolation (serving as a baseline). Each scenario contained one target sentence to be studied in terms of mean pitch, maximum pitch and minimum pitch. Results show that while mean and maximum pitches increasingly differ from baseline, to high-level comprehension and to low-level comprehension children, the minimum pitch value does not differ across the levels of comprehension. This study illustrates the way linguistic phonetic enhancement is achieved by speech clinicians for facilitating communicative comprehension by children with speech and/or language impairment.

1 Introduction

The diagnosis of Autism Spectrum Disorder among adolescents and children poses a range of difficulties including physical disorders (e.g. motor skills) and communication skills including social interaction, and exhibiting and processing emotion (Adrien *et al.* 1991). The social aspect of Autism so commonly defines this disorder and thus is often referred to as a “social learning disorder” (Landry & Bryson 2004, Smith & Camarata 1999). Specifically with regards to communication skills, speech and/or language impaired children have difficulty with the acquirement and development of such social interaction. These delays in communication can affect children’s ability to interact effectively and negatively influence other areas of development. Therefore, research on an effective means of communication between caregiver and a child with a speech and/or language disorder will lead to great benefit on behalf of children and their caregivers.

Recent studies have confirmed that speech clinicians interacting with speech and/or language impaired children, specifically Autism Spectrum

Disorder, use similar cues to that of infant-directed speech (Ochs *et al.* 2005, Baranek 1999). Most studies regarding infant-directed speech deal with children in the first few years of life. Children with a speech and/or language disorder on the Autism Spectrum result in difficulties in social, verbal and communicative behaviour (Parisse 1999). Thus it makes logical sense that characteristics of infant-directed speech would be similar to those directed towards children with Autism Spectrum Disorder.

Speech is simplified and exaggerated when directed toward typically developing children in terms of linguistic structure (Trainor *et al.* 1997). It is observed that not only parents but also children as young as four-years-old use infant-directed speech towards their two-year-old siblings (Shatz & Gelman 1973). A slower speech rate, wide pitch range and enhanced voicing distinctions are characteristics of infant-directed speech (Trainor & Desjardins 2002, Trainor *et al.* 1997). The simplified and enhanced input is thought to serve a number of purposes: First, the unique linguistic characteristics serves to maintain the attention through arousal of the child (Cooper *et al.* 1997). Second, the infant becomes familiarized with the emotional cues of speech that will permit in the development of social ties and bonds, and other relationships (Bergeson & Trehub 2002). Finally, it helps to aid the language acquisition process by emphasizing certain aspects of linguistic structure that should be of focus (Cooper *et al.* 1997, Werker *et al.* 1994).

The characteristics of infant-directed speech, however, are not static but rather in constant changes over time (Fernald 1992), presumably adjusted to the child's developmental and communicative needs. For example, at the earlier stage of child's development, high-pitched sounds are important to draw the attention of child (Fernald 1994, Trainor & Zacharias 1998). However, as the child undergoes various developmental stages, lower levels of prosody suffice to serve the same function.

Given that there are many different levels of communicative skills in speech and/or language impaired children, we may hypothesize that similar patterns may emerge when the prosody of caregivers is examined. In this paper, we will examine the levels of pitch of speech clinicians who communicate with these children through regular, one-to-one speech training sessions. Even though recent studies indicate the similarity between infant-directed speech and that of speech clinicians (Ochs *et al.* 2005, Baranek 1999), whether impaired levels of comprehension by speech and/or language impaired children affects the degree of prosodic enhancement in the speech of the caregiver such as speech clinicians warrants investigation.

We would expect that there will be differences in the speech characteristics of the speech clinicians between when they interact with children with a low level of comprehension and when they communicate with children with a high level of comprehension. Specifically, if the main goal of speech communication

is to help children with language acquisition as well as to maintain attention of the child, it would be predicted that a lower level of comprehension would induce a more exaggerated form of speech by the speech clinician.

2 Methods

2.1 Participants

Two groups of participants, speech clinicians and children diagnosed with a speech and/or language disorder, were recruited for this study. Three speech clinicians (two Speech-Language Pathologists and one Communicative Disorder Assistant) were recruited for the experiment. All three were female, and affiliated with Building Blocks Speech Pathology in Hamilton, Ontario. The twelve children recruited for the experiment are clients of Building Blocks Speech Pathology. All children had some type of speech and/or language impairment that stemmed from a neurological disorder. The large majority of these children fell on the Autism Spectrum Disorder but there was a single case of Down Syndrome as well. The children ranged from age six to thirteen, including seven boys and five girls. The three speech clinicians collectively categorized the 12 children based on their level of comprehension, as either *low comprehension* or *high comprehension*.

The low comprehension group provided such cues as minimal to no eye contact, a minimal length of time able to remain seated and a significant number of instances of highly repetitive behaviours. It is important to note that although speech production was taken into consideration, it didn't function as a sole determining factor. The high comprehension group could remain engaged in activity for a lengthier amount of time, increased amount of eye contact, most often with an ease of speech production and better overall social skills.

2.2 Procedure

Each speech clinician was assigned to four children based on the speech clinicians' past experience with the child as well as the child's comfort level with the speech clinician. Each group of four children consisted of two low level comprehension children and two high level comprehension children.

Prior to the one-to-one speech training session, the speech clinicians were instructed to read a short script to the child containing twelve simple scenarios. The speech clinician wore a microphone headpiece while reading the script. A picture, corresponding with each scenario, was presented to the child. This was to keep the child engaged during the recording. An example scenario is: "*The little girl is getting dressed for school. She can wear a red dress or a green dress.*" where "*She can wear a red dress or a green dress*" is the target utterance. The

speech clinician, experimenter and child were present during the recording. Sometimes the parent/guardian sat in during the recording as well. Upon completion of the script, the microphone was turned off and the experimenter exited the recording room.

Approximately two to three weeks following the script recording between speech clinician and child, the speech clinician was instructed to read the script in isolation. The script read in isolation was to serve as a baseline and as a means of comparison. Questions inserted into the script to engage the child were omitted and only target utterances were recorded. The speech clinician was instructed to read the script as if speaking to a typically developing child.

3 Results

Each of the twelve scenarios within the script contained a target utterance for a total of twelve target utterances. Each of these target utterances was in terms of mean pitch, maximum pitch, minimum pitch and duration. Waveforms and Spectrograms with superimposed F0 contours are presented in Figure 1 for the three groups containing the target utterance “*There is a big ball and a little ball.*”

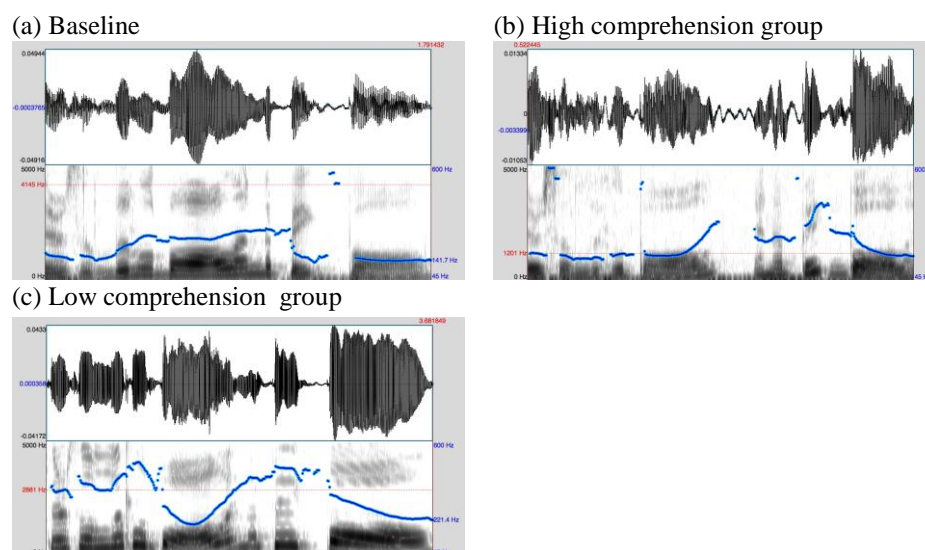


Figure 1. Waveforms and spectrograms with superimposed F0 contours uttered by a speech clinician in three different contexts

For a statistical analysis, we performed a 3 (low comprehension vs. high comprehension vs. baseline) x 3 (three speech clinicians) factorial ANOVA. The results of the main effect of degree of comprehension of utterance mean pitch, utterance maximum pitch and utterance minimum pitch are presented in Figure 2.

The factorial ANOVA indicates that there is significant effect for degree of comprehension in terms of utterance mean pitch $F(2,169) = 21.80$, $p < .05$. There is a large effect, $\eta^2 = .205$ (cf. Figure 2a). The low comprehension group induced a significantly higher mean pitch than the high comprehension group and the baseline measure. There was no significant difference between the high comprehension group and the baseline measure. The baseline group in this instance has a steady pitch contour that does not vary drastically, as shown in Figure 1a.

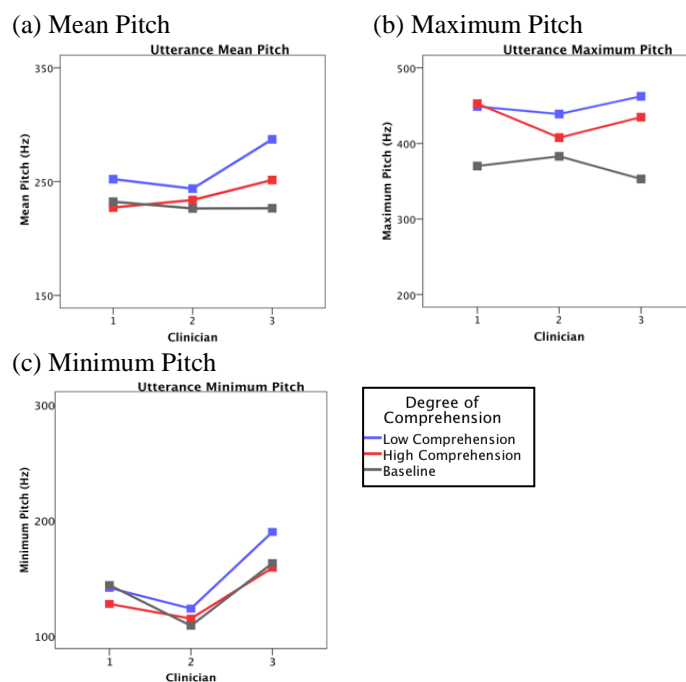


Figure 2. Results of the main effects of degree of comprehension of utterance mean pitch, utterance maximum pitch, and utterance minimum pitch

A significant effect for degree of comprehension in terms of utterance maximum pitch, as in Figure 2b, was determined $F(2, 169) = 18.05$, $p < .05$. Again, there is a large effect, $\eta^2 = .176$. Unlike utterance mean pitch, there was no significant difference between the low comprehension group and the high comprehension group. However, both of these groups induced a significantly higher pitch than the baseline measure.

In terms of minimum pitch (cf. Figure 2c), there was no significant effect for degree of comprehension $F(2, 169) = 20.0$, $n.s.$ The low comprehension group, high comprehension group and baseline measure induced a similar level

of minimum pitch. In all three cases, there was no individual variation among speech clinicians. This “invariant nature of minimum pitch” (Pierrehumbert 1980) may function to maximize salience via pitch differences. In other words, the constancy of the minimum pitch serves as a baseline whereas the fluctuations in the higher levels of pitch determine the greatness of the pitch range. Although the minimum pitch is similar between the high comprehension group, the low comprehension group and the baseline measure, the fluctuations in the mean pitch between these two levels of comprehension are significantly different. The pitch range induced by the low comprehension group is much greater in comparison to the pitch range induced by the high comprehension group. The minimum pitch seems to be unaffected by extraneous factors. Similar findings have been reported in Kim *et al.* (2006), in that the minimum pitch is more or less invariant in naturally occurring speech corpora.

4 Discussion and Conclusions

The results of the current study are in line with previous studies in that interaction with children diagnosed with a speech and/or language disorder induces different degrees of phonetic properties such as pitch and duration (Ochs *et al.* 2005; Baranek, 1999). The higher pitch could serve as functions of maintaining the child’s attention, assisting the child with the interpretation of emotional signals, and hence, aiding the language acquisition process.

In terms of infant-directed speech towards typically developing children, Stern *et al.* (1983) and Papusek (1993) make note that the exaggeration and emphasis of the characteristics of this modified speech depend on the age of the child. That is, a younger age induces a more exaggerated form of infant-directed speech. A parallel line can be drawn between the differences in a younger age and older age in comparison to a low comprehension level and a high comprehension level. A younger age and a lower comprehension level both would give much less of a response in comparison to their counterparts. This would induce greater exaggeration of the modified speech by the caregiver.

Overall, a lower level comprehension induces a higher pitch in terms of mean pitch, in comparison to a high level comprehension. This is most likely due to the lack of feedback from the children in the low comprehension group in an attempt to engage the child in activity. The maximum pitch does not differ between the low and high comprehension groups, although significantly higher than the baseline measure. Minimum pitch remains constant across the low comprehension, high comprehension and baseline measure.

The modulation of the pitch range dependent on the level of comprehension may be linked to the conveyance of emotion using the medium of prosodic features. It is known that the emotional prosody with a loving and warm tonal properties is important in attracting child’s attention (Trainor *et al.* 2000;

Trainor 1996). Children with Autism Spectrum Disorder have difficulty in recognizing emotions (Kuusikko *et al.* 2009). Speech clinicians tend to use higher levels of phonetics properties when interacting with the low comprehension group in comparison to the higher comprehension group in an attempt to additionally stress the emotional aspect of the speech. That is, an enhancement of pitch levels will reflect the emotional development.

Acknowledgments

A special thanks goes to the speech clinicians and clients at Building Blocks Speech Pathology for participating in this study. We would also like to thank the McMaster University Faculty of Humanities and the Vice-President (Research) and NSERC for their financial support.

References

- Adrien, J.L., Faure, M., Perrot, A., Hameury, L., Garreau, B., Barthelemy, C. & Sauvage, D. (1991). Autism and Family Home Movies: Preliminary Findings. *Journal of Autism and Developmental Disorders*, 21, 43-49.
- Baranek, G.T. (1999). Autism During Infancy: A Retrospective Video Analysis of Sensory-Motor and Social Behaviors at 9-12 Months of Age. *Journal of Autism and Developmental Disorders*, 29(3), 213-224.
- Bergeson, T.R. & Trehub, S.E. (2002). Absolute Pitch and Tempo in Mothers' Songs to Infants. *Psychological Science* (13)1, 72-75.
- Cooper, R.P., Abraham, J., Berman, S. & Staska, M. (1997). The Development of Infants' Preference for Motherese. *Infant Behavior and Development*, 20(4), 477-488.
- Fernald, A. (1992). Meaningful melodies in mothers' speech to infants. In H. Papousek, U. Jurgens, & M. Papousek (Eds.), *Nonverbal vocal communication: Comparative and developmental approaches* (pp. 262-282). Cambridge, England: Cambridge University Press.
- Kim, H., Yoon, T., Cole, H. & Hasegawa-Johnson, M. (2006). Acoustic Differentiation Between L- and L-L% in Switchboard and Radio News Corpus. *Proceedings of the 3rd ICSA International Conference on Speech Prosody*. Dresden, Germany.
- Kuusikko S., Haapsamo, H., Jansson-Verkasalo, E., Hurtig, T., Mattila, M., Ebeling, H., Jussila, K., Bölte, S., & Moilanen, I. (2009). Emotion Recognition in Children and Adolescents with Autism Spectrum Disorders. *J Autism Dev Disord*, 39, 938-945.

- Landry, R. & Bryson, S.E. (2004). Impaired disengagement of attention in young children with autism. *Journal of Child Psychology and Psychiatry*, 45(6), 1115-1122.
- Ochs, E., Solomon, O., & Sterponi, L. (2005). Limitations and Transformations of Habitus in Child-Directed Communication. *Discourse Studies*, 7, 547-83.
- Papousek, H. (1993). Transmission of the Communicative Competence: Genetic, Cultural, When, and How? *International Journal of Psychology*, 28(5), 709-717.
- Parisse, C. (1999). Cognition and language acquisition in normal and autistic children. *Journal of Neurolinguistics*, 12, 247-269.
- Pierrehumbert, J. (1980). The phonology and phonetics of English intonation, Ph.D. Dissertation, MIT.
- Smith, A.E. & Camarata S. Using Teacher-Implemented Instruction to Increase Language Intelligibility of Children with Autism. *Journal of Positive Behavior Interventions*, 1(141), 141-150.
- Shatz, M. & Gelman, R. (1973). The Development of Communication Skills: Modifications in the Speech of Young Children as a Function of Listener. *Monographs of the Society for Research in Child Development*, 38(5), 1-42.
- Stern, D., Spieker, S., Barnett, R. & MacKain, K. (1983). The Prosody of Maternal Speech: Infant Age and Context Related Changes. *Journal of Child Language*, 10(1), 1-15.
- Trainor, L. (1996). Infant Preferences for Infant-Directed Versus Noninfant-Directed Playsongs and Lullabies. *Infant Behaviour and Development*, 19, 83-92.
- Trainor L., Austin, C., & Desjardins, R. (2000). Is Infant-Directed Speech Prosody a Result of the Vocal Expression of Emotion? *Psychological Science*, 11(3), 188-195.
- Trainor, L., Clark E.D., Huntley, A., & Adams, B.A. (1997). The Acoustic Basis of Preferences for Infant-Directed Singing. *Infant Behavior and Development*, 20(3), 383-396.
- Trainor, L. & Zacharias C.A. (1998). Infants prefer high-pitched singing. *Infant Behaviour and Development*, 21(4), 799-806.
- Werker, J.F., Pegg, J.E. & McLeod P.J. (1994). A Cross-Language Investigation of Infant Preference for Infant-Directed Communication. *Infant Behaviour and Development*, 17, 323-333.

It's that schwa again! Towards a typology of Salish schwa

Aliana Parker
University of Victoria

The purpose of this paper is twofold: first, to provide a brief review and comparison of the patterns of inserted schwa across multiple Salish languages; and second, to make the initial move towards applying Gestural Phonology to Salish languages. The intent is to begin to develop a typology of schwa in Salish. The first part of this paper reviews the literature on patterns of inserted schwa in ten Salish languages and the second part attempts to unite the observed patterns by proposing an analysis within the framework of Gestural Phonology. In this analysis, both epenthetic and excrescent schwas are proposed to come from an underlying gap between consonant gestures which results from a consonantal coordination constraint that is active in all Salish languages.

1 Introduction

A key component of phonological research in Salish languages regards the occurrence of schwa, which appears throughout Salish and has thus far proved enigmatic. Though much debate remains, the general consensus in the literature is that Salish schwa is weightless, featureless and absent from underlying representations. Its occurrence is most often attributed to insertion, via epenthesis or excrescence, or to full vowel reduction. However, while many researchers have examined schwa as a necessary element of their work on prosodic phenomena such as stress systems and syllable structure, as yet few have focused exclusively on schwa across the Salish family. The purpose of this paper is to both follow and build upon Kinkade (1993 & 1998) by providing a more comprehensive review and comparison of schwa patterns across multiple Salish languages. To that end I review the current research on schwa from ten languages representing each branch of the Salish language family. The languages reviewed are Bella Coola, (an isolate); Sliammon, SENĆOŦEN, Cowichan, hənqəmínəm, Squamish and Lushootseed, from the Central Salish branch; Upper Chehalis, from the Tsamosan branch; and St'at'imcets and Nxaʔamxcín from the Interior Salish branch. The hope is that this research will provide for a better understanding of Salish schwa and will in turn allow for further advances in the research of Salish prosody. As Bianco notes, "the assignment of stress, structural

constraints on syllables, and even certain morphosyntactic enigmas are motivated according to the researcher's primary assumptions about schwa" (1994:9). Thus an enhanced understanding of this issue will be of great benefit to all future research.

The organization of this paper is as follows: Section 2 introduces the different types of schwas in Salish; Sections 3 and 4 summarize the various analyses of epenthetic and excrescent schwa in the languages reviewed; Section 5 offers a discussion of these summaries and raises some questions regarding the current status quo of schwa analyses in Salish; and Section 6 presents a preliminary analysis of schwa in the Gestural Phonology approach.

2 The Status of Schwa

Many Salishanists have accepted Kinkade's (1993, 1998) seminal proposals regarding schwa across Salish. He suggests that all schwas in Salish are weightless (non-moraic), featureless and absent from underlying representations. The implication is that all schwas appearing in surface representations are the result of some phonetic or phonological process of vowel change or vowel insertion. Kinkade (1993) proposes that schwa in Salish surfaces from one of four processes: epenthesis, excrescence, vowel reduction or segment derivation. (The final process appears to be limited in range, occurring only in Interior Salish.) A complete review of all four of these processes is beyond the scope of this paper, and thus the former two sources of schwa, epenthesis and excrescence, will comprise the discussion to follow.

The widely accepted distinction of epenthetic and excrescent schwa in Salish is based on the proposals of Levin (1987), who argues that excrescent vowels do not interact with the phonology, are the result of transitional or coarticulation effects and are not triggered by stray consonants. This contrasts with epenthetic vowels which are inserted by phonological rule and may be of fixed quality. Within Salish, an epenthetic schwa is most often inserted for the purposes of stress assignment or syllabification and thus interacts with the prosodic rules of the language (e.g. Bianco, 1994; Blake, 2000; Czaykowska-Higgins & Willett, 1997; Matthewson, 1994 a & b; Shaw, 2002). An excrescent schwa is usually defined as being optional in occurrence, of variable phonetic quality and invisible to the prosodic rules of the language, (it will not carry stress nor will it affect syllabification). It is therefore considered to be solely an articulatory or perceptual transitional element within certain consonant clusters (Bagemihl, 1991; Dyck, 2004; Leonard, 2007; and Rowicka, 2002, among others).

3 Epenthetic Schwa

This section summarizes the analyses of epenthetic schwa in the literature across ten languages. The goal of this section is to highlight the differing patterns of schwa that may be seen across Salish, as well as to establish the commonalities among all. As will be seen, the general pattern is that epenthetic schwa occurs to satisfy prosodic rules of syllabification or stress assignment.

Let us begin the review with Bella Coola, which Bagemihl (1991) has argued contains only excrescent schwa and no epenthetic schwas. He proposes that the maximal syllable structure is CRVC¹, where a resonant may optionally function as a syllable nucleus. While all Salish languages are known for their long strings of consonant clusters, Bella Coola demonstrates the strongest version of this characteristic and may contain words entirely made up of voiceless obstruents, for example: q'psttx̣ "Taste it!" (Bagemihl, 1991:627). This has posed an obstacle to researchers, who have alternately proposed that Bella Coola has no syllables at all, or that every single segment is syllabic, (see Bagemihl, 1991 for a review of this research). Bagemihl, on the other hand, proposes that all unsyllabified consonants are moraic and thereby prosodically licensed by grace of their moraic weight. Thus, no insertion is required to syllabify illicit clusters because no clusters are illicit. Moreover, Bagemihl also suggests that schwa insertion is not required for stress purposes. His analysis thereby avoids any need for epenthetic schwa. Bella Coola is the only language notable for this analysis; all other Salish languages evidence an epenthetic schwa of some kind.

Blake's (2000) dissertation on the distribution of schwa in Sliammon involves an in-depth review of the syllable structure and stress system in the language. In essence, Blake (2000) argues that schwa epenthesis occurs to satisfy the Optimality Theoretic constraint of ProperHeadedness, which requires that the syllable head of a foot have a nucleus. Epenthesis in Sliammon also occurs as the result of a constraint against stem initial consonant clusters, for example tʰkʷa → tʰəkʷa "edible root" (Blake, 2000:5). In this way schwa can occur stressed and unstressed in closed syllables, as in pəqʰpəqʰ "all white" and t'ənʔəm "barbeque (salmon)", or stressed in open syllables as in ʔəʔəpʁx̣w "become broken" (Blake, 2000:5). However, Blake also argues that there is a strong dispreference for schwa in open stressed syllables. This is the result of a constraint *ə]σ, which disallows stressed schwa in open syllables. It is ranked lower than the constraint which demands the left-alignment of prosodic-word heads. Thus, for example, /θətʰəm/ will be realized as [θətʰəm] "jig for cod" (Blake, 2000:6) in order to avoid a stressed schwa in an open syllable. Note, however, that the constraint

1 Within this paper, C=consonant, O=obstruent, R=resonant, V=full vowel only, ə=schwa. Differing notations from the works reviewed have been adapted to fit this format.

against root-initial consonant clusters is ranked higher than the constraint $*\acute{\sigma}$, allowing forms like $t^{\theta}\acute{\sigma}k^w a$ to appear.

Bianco's (1994) thesis provides a comprehensive discussion of schwa insertion in Cowichan, a dialect of Halkomelem. She argues that, at least within un-affixed roots, schwa epenthesis occurs to carry stress in the absence of a full vowel and in order to satisfy the sonority constraints on syllable structure. Regarding the latter, Bianco (1994) proposes that epenthetic schwa occurs to prevent onset consonant clusters, as in $cl\acute{e}l \rightarrow c\acute{e}l\acute{e}l$ "deep" (Bianco 1994:121), and to divide overly-sonorous codas into multiple syllables that are legal according to the sonority constraints in the language, as in $\acute{p}is\acute{c} \rightarrow \acute{p}is\acute{e}\acute{c}$ "pine cone" (Bianco 1994:121). The maximal syllable shape in Cowichan is CVCC, with strict limitations on allowable codas.

Regarding stress, Bianco (1994) proposes a leftward directionality. Stress is assigned to the leftmost full vowel, skipping schwa if a full vowel is present, or to the leftmost schwa if no full vowel is present. In certain instances, stress may appear to select one full vowel over another, regardless of schwa. Compare for example the forms $\theta\acute{e}\theta i\acute{?}\acute{e}n$ "blood" and $\acute{?}il\acute{e}\acute{?}\acute{e}q$ "in the back of a vehicle" (Bianco, 1994:50). Bianco's explanation is that vowels in Cowichan are ranked according to sonority, with /a/ being the most sonorous, /e, o/ less so, /i, u/ even less sonorous and /ə/ being the least sonorous vowel of all. Thus stress will be attracted to the most sonorous vowel in the root and will only appear on schwa when no other vowel is present.

Shaw (2002, 2004) and Shaw, Blake Campbell and Shepard (1999) in their review of $h\acute{a}n\acute{q}\acute{a}m\acute{i}n\acute{a}m$ (another dialect of Halkomelem) also posit that schwa appears to provide an obligatory syllable nucleus for stress and to break up illicit consonant clusters, as in $ts \rightarrow t\acute{a}s$ (perfective), $ts-\acute{a}t$ (t-transitive) "approach" (Shaw et al. 1999:15). Shaw (2002) argues that schwa epenthesis serves to fulfil ProperHeadedness requirements in that it provides a nucleus for stress. Moreover, Shaw et al. (1999) propose that stress is sensitive to the weight distinction between full vowel and epenthetic schwa. In this case, the Weight-To-Stress Principle is ranked higher than the alignment constraint on trochaic feet, ALIGN-FOOT-LEFT. Thus, for example, $sm\acute{a}t\acute{e}l\acute{i}$, "beaver-tooth dice game" shows a foot template $\acute{a}(\acute{a}\acute{V})$ despite a usual pattern of left-alignment (Shaw et al. 1999:13). In addition, Shaw et al. propose a constraint $*\acute{a}\acute{?}\acute{?}\acute{\sigma}$ which disallows a /ə?/ sequence syllable-finally, for example $n\acute{a}\acute{c}\acute{a}\acute{?} \rightarrow n\acute{a}\acute{c}\acute{a}$ (1999:11).

Within SENĆOŦEN, Leonard (2007) demonstrates that schwa may be epenthesized to prevent illicit consonant clusters. She argues that the only clusters which appear word-initially, (OO clusters) are not tautosyllabic and therefore are allowed to occur. Compare for example $tq\acute{e}p$ "saltwater fish trap" with $q\acute{e}l\acute{e}\acute{x}$ "salmon eggs" (Leonard, 2007:14-16). Of the OO clusters that do surface with epenthetic schwa, this schwa serves to break up a cluster that matches in both place and laryngeal features, for example $q\acute{a}q\acute{a}\acute{x}$ "shadow"

(Leonard, 2007:15). In contrast, resonants are not allowed to cluster root initially. Schwa epenthesis will always occur in RR, RO and OR root-initial clusters. Schwa epenthesis also occurs in codas due to Sonority Sequencing constraints. Thus, apart from a few exceptions, schwa will appear in a coda cluster that rises in sonority, as in *tekʷəl* "cross over the water" (Leonard, 2007:18).

Similar to other Salish languages, stress in SENĆOTEN is sensitive to a moraic weight distinction between full vowels and schwa (Leonard 2007). Following the analysis proposed by Dyck (2004), Leonard adopts a modified version of the Weight-To-Stress principle in that stress will be attracted to any syllable with weight over a weightless one. However, a schwa-resonant sequence may pattern as a full-vowel nucleus. The suggestion is that the schwa+syllabic resonant functions as a syllable nucleus, with the resonant providing moraic weight to equal that of a full vowel. A similar pattern is found in Squamish (Dyck, 2004) and Upper Chehalis (Kinkade, 1998).

Epenthetic schwa in Squamish also occurs to prevent consonant clusters and to satisfy requirements for stress (Dyck, 2004). While Dyck does not provide specific examples of schwa insertion in consonant clusters *per se*, it can be concluded from her analysis that Squamish has a preference for simple onsets and codas and therefore schwa insertion will occur to break up illicit clusters. Notably, only OO clusters are allowed as onsets and RO and OO clusters are allowed as codas within Squamish. Dyck (2004) notes that when RR and OR coda clusters occur, the second R is either syllabic or the cluster is realized as RəR or OəR, (which may indicate excrescence in this case).

Regarding stress assignment, Dyck (2004) argues that stress is penultimate and sensitive to weight distinctions. As mentioned earlier, Dyck proposes a modified version of the Weight-to-Stress principle, saying that if the syllable has weight, it will be stressed. Thus in the case of multiple weighted syllables, stress will be penultimate, but in the case of a weighted and weightless syllable pair, the weighted syllable will receive stress regardless of location. Thus schwa will only be stressed when no other full vowel is present. The one exception to this is in a əR sequence. Dyck (2004) argues that a schwa-resonant sequence has equal weight to a full vowel, and therefore will accept penultimate stress over a full vowel. Examples are: (ə́V) as in *syəxás* "large rock" (86); (ə́ə) as in *wəxəs* "frog" (97); and (ə́RV) as in *háwan* "dog" (90). Note that this last example only occurs when the resonant is plain. In the case of a glottalized resonant, the stress will move to the full vowel, as in *həwʔít* "rat", (Dyck, 2004:86). This is due to glottal restructuring, in which an underlying /Rʔ/ becomes [ʔR] in the surface form. Thus, the preceding schwa can no longer be licensed by the moraic weight of the resonant.

Urbanczyk's (2001) analysis of schwa in Lushootseed again shows similarity to other Salish languages in that it occurs to prevent complex obstruent clusters and to carry stress when no full vowel is present. Lushootseed follows

the common Salish pattern wherein stress is trochaic and is sensitive to vowel quality, and initial obstruent aspiration within OO clusters serves to break up the cluster. Compare for example $təs=əd \rightarrow t́əsəd$ "*Punch someone!*" and $təs=us-ed \rightarrow t́sósəd$ "*punch someone in the face*" (Urbanczyk, 2001:79). Thus Urbanczyk (2001) proposes that the maximal syllable shape in Lushootseed is CVC or CəC. However, this brief summary does not do appropriate justice to Urbanczyk's analysis, which is significant for understanding schwa in all Salish languages. A more complete discussion will follow in Section 5.

Within Upper Chehalis, Kinkade (1998) argues that schwa occurs solely to bear stress when no full vowel is present. The stress system of Upper Chehalis shows a preference for full vowels over schwa. Moreover, all unstressed vowels in closed syllables are deleted, and there is a strong dispreference for unstressed schwa in open syllables. For example, $c'əxw-mł$ "*wash for others*" shows a stressed schwa in a closed syllable. This schwa is deleted when stress falls on a different syllable, as in $c'xw-š́n-m$ "*wash one's feet*" (Rowicka, 2001:109). The language also shows a pattern of changing unstressed schwa in open syllables to the least marked full vowel depending on the location. In this case schwa may surface as stressed in a root, but may change to another full vowel from certain morphological interactions. Thus it is apparent that epenthetic schwa only surfaces as stressed, as in $támš$ "*earth, ground*" (Rowicka, 2001:109). Consequently, any unstressed schwa which occurs in Upper Chehalis can be concluded to be the result of excrescence, as in $q'óləwe?$ "*maple*" (Rowicka, 2001:109).

Schwa epenthesis in St'át'imcets, (Lillooet), also occurs for one of two reasons; either to prevent an illicit consonant cluster based on sonority sequencing rules, or to provide the obligatory syllable nucleus to carry stress. Regarding syllable structure, St'át'imcets follows sonority sequencing rules within tautomorphemic onset clusters and all coda clusters. For example, schwa epenthesis will occur to break up an RR-coda cluster as in $ká.nəm$ "*why*" but is not required in the heterosyllabic cluster in $ł-kán.m-aš$ "*why (subjunctive)*" (Matthewson, 1994a: 6). Therefore, tautomorphemic onset sequences of RO and RR are disallowed and instigate schwa epenthesis, and any CRC coda cluster will also cause epenthesis. However, Matthewson (1994a) notes that a sequence of ROOR would be allowed as it may be syllabified as RO.OR which follows sonority sequencing rules.

In addition, schwa epenthesis also occurs to provide a syllable nucleus to carry stress in morphemes lacking a full vowel, such as $kəxkəx$ "*older sister*" (Matthewson, 1994a:3). However, "...schwa is the least preferred foot head, and may not head a foot which also contains a full vowel" (Matthewson, 1994b:7). St'át'imcets shows a similar pattern to Upper Chehalis in that there is a dispreference for unstressed schwa in open syllables. However, schwa may occur freely as stressed or unstressed in closed syllables.

Finally, in Nxaʔamxcín (or Moses-Columbian Salish) schwa epenthesis is conditioned by constraints on syllable structure due to sonority sequencing principles and by stress requirements. It may occur to fulfil the required nucleus for stress in CC or CCC roots that are not followed by a suffix with a full vowel, as in the form cákək "get hit" (Czaykowska-Higgins & Willett, 1997:395). Czaykowska-Higgins and Willett (1997) argue for a maximally simple syllable structure in Nxaʔamxcín: CVC. Onset clusters are prohibited and therefore realized with inserted schwa, except for OO clusters. As seen before, initial obstruent aspiration is nucleic and therefore onset OO clusters are not tautosyllabic. For example, ptíxʷ → pʰtíxʷ "spit" (Czaykowska-Higgins & Willett, 1997:392). All other onset clusters are disallowed, regardless of sonority sequencing principles. The patterning of epenthetic and excrescent schwa in coda clusters provides additional evidence for maximally simple codas. It appears that schwa epenthesis occurs in coda clusters of RR and OR sequences, and schwa excrescence occurs in RO coda clusters. In OO coda clusters, the aspiration of the initial stop is again analysed as nucleic. Urbanczyk (2001) first proposed the analysis of obstruent aspiration as syllabic. Such an analysis has some interesting implications, a few of which will be discussed in Section 5.

4 Excrescent Schwa

A review of excrescent schwa also reveals similar patterns across Salish. Of the works reviewed, almost all suggest that excrescent schwa occurs in clusters involving resonants. Indeed, Kinkade proposes that this is a pan-Salish rule and may be a trace from Proto-Salish (1998:198). In Bella Coola, Upper Chehalis, Sliammon and SENĆOŦEN, excrescent schwa occurs in CR clusters, or more specifically OR clusters (Bagemihl, 1991; Rowicka, 2002; Kinkade, 1998; and Leonard, 2007). Returning to Bagemihl (1991), excrescent schwa is the only inserted schwa that surfaces in Bella Coola. It follows a similar pattern to that found in all the other languages in that it is an optional transition within an OR cluster, regardless of syllabicity. It is invisible to reduplication rules, is not triggered by "stray" consonants, (of which there are none in Bella Coola according to Bagemihl's analysis), and thus simply mediates an articulatory transition. Thus schwas in examples such as mənłkʷa "bear berry" and təlkw "swallow" (Bagemihl, 1991:599) may be understood as purely excrescent.

This analysis can be taken as representative of all other Salish languages. In Sliammon, excrescent schwa occurs in OR and RO clusters (Blake, 2000); in SENĆOŦEN it occurs in OR clusters (Leonard, 2007); in Upper Chehalis it occurs in any CR cluster (Kinkade, 1993); finally, in Nxaʔamxcín excrescent schwa occurs as a transition between two heterosyllabic resonants as well as in RO clusters (Czaykowska-Higgins & Willett, 1997). The argument here is that the transitional vowel is actually the voiced form of the resonant release, and

similar to the 'nucleic' aspiration of the first obstruent in an OO cluster, can vary in quality from almost imperceptibly short to something characteristic of a full schwa.

5 Discussion

From these reviews, it appears that schwa epenthesis in Salish occurs as a result of prosodic constraints: a constraint against certain consonant clusters and a constraint which requires that stressed syllables have vocalic nuclei. In many ways it would be easy to confuse these two constraints as they both involve epenthesizing schwa to function as a syllable nucleus. And, in fact, as both elements are closely related (syllables forming the prosodic feet on which stress falls), it may be that both are interacting in every language to determine schwa epenthesis.

Thus far the general consensus is that the distinction between the different types of inserted schwas is one of epenthesis versus excrescence. However, some issues begin to indicate that this distinction might not be so simple. Levin (1987) argues that epenthetic vowels are inserted early enough to interact with phonological rules such as stress assignment, whereas excrescent vowels result from late insertion rules and therefore are ignored by prosodic processes. However, Rowicka (2001) argues that such a distinction would predict that the epenthetic vowel would be the result of redundancy rules and therefore mimic the phonetic qualities of an underlying vowel in the language's inventory. However, if you accept that schwa is not present in the underlying representation, then its surface appearance - which does not mimic a phonemic vowel - is unexplained. Moreover, it is widely attested that schwa is variable in quality and is highly prone to coarticulation effects (see for example Blake, 2000). This contradicts the fixed quality that one might expect from a relatively stable epenthetic element. For these and other reasons, Rowicka (2001) proposes the distinction being one of prosodic visibility versus invisibility. The epenthetic vowel would be considered prosodically visible in that it does interact with certain phonological rules such as stress assignment, whereas the excrescent schwa is prosodically invisible as it is completely ignored by prosodic rules.

In contrast, Kinkade (1998) suggests that excrescent schwa might indeed be prosodically visible. While Levin states that "there are no phonological rules which refer to excrescent vowels" (1987:192), Kinkade notes that excrescent vowels in Upper Chehalis require the application of at least two phonological rules: one is the shift of stress from an underlyingly stressed resonant to the nucleic schwa, as in čnq → čánq-l *"make a mistake, get lost"* (Kinkade, 1998:202); and the other is a change of quality in an open syllable, as in s-čánq-w-n → s-tx^w-čánáq-stw-n *"make a mistake, get lost"* (Kinkade, 1998:210), which he argues is different from the changes outlined for epenthetic schwas (please

refer to Kinkade, 1998 for further explanation). Thus excrescent schwa in Upper Chehalis is apparently visible to prosodic rules. The significance of the proposals by Rowicka (2001) and Kinkade (1998) is that the commonly understood distinctions of epenthesis and excrescence are inadequate to fully explain inserted schwa in Salish.

Urbanczyk's (2001) analysis of schwa adds further interest to the discussion of epenthetic schwa. She argues that no CC clusters are tautosyllabic. Rather, the initial C of any CC cluster will always be produced with some form of release which functions as a syllable nucleus. Thus, every single consonant in Lushootseed is licensed by syllabification, unlike Bagemihl's (1991) proposal of Bella Coola that consonants are prosodically licensed by their moraic weight. Moreover, Urbanczyk argues that obstruent release, or aspiration, is in complementary distribution with schwa: aspiration will occur before a voiceless consonant but not before a vowel, and schwa will occur before a voiced consonant and when needed for stress. Thus aspiration will become schwa when the following segment is voiced or when that syllable is required to carry stress. Otherwise it will surface as aspiration, or will be subsumed by the following vowel. These competing analyses of epenthesis and excrescence raise many questions about our current understanding of this distinction. In the following section, I offer a preliminary explanation which might account for the rather blurred boundary between epenthetic and excrescent schwa.

6 A Gestural Analysis

In considering all of these facts, it may be possible to examine inserted schwas in Salish by means of Gestural Phonology, as first described by Browman and Goldstein (1986). To date, no one has applied the gestural approach to Salish phonology, yet it may be that this framework can assist and develop our understanding of Salish schwa. What follows is a preliminary proposal that represents an initial step towards using Gestural Phonology for the analysis of Salish. In this analysis, I follow the lead of Kinkade (1993, 1998), among others, and adopt three crucial assumptions regarding the nature of schwa: that all schwas in Salish are weightless, featureless and absent from underlying representations. While many of the works reviewed earlier do adopt these assumptions, they are still entirely debatable.

As a brief introduction, gestural phonology, a type of articulatory phonology, describes segments in terms of their spatio-temporal relations. Segments are seen as bundles of articulatory gestures and are described by their interaction with one another along a temporal scale. Each segment is schematically represented as a single gesture which is defined by its temporal landmarks: the Onset of the gesture; the Target, when the ideal constriction is reached; the C-Centre, which marks the centre of the gestural plateau (the phase

during which the target constriction is held); the Offset when the articulators begin to move away from the target position; and the Release-Offset, signaling the end of the gesture.

Phonologists are making increasing use of Gestural phonology to analyze inserted elements. Nancy Hall's (2006) key work on the distinction between epenthetic and excrescent vowels argues that epenthetic elements are the result of an inserted vowel gesture whereas excrescent elements are the result of a 'gestural mistiming', or a gap between two 'misaligned' consonant gestures. Gafos (2002) on the other hand, examines inserted schwas in Moroccan Colloquial Arabic and proposes that they result from this very "mistiming". He develops a set of OT alignment constraints which can be used to predict the appearance of epenthetic schwa.

In this analysis, I adopt the proposals of Gafos (2002) and suggest that Salish languages have a coordination constraint on consonant clusters which aligns the centre of the first gesture with the onset of the second, as in figure 1. This is expressed in the OT constraint $\text{ALIGN}(C^1, C\text{-CENTER}, C^2, \text{ONSET})$:

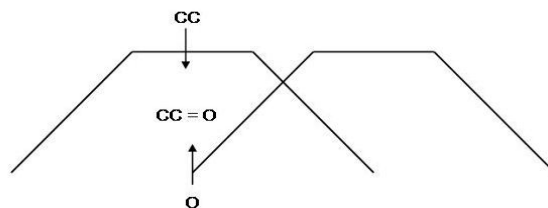


Figure 1. CC Coordination $\text{ALIGN}(C^1, C\text{-CENTER}, C^2, \text{ONSET})$

As figure 1 shows, the C-Centre of the first consonant gesture is aligned with the Onset of the second gesture, leaving a small gap between the Offset and Target points. This gap may be voiced, depending on the coordination of the respective vowel gestures, in which case it would have a vowel-like quality. According to Gafos (2002), this gap is the source of some inserted schwas in Moroccan Colloquial Arabic, and thus a similar analysis will be applied to Salish. However, while Gafos requires multiple alignment constraints to explain the different patterns, I opt in favour of simplicity, based on the principle of Ockham's Razor, and propose that this gap is the source of both epenthetic and excrescent schwas in Salish. When a vocoid is required by certain phonological rules, such as stress assignment or syllable formation, the gap in the consonant gestures will surface as a voiced schwa and thereby appear to be epenthetic. However, when no vocoid is required by the phonology, this gap may optionally surface as voiced or voiceless depending on the underlying voicing gestures and thus appear as excrescent. Moreover, in the latter case, the schwa-like percept would disappear

in fast speech as the gestures would "stiffen" and close the gap between them. In this way, we can understand epenthetic and excrescent schwa, and obstruent aspiration, as resulting from the same source: not a gestural "mistiming", as Hall (2006) says, but rather a functional and intentional gap between consonant gestures. The distinction between them depends on phonological rule, much like Rowicka's (2001) distinction of prosodic (in)visibility.

This preliminary analysis has some weaknesses, yet it also offers certain advantages for the study of Salish schwa. There are some phenomena which it cannot explain, such as the optional appearance of schwa between two voiceless obstruents, as in the alternation observed in Lushootseed of $q^h si? \sim qə si?$ "uncle" (Urbanczyk, 2001: 76). While the consonantal gap may easily be the source of aspiration in this case, it is more difficult to explain why a voicing gesture would be randomly activated in the gap between two voiceless segments. However, while more fine-tuning is necessary, the initial proposal offers several advantages for understanding the observed qualities of inserted schwa. First, it may reconcile Rowicka's (2001) and Kinkade's (1998) varying analyses of excrescent schwa, as discussed earlier. It also fits well within the Proper Government approach, in which all consonants are headed by a syllable nucleus (this being the gestural gap), and therefore may align to a certain extent with Urbanczyk's (2001) proposals. Finally, it provides additional evidence for the theory that schwa, regardless of type, is weightless, featureless and absent from underlying representations.

7 Conclusion

It is clear that there are many factors involved in the appearance of schwa in Salish languages. The interaction between stress systems and syllable structure is a central issue and this paper suggests that gestural coordinations may be yet another defining factor. General patterns that are seen across Salish languages are that stress shows a preference for full vowels over schwa, indicating that schwa may be weightless and non-moraic. Moreover, it is possible that all inserted schwas in Salish, epenthetic and excrescent, result from the same underlying construct and may be understood as the result of a constraint on consonant gesture coordination. This review has provided a brief glance at the patterns of inserted schwa in some Salish languages. More research is needed to develop a complete understanding inserted schwa in Salish, but it is clear that the Gestural Phonology approach may offer new and valuable insights into the phenomenon of Salish schwa.

Acknowledgments

I am very grateful to the various experts in this field who provided invaluable feedback regarding this research: Patricia A. Shaw, Ewa Czaykowska-Higgins, Janet Leonard, and Suzanne Urbanczyk. All errors and omissions are my own.

References

- Bagemihl, B. (1991). Syllable structure in Bella Coola. *Linguistic Inquiry*, 22(4), 589-646.
- Bianco, V. M. (1994). The role of sonority in the prosody of Cowichan. (MA Thesis). University of Victoria, Victoria.
- Blake, S. J. (2000). On the distribution and representation of schwa in Sliammon (Salish) (Doctoral dissertation). University of British Columbia, Vancouver.
- Browman, C.P. & Goldstein L.M. (1986). Towards an articulatory phonology. *Phonology Yearbook* 3, 219-252.
- Czaykowska-Higgins, E. & Willett, M. (1997). Simple syllables in Nxaʔamxcín. *International Journal of American Linguistics*, 63(3), 385-411.
- Dyck, R. A. (2004). Prosodic and morphological factors in Squamish (Skwxwú7mesh) stress assignment (Doctoral dissertation). University of Victoria, Victoria.
- Gafos, A. (2002). A grammar of gestural coordination. *Natural Language & Linguistic Theory* 20, 269-337.
- Hall, N. (2006). Cross-linguistic patterns of vowel intrusion. *Phonology* 23, 387-429.
- Kinkade, D. M. (1993). The chimerical schwas of Salish. *Paper read at 92 Annual Meeting of the American Anthropological Association/ 32nd Conference on American Indian Languages, Washington, D.C., November 21, 1993*.
- Kinkade, D. M. (1998). How much does a schwa weigh? In E. Czaykowska-Higgins & M. D. Kinkade (Eds.), *Salish languages and linguistics: theoretical and descriptive perspectives* (197-216). New York: Mouton de Gruyter.
- Leonard, J. (2007). A preliminary account of stress in SENĆOŦEN (Saanich/North Straits Salish). *Northwest Journal of Linguistics* 1(4), 1-59.
- Levin, J. (1987). Between epenthetic and excrescent vowels (or what happens after redundancy rules). *WCCFL* 6, 187-201.
- Matthewson, L. (1994a). Syllable structure in St'át'imcets. In *Toronto Working Papers in Linguistics: Proceedings of the Canadian Linguistics Association* (Koskinen, P., ed.)

- Matthewson, L. (1994b). Optimality and syllable structure in St'át'imcets. UBC Generals paper.
- Rowicka, G. J. (2002). Lateral deletion and more or less excrescent schwa in Upper Chehalis. *Linguistics in the Netherlands*, 139-149.
- Rowicka, G. J. (2001). Epenthesis and prosodic (in)visibility in Mohawk and Upper Chehalis. *Proceedings of WSCLA 5*, 107-118.
- Shaw, P. A. (2004). Reduplicant order and identity: Never trust a Salish CVC either? In D. Gerdts & L. Matthewson (Eds.), *Studies in Salish linguistics in honor of M. Dale Kinkade*. University of Montana Occasional Papers in Linguistics (Vol. 17). Missoula, MT: University of Montana.
- Shaw, P. A. (2002). On the edge: obstruent clusters in Salish. *Proceedings of WSCLA 7. UBCWPL 10:119-136*.
- Shaw, P. A., Blake, S. J., Campbell, J. & Shepard, C. (1999) Stress in hənqəminəm (Musqueam) Salish. In *Proceedings of the Workshop on Structure and Constituency in the Languages of the Americas*, UBC Working Papers in Linguistics, vol. 2. Pp. 131-163.
- Urbanczyk, S. (2001). *Patterns of reduplication in Lushootseed*. London: Garland Pub.

An Optimality Theoretic (OT) account of word-final vowel epenthesis and deletion processes in the incorporation of loanwords into the Dhaka dialect of Bangla

Khaled Karim
University of Victoria
khaledk@uvic.ca

This paper investigates the phenomenon of word-final vowel epenthesis and consonant deletion processes in the incorporation of loanwords into the Dhaka dialect of Bangla and provides an Optimality Theoretic (OT) account of these two processes. With tableaux, I have demonstrated that a high-ranked markedness constraint *COMPLEX^{COD} (Kager, 1999), is active in Dhaka. Also, while MAX-C/V motivates the optimal outputs with a deleted consonant in ‘nasal+obstruent’ ‘liquid [l]+obstruent’ and ‘stop+stop’ clusters, the vowel epenthesis in ‘liquid+nasal’ clusters is allowed by two lower ranked faithfulness constraints CONTIG-IO and DEP-IO. Finally, I interpreted that the apparent /r/ deletion in ‘liquid [r]+obstruent’ clusters of OB in Dhaka dialect is a process of merger of /r/ with the preceding vowel (Cote, 2004) or it is an effect of auditory perception of English source language form (i.e., perceiving /r/ as a vowel) by borrowing language speakers of Dhaka dialect.

1 Introduction

This paper investigates the phenomenon of word-final vowel epenthesis and consonant deletion processes in the incorporation of loanwords into the Dhaka dialect of Bangla and provides an Optimality Theoretic (OT) account of these two processes. The vowel epenthesis process in Dhaka dialect takes place to break the consonant clusters word-initially, word-medially and word-finally. The deletion process in consonant cluster simplification is evident only in word-final positions. This paper accounts for the vowel epenthesis and consonant deletion processes evident in the word-final clusters in the Dhaka dialect. Examples presented in (1a & 1b) demonstrate the epenthesis and deletion patterns evident in word-final clusters.

(1)	<u>Source</u> (English borrowing)		<u>Loan adaptation</u>
	<u>Gloss</u>		
	a. hɔrn (CVCC)	→	hɔɾn (CV.CVC)
	‘horn’		
	b. paŋt (CVCC)	→	paŋ (CVC)
	‘pant’		

Previous research has investigated epenthesis in word initial clusters in non-standard Bangla (e.g., Gouskova, 2001) and also investigated the syllable structure of standard Bangla with a limited comparison with its dialectal variation (e.g., Kar, 2009), but no research has directly investigated the epenthesis and deletion processes in all three clusters of any of the dialectal variations of Bangla. Accordingly, this study aims to address one of these phenomena evident in Dhaka dialect with a detailed description and analysis, which will be a valuable contribution to research literature. The main source of the data is the researcher himself, but Bangla dictionary and previous research (e.g., Kar, 2009¹) were also used to obtain certain data. The analysis of the data is within the framework of Optimality Theory (OT) (McCarthy & Prince 1993; Prince & Smolensky, 1993) to reveal the motivations behind the split epenthesis patterns and the deletion processes.

The paper is organized as follows: Section 2 provides background information about Bangla. Next, section 3 presents the possible word-final clusters and an overview of the epenthesis and deletion facts observed in Dhaka dialect. An OT analysis of epenthesis and deletion, along with motivation for the constraints posited therein is included in section 4. Finally, Section 5 wraps up with the conclusion.

2 About Bangla and the Dhaka dialect

Bangla, known as Bengali in English, is an eastern Indo-Aryan language with approximately 211 million speakers in Bangladesh and the Indian state of West Bengal. Bengali emerged as a new Indo-Aryan language by 900-1000 AD from Magadhi Prakrit (600 BC - 600 AD), a descendent vernacular form of the ancient Sanskrit language, along with two other Indo-Aryan languages, Oriya and Assamese (Chatterji, 1926). The Bangla alphabet is a syllabic alphabet in which consonants all have an inherent vowel. Vowels can be written as independent letters, or by using a variety of diacritical marks which are written above, below,

¹ I am indebted to Somdev Kar, who shared his thesis and the Bengali corpus with me. He did an immense amount of work on the syllabification of standard Bangla that has made my research possible. My description and analysis of vowel epenthesis and deletion processes of Dhaka dialect are built on the data of Standard Bangla he used in his thesis.

before or after the consonant they belong to. Word order in Bangla is SOV (Kar, 2009), for example, *ami* (I) *bhat* (rice) *khai* (eat) instead of “I eat rice” in English.

Bangla lexicon is varied, as a range of words have been integrated into it from different languages. In terms of the origin of words, Bangla lexicon can be stratified in three major groups: a) *Tadbhaba* b) *Tatsama* and c) *Deshi o Bideshi* (Kar, 2009). *Tadbhaba* words are Native Bangla (henceforth, NB) words, rooted in Sanskrit and Prakrit. These words had been borrowed from Sanskrit, but had changed to fit the phonology of Bangla language. E.g., /*kāṭh*/ [*kaṭʰ*] ‘wood’, /*phul*/ [*pʰul*] ‘flower’ etc. (Kar, 2009). *Tatsama* words are directly borrowed from Sanskrit (henceforth SB: Sanskrit borrowing) and they retained their original Sanskrit form. E.g., /*grām*/ [*gram*] ‘village’, /*kabi*/ [*kobi*] ‘poet’ etc. (Kar, 2009). *Deshi o Bideshi* are words borrowed from Indian (*Deshi*) and foreign languages (*Bideshi*), which could not be traced back to Sanskrit. Henceforth, this will be abbreviated as OB (Other Borrowing). E.g., /*ānāras*/ [*anarɔʃ*] ‘*ananas*’ (<Portuguese), /*burjoyā*/ [*burjoa*] ‘*bourgeois*’ (<French), /*bādur*/ [*baduɾ*] ‘*bat*’ (<Austro- Asiatic), /*haratāl*/ [*hɔrotal*] ‘*strike*’ (<Gujarati: [*hɔṭtal*]) etc. (Kar, 2009).

Bangla has two literary styles: one is called *Sadhubhasa* (elegant language) and the other *Chaltibhasa* (current language). The differences between the two styles are not huge and involve mainly forms of pronouns and verb conjugations (Sahidullah, 1965). Spoken Bangla, including what is heard in news reports, speeches, announcements, is modeled on *Choltibhasa*. This form of spoken Bangla stands alongside other spoken dialects or regional Bangla. The majority of Bengalis are able to communicate in more than one dialect. According to Chatterji (1921), these dialects can be divided into four major groups- Western, North central, Northern, and Eastern (with South-eastern sub-group). The Eastern dialects serve as the primary colloquial language of the Dhaka district. In Dhaka and its surrounding dialect, a vowel is inserted between the consonant clusters and also a consonant is deleted word-finally in loanwords as consonant simplification processes (examples presented in 1 a & b), an investigation of which is the focus of this paper.

3 Word final Clusters

Word final consonant clusters are also very rare in NB words with just a few exceptions. Example of one such exception is: /*ganj*/ “part of a place name” as in /*nababganj*/ “name of a place” (Kar, 2009). Word final consonant clusters are mainly found in OB cases in Bangla. For instance, /*pant*/ [*panṭ*] ‘*pant*’ (<English), /*dost*/ [*doṣṭ*] ‘*friend*’ (<Persian) etc. The following are a set of word final consonant clusters available in OB stratum of standard Bangla lexicon:

- (2) a. Nasal+Obstruent clusters: ŋk, nd, nt, mp
 b. Liquid+Obstruent clusters: rk, rc, rɟ rb^h, rd, rt, lt
 c. Obstruent+Obstruent clusters: p^ht
 d. Liquid+Nasal clusters: rn, rm, lm
 (Kar, 2009).

These clusters are mostly English words that mostly contain obstruent as the second member of the cluster. Liquids and nasals are mostly the first member in the clusters with one exception of obstruent. Word-final consonant clusters with coronal obstruents are also found in OB stratum of standard Bangla, which are presented in (3).

- (3) Word-final consonant clusters with coronal obstruents: rs, rst, sk, ks (Kar, 2009).

Epenthesis is the most common repair strategy for OB in Dhaka dialect by a large margin. However, there is also evidence of deletion repairs in certain situations. In case of the adaptation of OB English words with word-final clusters in Dhaka dialect, interestingly, both vowel epenthesis and deletion of segments occur. Vowel epenthesis occurs only in 'liquid +nasal' clusters. But, deletion of consonant occurs in cases of 'nasal+obstruent', 'liquid+obstruent', and 'obstruent+obstruent' clusters. The examples of vowel epenthesis are presented in (4).

- (4) Vowel epenthesis in word-final 'liquid+nasal' clusters of OB in Dhaka dialect:

Cluster	OB Stratum		Dhaka dialect	Meaning
rn	hɔrn	→	hɔrɔn	'horn'
rm	p ^h ɔrm	→	p ^h ɔrɔm	'form'
lm	film	→	film	'film'

As we can see from data in (4), epenthesis occurs between a word-final liquid and nasal.

Examples of word final consonant deletions are presented in (5).

- (5) a. Deletion in word-final 'nasal+obstruent' clusters of OB in Dhaka dialect:

Cluster	OB Stratum		Dhaka dialect	Meaning
ŋk	baŋk	→	baŋ	'bank'
nd	paund	→	paun	'pound'
nt	paŋt	→	pan	'pant'
mp	lamp	→	lam	'lamp'

- b. Deletion in word-final ‘liquid+obstruent’ clusters of OB in Dhaka dialect

Cluster	OB Stratum		Dhaka dialect	Meaning
rk	park	→	pak	‘park’
rc	ʈɔrc	→	ʈɔc	‘torch’
rb ^h	narb ^h	→	nab ^h	‘nerve’
rd	bord	→	boɖ	‘bord’
rʈ	sarʈ	→	saʈ	‘shirt’
lʈ	belʈ	→	bel	‘belt’

- c. Deletion in word-final ‘obstruent+obstruent’ clusters of OB in Dhaka dialect

Cluster	OB Stratum		Dhaka dialect	Meaning
p ^h ʈ	lip ^h ʈ	→	lip ^h	‘lift’

(Data source for (4) and (5): OB words- Kar, 2009; Dhaka dialect- Author’s own speech)

As presented in (5), deletion repairs occur in different patterns. With ‘nasal-obstruent’ clusters, as presented in (5a), the word-final obstruents get deleted but in case of ‘liquid-obstruent’ clusters, the liquids get deleted, as presented in (5b). In (5c), a word-final stop is also deleted.

Again, as it is evident from the above data in (5b), that, there are differing deletion processes for ‘[l]-obstruent’ clusters and ‘[r]-obstruent’ clusters. In cases of the ‘[l]-obstruent’ clusters, the word final obstruents are deleted. For example,

- (6) /belʈ/ → [bel] ‘belt’
 /saʈ/ → [sal] ‘salt’
 /goɖ/ → [gol] ‘gold’

But in cases of ‘[r]-obstruent’ clusters, the liquid /r/ that precedes the final consonant tends to get deleted. For example,

- (7) /sarʈ/ → [saʈ] ‘shirt’
 /park/ → [pak] ‘park’

4 Analysis of Vowel Epenthesis and Consonant Deletion Processes in Word-final Clusters

It has been mentioned in section 3, that, word-final clusters are only found in OB words in standard Bangla. In case of the adaptation of OB English words with

word-final clusters in Dhaka dialect, both vowel epenthesis and deletion of segments occur. It is evident from the data presented in 3, that occurrence of consonant clusters word-finally is also not allowed in the Dhaka dialect. Therefore, a high-ranked markedness constraint *COMPLEX^{COD} (Kager, 1999) is active in Dhaka dialect, which can be defined as in (9).

- (9) *Complex^{CODA}
 ‘Codas are simple’ (Kager, 1999).

This constraint requires that the coda should not be complex. The outputs with word final consonant deletions in Dhaka dialect will violate the constraint ANCHOR-R, which does not allow any deletion at the right edges of the output. This constraint can be defined as in (10).

- (10) ANCHOR-R
 ‘Any segment at the right periphery of the output has a correspondent at the right periphery of the input’ (Kager, 1999).

Other constraints that we need to account for the word-final deletion is the faithfulness constraint MAX-IO, as the output with a deletion will be possible with the violation of this constraint. Also, we need DEP-IO and CONTIG C-Stop as the outputs with epenthetic vowels will violate these two constraints. These constraints are defined in (11), (12) and (13).

- (11) MAX-IO
 ‘Input segments must have output correspondents (No deletion)’
 (Kager, 1999).
- (12) DEP-IO
 ‘Output segments must have input correspondents (No epenthesis)’
 (Kager, 1999)
- (13) CONTIG C-Stop
 ‘An adjacent Consonant and Stop sequence standing in correspondence in the input form a contiguous string, as do the corresponding portion in the output’².

The constraint in (13) has been formulated generally for any C, rather than /s/, so that it can be extended to other clusters as well. Also, in all cases, ‘C-Stop’

² Acknowledgement: Thanks to Dr. Suzanne Urbanczyk (personal communication) for suggesting this approach.

sequences remain contiguous in Dhaka. However, these constraints alone cannot predict the different deletion patterns evident in ‘nasal-obstruent’ and ‘liquid-obstruent’ clusters. This deletion patterns in Bangla is fairly complex and I propose that the factor that determines the behavior of the word-final clusters is perceptual salience (Cote, 2004). According to Cote (2004), “only the least salient consonants may delete and frequency of deletion correlates with the relative perceptibility of the consonants” (p. 167). Cote adds that, “postvocalic consonants benefit from the cues present in vocalic transition” (p. 166), thus these consonants become perceptually stronger and less subject to deletion than the cluster-final consonants. This observation suggests that a constraint that does not allow deletion of consonants that are adjacent to a vowel. This perceptual salience based constraint is MAX-C/V (Cote, 2004) and it is defined as in (14).

(14) MAX-C/V

‘Do not delete a consonant that is adjacent to a vowel’ (Cote, 2004).

This constraint, I propose, is active in Dhaka dialect. Also, this claim that the perceptually salient consonants are not deleted, I think, clearly explains the reason why word final ‘nasal-obstruent’, ‘liquid [l]+obstruent’ and ‘stop-stop’ clusters in Dhaka dialect allows outputs where word-final consonants are deleted. To account for vowel epenthesis in ‘liquid+nasal’ clusters, we need two lower ranked faithfulness constraints DEP-IO and CONTIG-IO. DEP-IO has been defined in (12) and CONTIG-IO can be defined as in (15).

(15) CONTIGUITY-IO

‘The portion of S_1 standing in correspondence forms a contiguous string, as does correspondent portion of S_2 ’ (Kager, 1999).

4.1 Constraint ranking and tableaux

The optimal candidates will violate the faithfulness constraints ANCHOR-R and MAX-IO, therefore, they need to be crucially ranked lower than the markedness constraint *Complex^{CODA} to determine optimal candidate in Dhaka. The constraint MAX-C/V also needs to be crucially ranked higher than ANCHOR-R and MAX-IO to determine that the candidates with the deleted consonant adjacent to vowel will get ruled out. To account for deletions in ‘nasal-obstruent’, ‘liquid[l]+obstruent’ and ‘stop-stop’ clusters, we need CONTIG C-Stop and this constraint is crucially ranked higher than DEP-IO to make sure that candidates with an epenthetic vowel get ruled out.

To account for vowel epenthesis in ‘liquid+nasal’ clusters, CONTIG-IO, and DEP-IO need to be crucially ranked lower than *Complex^{CODA}, MAX-C/V and MAX-IO. Also CONTIG C-Stop is not required to account for the epenthesis

process, because there are no oral stops in these clusters. Thus, the ranking of constraints to account for word-final deletions in Dhaka dialect should be like in (16) and to account for vowel epenthesis, which is evident only in ‘liquid+nasal’ clusters, should be like in (17).

(16) *ComplexCODA , MAX-C/V, CONTIG C-Stop >> MAX I-O, ANCHOR-R, DEP-IO

(17) *ComplexCODA , MAX-C/V, MAX I-O >> CONTIG-IO, ANCHOR-R, DEP-IO

What follows now are tableaux to demonstrate how word-final deletion and epenthesis is obtained in Dhaka. The tableau in (18) demonstrates the deletion processes of ‘nasal+obstruent’ clusters, tableau (19) demonstrates deletion process evident in ‘liquid[l]+obstruent’ clusters, and tableaux (20) demonstrate deletion process of ‘stop+stop’ clusters. The vowel epenthesis in ‘liquid+nasal’ clusters has been presented in (21), followed by a discussion about the deletion of [r] in ‘liquid[r]+obstruent’ clusters.

(18) Tableau: Word-final consonant deletion in ‘nasal+obstruent’ cluster of OB in Dhaka dialect following the constraint ranking presented in (16).

/panʈ/ ‘pant’ (OB)	*Complex ^{CODA} lex	MAX- C/V	CONTIG C-Stop	MAX- IO	ANCHOR- R	DEP -IO
a) panʈ	*!					
b) paʈ		*!		*		
→ c) pan				*	*	
d) pa.naʈ			*!			*

In this tableau, candidate c) [pan] is a winning candidate. Although it violates the faithfulness constraint MAX-IO and ANCHOR-R, it satisfies the higher ranked constraints. Candidate a) [panʈ] has been ruled out for violating the highest-ranked constraint *COMPLEX^{COD}. Candidate b) [paʈ] appears with the consonant that was adjacent to a vowel and thus, gets ruled out for violating MAX-C/V. Candidate c) does not violate CONTIG C-Stop because the stop is deleted; it does not stand in correspondence in the output and hence CONTIG C-Stop is vacuously obeyed. Candidate d) [pa.naʈ] loses for violating crucially ranked constraint CONTIG C-Stop. The next 2 tableaux (in (19) and (20)) further demonstrate how cluster-final consonant deletion of OB words in Dhaka dialect is motivated by the higher ranked constraints Complex^{CODA}, MAX-C/V, and CONTIG C-Stop.

- (19) Tableau: Word-final consonant deletion in ‘liquid [l]+obstruent’ cluster of OB in Dhaka dialect following the constraint ranking presented in (16).

/gold/ ‘gold’ (OB)	* Compl ex ^{CODA}	MAX- C/V	CONTIG C-Stop	MAX- IO	ANCHOR- R	DEP -IO
a) gold	*!					
b) god		*!		*		
→c) gol				*	*	
d) go.lo			*!			*

- (20) Tableau: Word-final consonant deletion in ‘stop+stop’ cluster of OB in Dhaka dialect following the constraint ranking presented in (16).

/lipʰt/ ‘lift’ (OB)	* Compl ex ^{CODA}	MAX- C/V	CONTIG C-Stop	MAX- IO	ANCHOR- R	DEP -IO
a) lipʰt	*!					
b) lit		*!		*		
→c) lipʰ				*	*	
d) li.pʰit			*!			*

In the tableau presented in (19), the candidates c) [gol] and in tableau in (20), candidate c) [lipʰ] are winning candidates as they satisfy higher ranked constraints Complex^{CODA}, MAX-C/V, and CONTIG C-Stop, while rest of the candidates each violates one of those candidates and get ruled out for violating them.

The tableau in (21) demonstrates the vowel epenthesis process. As it was presented in (4), vowel epenthesis is evident only in word-final ‘liquid+nasal’ clusters in OB of Dhaka dialect. For example, /hɔɾn/ ‘horn’ → hɔɾɔn; and /film/ ‘film’ → filɪm. Both ‘liquid [r]+nasal’ and ‘liquid [l]+nasal’ clusters of OB words experience vowel epenthesis in Dhaka. Tableau in (21a) presents vowel-epenthesis in ‘liquid [r]+nasal’ clusters and in tableau (21b), the vowel-epenthesis process in ‘liquid [l]+nasal’ clusters.

- (21) a. Tableau: Word-final vowel epenthesis in ‘liquid [r]+nasal’ cluster of OB in Dhaka dialect following the constraint ranking presented in (17).

/hɔɾn/ ‘horn’ (OB)	* Compl ex ^{CODA}	MAX- C/V	MAX- IO	CONTIG -IO	ANCHO R-R	DEP- IO
a) hɔɾn	*!					
b) hɔɾɔn		*!	*	*		
c) hɔɾ			*!		*	

→d) hɔ.rɔn			*		*
------------	--	--	---	--	---

(21) b. Tableau: Word-final vowel epenthesis in ‘liquid [l]+nasal’ cluster of OB in Dhaka dialect.

/film/ ‘film’ (OB)	*Complex ^{CODA}	MAX-C/V	MAX-IO	CONTIG-IO	ANCHOR-R	DEP-IO
a) film	*!					
b) fim		*!	*	*		
c) fil			*!		*	
→d) fi.lm				*		*

In the tableaux presented in 21 (a) and 21 (b), the candidates d) [hɔ.rɔn] and [fi.lm] are winning candidates as they satisfy higher ranked constraints Complex^{CODA}, MAX-C/V, and CONTIG C-Stop. Their violations of lower ranked constraints CONTIG-IO and DEP-IO are considered less costly. Candidates in a) in both the tableaux get ruled out for violating highest ranked constraint *Complex^{CODA}. Candidates in b) violate 3 constraints but get ruled out for violating higher ranked MAX C/V. Finally, candidates c) in both the tableaux violate MAX-IO and ANCHOR-R but they lose for violating MAX-IO as it was crucially ranked over ANCHOR-R.³

4.2 An account of the deletion of /r/ in ‘liquid[r]+obstruent’ clusters

The focus of this section is on the deletion of /r/ in ‘liquid[r]+obstruent’ clusters word finally in Dhaka dialect. While the cluster-final obstruent gets deleted in ‘liquid [l]+obstruent’ clusters, the /r/ in ‘liquid [r]+obstruent’ clusters tends to get deleted (data presented in (48)). Following Cote’s (2004) analysis of /r/ deletion in Quebec French, I interpret that /r/ in the Dhaka dialect becomes subject to deletion in post-vocalic position. According to Cote, in post-vocal positions, /r/ becomes a vocalic off glide and may even reduce to nothing. This happens when /r/ is in absolute word final position and when it is followed by a consonant. Thus this apparent deletion of /r/ in ‘[r]+obstruent’ clusters in Dhaka, in fact, is a process of merger of /r/ with the preceding vowel (Cote, 2004). Cote (2004) also added that /r/ can be considered as a glide in post-vocalic position (e.g., in Quebec French) which helps to take place the cluster simplification by effectively reducing /r/-initial word-final clusters to a single consonant. Based on this interpretation, the constraint MAX-C/V (defined in (50)), which motivates the

³ In the tableaux in 56 (a & b), CONTIG C-Stop was not included to save space, and also due to the fact that, this constraint is not relevant here, as none of the words in the tableaux have oral stops.

optimal output for word-final ‘nasal+obstruent’ ‘liquid [l]+obstruent’ and ‘stop+stop’ clusters in Dhaka dialect, is also not violated by the output with the deleted /r/ in ‘liquid[r]+obstruent’ clusters (i.e., when /park/→[pak] ‘park’ (OB).

This interpretation of /r/ deletion in word-final ‘liquid [r]+obstruent’ clusters in Dhaka dialect can be extended to a perception-based interpretation of loanword adaptation as well, as in the Perception Approach (Peperkamp & Dupoux, 2003). According to the Perception Approach, the changes of non-native sounds in loan words are made at the perceptual level and it does not always involve phonology (Lin, 2009). Lin (2009) adds that, loanword adaptations are “influenced rather than computed by phonological grammar” (p. 1). As Bangladesh was under British rule for over 200 years, British English is predominantly spoken there. As we know, British English does not pronounce [r] in the word-final ‘liquid [r]+obstruent’ contexts. Thus, in Dhaka dialect /r/ might not be in the input. People in Dhaka may not hear /r/ in ‘[r]+obstruent’ contexts or as Cote (2004) interpreted, due to /r/’s merger with preceding vowel they might perceive /r/ as a vowel. Thus it can also be interpreted as an effect of auditory perception of English source language form by borrowing language speakers of Dhaka dialect.

5 Conclusion

This paper has presented an OT analysis of the different deletion processes found in ‘nasal+obstruent’ ‘liquid [l]+obstruent’, ‘liquid [r]+obstruent’ and ‘stop+stop’ clusters and the only epenthesis process evident in ‘liquid+nasal’ clusters of OB word adaptation into Dhaka dialect. With tableaux, it has been demonstrated that a high-ranked markedness constraint *COMPLEX^{COD} (Kager, 1999), is active in Dhaka dialect. Also, while MAX-C/V motivates the optimal outputs with a deleted consonant in ‘nasal+obstruent’ ‘liquid [l]+obstruent’ and ‘stop+stop’ clusters, the vowel epenthesis in ‘liquid+nasal’ clusters is allowed by two lower ranked faithfulness constraints CONTIG-IO and DEP-IO. Finally, it has been interpreted that the apparent /r/ deletion in ‘liquid [r]+obstruent’ clusters of OB is a process of merger of /r/ with the preceding vowel (Cote, 2004) or it is an effect of auditory perception of English source language form (i.e., perceiving /r/ as a vowel) by borrowing language speakers of Dhaka dialect.

References

- Chatterji, S K. (1926). *The Origin and Development of the Bengali Language*. Calcutta University, Calcutta.
- Chatterji, S. K. (1921). Bengali phonetics. *Bulletin of the School of Oriental Studies*, 2(1), 1-25.

- Cote, M. (2004). Consonant cluster simplification in Quebec French. *Probus*, (16), 151-201.
- Gouskova, M. (2001). Falling sonority onsets, loanwords, and syllable contact. In M. Andronis, C. Ball, H. Elston & S. Neuvel (Eds.), *CLS 37: The main session. Papers from the 37th meeting of the Chicago Linguistic Society* (pp. 175-186). Chicago: The Chicago Linguistics Society.
- Kager, R. (1999). *Optimality theory*. Cambridge: Cambridge University Press.
- Kar. S. (2009). The syllable structure of Bangla in Optimality Theory and its application to the analysis of verbal inflectional paradigms in Distributed Morphology. Unpublished Doctoral Dissertation. Url: <http://tobias-lib.uni-tuebingen.de/volltexte/2009/3864/>. Retrieved October 24, 2009.
- Lin, Y. (2009). Loanword adaptation and phonological theory. *Proceedings of the 21 North American Conference on Chinese Linguistics (NACCL-21)*. 2009. Volume 1. Edited by Yun Xiao. Smithfield, Rhode Island: Bryant University. Pages 1-12.
- McCarthy, J. J. & A. Prince. (1993a). Generalised alignment. In G. Booij & J. van Marle (Eds.), *Yearbook of Morphology 1993* (pp. 79-153). Dordrecht: Kluwer.
- Prince, A. & P. Smolensky. (1993). *Optimality theory: constraint interaction in generative grammar*. Ms., Rutgers University, New Brunswick and University of Colorado, Boulder. Later published as in 2004 from Blackwell Publishing, Malden, MA.
- Peperkamp, S. & Dupoux, E. (2003). Reinterpreting loanword adaptations: the role of perception. *ICPhS*, 15, 367-370.
- Shahidullah, M. (1965). *Bangla Bhasar Itibirtto*. Mowla Brothers, Dhaka.

The structural category of past tense *woon* in Wolof

Christen Harris

University of Western Ontario

callen55@uwo.ca

This article investigates the structural distribution of the past tense morpheme *woon* in Wolof. In negative sentences the verbal suffix is excluded. Following Zribi-Hertz and Diagne 2002, two possible locations in which the feature +PST can be generated are identified: in the head of TP or in Spec of TP, realized as a verbal suffix and an adverb respectively. It is shown that the distribution of +PST is reversed between affirmative and negative contexts. A systematic approach involving contextual allomorphy and a weakened version of the No Lookahead Principle is applied to the Wolof data to explain the absence of the past tense suffix on the verb in negative contexts.

1 Introduction

This article addresses the complementary distribution of two inflectional affixes in Wolof. The two affixes in question are the negative suffix *-ul* and the past tense suffix *-oon*. (To avoid confusion over the various phonetic realisations of these suffixes, I will refer to them using their abstract morphosyntactic features, +Neg and +PST respectively, unless the phonetic content is relevant.) The presence of +Neg on the verb seems to prohibit the appearance of +PST as a verbal affix. What is confusing about this complementary distribution is that Negation, as will be shown later, is higher in the syntactic structure than Tense. Yet it conditions the behaviour of a lower node, Tense, violating the No Lookahead Principle. I argue that the negative suffix *-ul* and the past suffix *-oon* are in complementary distribution at the surface level but the features +Neg and +PST are not incompatible as has been previously assumed (Zribi-Hertz and Diagne 2002).

The next section presents a brief overview of the relevant aspects of verbal morphology in Wolof and the syntactic hierarchy of the inflectional domain. In section 3, I introduce data showing the distribution of negative and past suffixes. Following a discussion of this data, I take a small detour to explain the No Lookahead Principle and Contextual Allomorphy (Bobaljik 2000) in section 4 and then apply these principles to the Wolof data to provide a systematic approach to the complementary distribution of *-oon* and *-ul*.

2 Verbal Morphology

In Wolof, verbs are always inflected for the person and number of the subject and optionally for negation and tense. The only overt tense inflection is the past tense suffix *-oon*, which is, again, optional as time reference in Wolof is given primarily by aspectual relations. Verbs are lexically specified for either perfective or imperfective aspect. Stative verbs are imperfective and receive a progressive (present) reading and non-stative verbs are perfective and receive an accomplished (past) interpretation (Njie 1982; Dunigan 1994; Zribi-Hertz and Diagne 2002; Mc Laughlin 2004). Imperfective aspect is overtly indicated with non-stative verbs by an auxiliary verb *di*.

Inflectional affixes are always suffixes and attach to the verb or the auxiliary *di* via Head Movement of the verb or auxiliary to Pers. All inflectional elements are introduced via functional heads. For our purposes, I adopt a slightly simplified version of the inflectional domain put forth by Zribi-Hertz and Diagne (2002). There are four inflectional heads dominating the verb: Pers > Neg > T > Asp > V. Of these elements, only the verb and the aspectual auxiliary stand as independent words. The ordering of inflectional elements can be seen via the attachment order in example (1) as well as the hierarchical representation in Figure 1.

- (1) Xale yi d-oon-u-ñu lekk ceeb bi
 child DEF.SG IMP-PST-NEG-3PL eat rice DET.SG
 ‘The children would not eat the rice.’

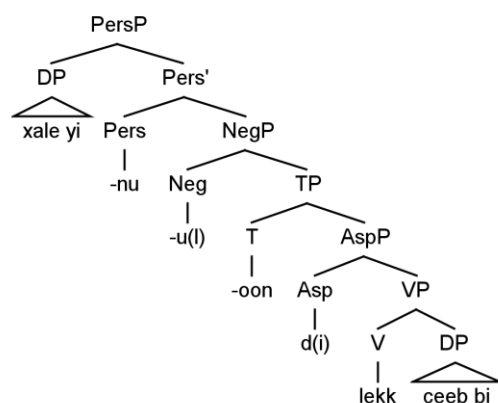


Figure 1.

According to this structure, +PST is generated in T and realized as *-oon*. In the next section, I present data that show this structure is not adequate for Wolof.

3 +PST

The +PST feature is traditionally placed in T. While this is the most logical place, data from Wolof show that the expression of +PST is more complicated than this; +PST can surface as a verbal suffix as in (1) or as an independent word separated from the verb as in (2).

- (2) Lekk-ulo ko woon
 eat-NEG.2SG OBJ PST
 ‘You did not eat it.’
 (Mc Laughlin 2004; 246)

The morphology in (2) clearly shows that the verb has raised to Neg and Pers without the +PST morpheme attaching to the verb. This indicates, unlike the above structure predicts, that in this sentence +PST is not in T since a verb cannot bypass a head position while raising. The presence of the object clitic further reinforces the conclusion that +PST could not have been generated in T as previously assumed.

Zribi-Hertz and Diagne (2002) explain the variable positioning of +PST by proposing that +PST feature is generated in two different positions: either T or the Spec of TP. When generated in T, +PST surfaces as a verbal suffix, *-oon*. When generated in the Spec of TP, +PST surfaces as an adverb, *woon*, uninvolved in verb movement. They further support this proposal by showing that +PST can optionally be expressed twice in the sentence.

- (3) Xale yi lekk-oon-nañu woon ceeb bi
 child DET.SG eat-PST-3PL PST rice DET.SG
 ‘The children had eaten the rice in the past.’

It is clear that there must be two positions for +PST in order to have two realizations of +PST in the sentence.

Zribi-Hertz and Diagne (2002) do not address why +PST can appear as a verbal suffix as in example (1) while other times as an adverb, as in example (2). For their analysis, the position of +PST is a matter of choice, either T or Spec of TP or both. However, looking at the data more closely, the presence of the adverbial +PST is restricted by the presence or absence of the suffix.

3.1 Restrictions on +PST in Spec of TP

There are two possible constructions with +PST in affirmative sentences; +PST can be expressed as i) a suffix on the verb or ii) a suffix on the verb and additionally as an adverb.

- (4) Xale yi lekk-oon-nañu ceeb bi
 child DET.PL eat-PST-3PL rice DET.SG
 ‘The children had eaten the rice.’
 (Zribi-Hertz and Diagne 2002; 828)
- (5) Xale yi lekk-oon-nañu woon ceeb bi
 child DET.SG eat-PST-3PL PST rice DET.SG
 ‘The children had eaten the rice in the past.’
- (6) *Xale yi lekk-nañu woon ceeb bi
 child DET.PL eat-3PL PST rice DET.SG
 ‘The children ate the rice in the past.’

In example (4), +PST is generated solely in T and surfaces as the verbal suffix *-oon*. In example (5), +PST appears twice in the sentence: as the verbal suffix *-oon* and as the adverb *woon*. Example (6) shows that the adverbial form is only permitted when the suffixal form is present. +PST cannot be generated solely in Spec of TP. The distribution of +PST is further restricted in negative sentences.

- (7) *Xale yi lekk-oon-u(l)-ñu ceeb bi
 child DET.PL eat-PST-NEG-3PL rice DET.SG
 ‘The children had not eaten the rice.’
 (Zribi_Hertz and Diagne 2002; 831)
- (8) Xale yi lekk-u(l)-ñu woon ceeb bi
 child DET.PL eat-NEG-3PL PST rice DET.SG
 ‘The children had not eaten the rice.’
 (Zribi-Hertz and Diagne 2002; 831)

Unlike the affirmative example, the +PST morpheme, *-oon*, cannot co-occur with the negative affix, *-ul*, on the verb as shown in (7). There is only one way to express past tense in negative sentences, using the adverbial form *woon*.

There is one exception to this distribution that remains unexplained; *-oon* and *-ul* can co-occur when attached to the imperfective auxiliary *di*. This is the only example which shows both suffixes.

- (9) Xale yi d-oon-u-ñu woon lekk ceeb bi
 child DET.PL IMP-PST-NEG-3PL PST eat rice DET.SG
 ‘The children would not have eaten the rice in the past.’
 (Zribi-Hertz and Diagne 2002; 831)

The verb in (7) is not only lexical but non-stative and thus is inherently marked for perfective aspect. The auxiliary *di* in (9) is, however, marked for imperfective aspect. The hypothesis that aspect restricts the combination of +PST and +Neg is testable using stative verbs, which are lexical but inherently imperfective.

- (10) Xale yi xiifu-ul-ñu woon
 child DET.PL hungry-NEG-3PL PST
 ‘The children were not hungry.’

- (11) *Xale yi xiifu-oon-ul-ñu
 child DET.PL hungry-PST-NEG-3PL

Stative verbs show that the aspectual difference between examples (7) and (9) does not explain the difference in the attachment of *-oon* as they pattern with non-stative lexical verbs. It is worth mentioning that the auxiliary *di* + *oon* is never interpreted as Imperfective Past as its morphological components would suggest. Instead, it gets a conditional reading, ‘would’ as seen in the translation of example (9). The morphological composition of *doon* merits further investigation but will not be addressed further in this article.

In summary, data from affirmative sentences shows that +PST can only be generated in Spec of TP if it is first generated in T while data from negative sentences show that +PST cannot occupy T but must occupy Spec of TP.

+PST	Affirmative	Negative
T	YES	NO
T and Spec of TP	YES	NO
Spec of TP	NO	YES

Figure 2.

The affix/adverb analysis of Zribi-Hertz and Diagne accounts for some of the data presented here but it cannot account for the complementary distribution of +PST and +NEG on lexical verbs. They stipulate that in negative sentences the head position, T, remains empty but do not elaborate on how a node can affect the derivation at lower levels. Strictly speaking, it should not. Tense is generated before Negation, therefore, information of polarity should be of little importance during the fusion of the Tense head. I argue that Negation does not in fact affect the morphosyntactic derivation of tense. When present in the sentence, +PST is

always generated in T and can be reiterated by a second +PST specification in the Spec of TP. The complementary distribution of negation and past tense is the result of allomorphy at the level of vocabulary insertion, which is discussed in the following sections.

4 Contextual Allomorphy

In this section, I stray momentarily from the discussion of Wolof data to describe the No Lookahead Principle (or NLP) and its role in Contextual Allomorphy. Bobaljik (2000) addresses the validity of the NLP as a principle of morphosyntactic derivations. (See Simpson and Withgott 1986 for a more detailed discussion of the NLP.) In its strongest form, the NLP states that morphological derivations are cyclical and only information from earlier cycles in the derivation is available to condition morphophonological processes (such as allomorphy) in later stages. This essentially means that the form of a morpheme added early in the derivation will not be conditioned by another morpheme added later in the derivation. Stem allomorphy, such as the English *receive/recep-tion*, shows that the addition of an affix can condition the form of the root, which violates the NLP. Bobaljik proposes a very specific weakening of the NLP to account for such allomorphy. He asserts that allomorphy resulting from morphosyntactic features is outwards sensitive and the NLP does not apply, while allomorphy resulting from morphophonological features is inwards sensitive and thus follows the NLP.

To support his proposed weakening of the NLP, Bobaljik presents data from Itelman verbal morphology. In Itelman, the verb is inflected for object and subject agreement. The form of the object agreement suffix is conditioned by the features of the subject but the subject prefix is never conditioned by the features of the object. What is crucial from this, is the fact that the more peripheral subject prefix conditions the choice of allomorph for the earlier object suffix. Figure 3 shows the allomorphic variation of the object agreement suffix as presented in Bobaljik 2000 (pg 7).

Itelmen Agreement: 3 Person DO		
Subject	Direct Object	
	3SG	3PL
1SG, PL Impersonal	-čen	-čeʔn
2 SG Real	-(i)n	-(i)ʔn
Irreal	-x(č)	-(x)iʔn
2PL	-sx	-sxiʔn
3SG, PL	-nen	-neʔn

Figure 3.

This type of “outwards sensitive” conditioning is possible because it is triggered by morphosyntactic features. The derivation of the verb is completed with abstract feature bundles and at the end of the derivation each feature bundle is given phonetic content during Vocabulary Insertion. The morphosyntactic features are already present and the NLP does not apply. In addition, Vocabulary Insertion uses up the features of each particular node so they are no longer available to condition allomorphy in later morphemes. Thus, the subject’s features are present to condition the insertion of a particular vocabulary item for the object agreement resulting in allomorphy. However, the object features are not present at the time of insertion of the subject prefix and so the object never conditions its phonetic form in Itelman.

If we apply this weakened version of the NLP to Wolof, we can correctly account for the superficial complementary distribution of +PST and +Neg as a case of contextual allomorphy similar to the Itelman example. I explain this analysis in the next section.

4.1 Contextual Allomorphy in Wolof

It is clear that +PST can be generated in two positions simultaneously as shown in example (5). I have shown that +PST must be generated in T in order for +PST to be generated in Spec of TP. The presence of the adverbial form is predicated the affixal form. In negative sentences however, the morphosyntactic feature, +Neg triggers the selection of a null allomorph for +PST during Vocabulary Insertion much like the subject features described in the Itelman data above. Since +Neg is a morphosyntactic feature generated before Vocabulary Insertion, there is no NLP violation. Thus when +Neg is present on the verb, there will be no overt phonetic realization of past tense. However, the feature +PST is still generated allowing the reiteration of +PST in Spec of TP. The +PST specification located in Spec of TP stays outside the morphological domain and remains thus, unaffected by negation; *woon* surfaces as an adverb indicating the past nature of the event. However, in affirmative contexts, the adverb never surfaces without the suffix because there is no feature to condition the selection of the null allomorph; *-oon* surfaces every time.

The analysis presented has several advantages. First, in specifying that +PST is always generated in T, there is no need to create an empty head position simply to fill the Spec of that head later, as proposed by Zribi-Hertz and Diagne (2002). In addition, it provides a systematic approach to explain the absence of the +PST affix (*-oon*) in negative contexts.

5 Conclusion

My goals in this article have been i) to present a description of the distribution of the past tense suffix *-oon* and adverb *woon* as well as ii) to present an explanation for the complementary distribution of the negative suffix *-ul* and the past tense suffix *-oon*. It has been shown that the feature +PST can be generated in two possible positions: T or Spec of TP. I have further shown that the choice between these two positions is not entirely free; the specification of +PST in Spec of TP is only licit if +PST is first specified in T. I argue that the complementary distribution of the negative suffix and the past tense suffix is only superficial and is the result of contextual allomorphy. The feature +Neg triggers the insertion of a null allomorph for the suffix *-oon* during Vocabulary Insertion. This approach provides a systematic explanation of the absence of the suffix *-oon* in negative contexts and reconciles the behaviour of *-oon* in both affirmative and negative contexts. Not all problematic cases have been addressed here. Further investigation of the auxiliary *di* when combined with the past suffix *-oon* and the negative suffix *-ul* is required.

Acknowledgments

Unless otherwise indicated the Wolof data presented here was collected from native language consultants. I am very grateful to Moustapha Fall and El-Hadji Camara for their invaluable help with data collection and grammaticality judgements.

References

- Bobaljik, J. (2000). The ins and outs of contextual allomorphy. In *University of Maryland Working Papers in Linguistics* 10: 35-71.
- Dunigan, M. (1994). *On the clausal structure of Wolof*. Doctoral Dissertation, The University of North Carolina at Chapel Hill.
- Mc Laughlin, F. (2004). Is there an adjective class in Wolof? In *Adjective classes: A cross-linguistic typology*, R. M. W. Dixon et Alexandra Y. Aikhenvald, eds. 242-262. Oxford : Oxford University Press.
- Njie, C. M. (1982). *Description syntaxique du wolof de Gambie*. Dakar: Nouvelles éditions africaines.
- Simpson, J. and M. Withgott. (1986). Pronominal clitic clusters and templates. In *The syntax of pronominal clitics*, Hagit Borer ed., 149-174. Academic Press: Orlando. Cited in Bobaljik 2000.

Zribi-Hertz, A. and L. Diagne. (2002). Clitic placement after syntax: Evidence from Wolof person and locative markers, *Natural Language & Linguistic Theory* 20: 823-884.

Epenthesis, intrusion, or deletion?

Vowel alternation in consonant clusters by Japanese ESL learners

Akitsugu Nogita
University of Victoria
akitsugu@uvic.ca

This study investigates whether vowel insertion in English consonant clusters produced by Japanese English-as-a-second-language (ESL) learners is due to misarticulation or misinterpretation. Intermediate level Japanese ESL learners read aloud written English words and mimicked auditory English words. The results showed that the participants inserted a vowel in consonant clusters notably less frequently in the mimicking task than in the reading task, suggesting that the participants can perceive and produce consonant clusters. The participants were also asked to divide each stimulus word into syllables, and they often clearly pronounced extra vowels: e.g. ‘ba-do-min-ton’ for ‘badminton.’ I conclude that vowel insertion is not because of their inability to articulate consonant clusters, but their misinterpretation that there is a vowel where there is actually not. When they mimicked auditory stimuli, they phonetically deleted such vowels, but vowels still existed in their phonological representations.

1 Introduction

This study investigates whether the vowel insertion in English consonant clusters produced by Japanese English-as-a-second-language (ESL) learners is due to misarticulation or misinterpretation that there is a vowel between the consonants. It is well attested that second language (L2) learners may insert a vowel into a consonant cluster that is illegal in their first language (L1). There are three possible motivations, ‘epenthesis’, ‘intrusion’, and ‘incorrectly perceived L2 input.’ Briefly, epenthesis is a lexical vowel insertion which occurs to satisfy lexical syllabification, whereas intrusion does not involve a syllabic or moraic lexical vowel but a vowel-like sound occurs between a consonant cluster when the first consonant is released before the second consonant starts (Hall, 2006; Davidson & Stone, 2004). Another way to say this is that an epenthetic vowel is intentional, while an intrusive vowel is likely to be unintentional but is due to a gestural timing issue. I assume that Japanese ESL learners’ vowel insertion is neither of these, but ‘incorrectly perceived L2 input’; they misinterpret that there

is supposed to be a vowel. For example, they may assume that ‘badminton’ is supposed to be ‘badominton.’

Dehaene-Lambertz, Dupoux, and Gout (2000) stated that Japanese speakers paid little attention to whether the vowel [u]¹ is present or absent in phonotactically illegal consonant clusters, such as ‘igmo’ vs. ‘igumo’. Funatsu et al. (2008) argued that Japanese speakers can detect consonant clusters that are illegal in Japanese. In their experiment, novice Japanese English-as-foreign-language (EFL) learners heard and mimicked English words with mostly [t/d] + [ɹ] clusters. The participants generally pronounced the clusters correctly without vowel insertion. Funatsu et al. also mentioned that occasional short vowel insertion was vowel intrusion, or gestural mistiming. However, according to their data, the inserted vowels were mostly [o] and [u], both of which are common Japanese epenthetic vowels. If these were really intrusion, these would have been [ə]-like sounds. Therefore, I assume that these vowels were not intrusion, but occurred at a more phonological level. Besides, Funatsu et al.’s consonant clusters were mostly in word-initial positions, and [t/d] and [ɹ] are distant in sonority; stops like [t/d] are low while approximants like [ɹ] are quite high in sonority hierarchy. Since word-initial segments are salient and consonant sequences with great sonority distance are less marked, I will use word-medial clusters with smaller sonority distance, such as obstruent-obstruent sequences, which are more marked.

2 Experiment

2.1 Participants

I recruited eight lower-intermediate to upper-intermediate Japanese ESL learners in Canada with relatively short length of residence (3 to 13 months) in an English speaking country. All of them were females in their 20’s. They were all from Kantô or Chûbu regions. None of them reported a hearing problem.

2.2 Stimuli

The stimuli were 12 real words and 12 nonsense words that had consonant clusters [b, d, g] + [obstruent, n, m, l] in a word-medial position, which are phonotactically illegal in Japanese. The real words were considered familiar to Japanese speakers as loanwords. All the real words had primary stress on the first syllable. Nonsense English words were made based on English phonotactics. I avoided the vowel /u/, which is phonetically similar to the default

¹ The high non-front vowel in standard Japanese is typically realized as [ɯ] which does not have lip rounding or lip protruding (Tsuzuki, 1996). Since in standard Japanese [ɯ] and [u] are not phonologically contrastive, Funatsu et al. (2008) and Dehaene-Lambertz (2000) used [u]. When I cite them, I use [u]. Otherwise, I use [ɯ].

Japanese epenthetic vowel /u/ (Strange, et al. 2008), as well as /oʊ/ after /d/ which is phonetically similar to the common Japanese epenthetic vowel /o/ after /d/ as in ‘badminton.’ There were also eight real and eight nonsense word fillers. Since most of the crucial items were disyllabic, I made most fillers not disyllabic. Including fillers, there were 20 real words and 20 nonsense words.

These 20 real words were randomized in order, and so were the nonsense words, and the written stimuli and audio stimuli were in different order. The written stimuli were printed on a sheet. The audio stimuli were produced by a phonetically trained female native speaker of Canadian English. The stimuli were recorded in a booth in the UVic Linguistics Speech Research Lab. Following are the stimuli. Parenthesized words are fillers.

1. Real words: subject, webmail, webnet, tablet, foodbank, badminton, Sydney, badly, rugby, eggman, magnet, ugly, (avocado, banana, coconut, fruit, grape, ice-cream, strawberry, vegetable)
2. Nonsense words: ebdet, gabmee, gabno, cabla, idgay, cadma, pednay, edlee, agday, egmad, hegneb, agla, (ba, cantukpeg, gamboozee, jeejee, ma, muzz, smecks, sna)

2.3 Procedure

There were four tasks: two production tasks and two syllabification tasks. In the first task, the participants were recorded reading aloud the written real words and nonsense words. The recording was done with the software Audacity set at 44100 Hz and 32-bit float in the UVic Phonetics Lab. In the second task, the participants were asked whether they know what ‘syllable’ (or ‘*onsetsu*’ in Japanese) was, and they were asked to separate each written word into syllables. I demonstrated how to divide the Japanese word ‘*wasabi*’ into ‘*wa-sa-bi*’ by making a pause between syllables, and explained that the monosyllabic Japanese word ‘*ka*’ (mosquito) could not be divided into a smaller unit. The participants who did not know syllables were instructed to syllabify according to their impression. In the third task, they listened to each stimulus without looking at written cues and immediately mimicked the stimulus. To avoid practice effects, the participants heard each stimulus only once, except for a few cases when the participants could not say anything. In the fourth task, the participants listened to each word and divided it into syllables without looking at written cues.

3 Results and Discussion

3.1 Results of the Production Tasks

The participants generally tended to insert a vowel in consonant clusters but there were different tendencies between the reading and mimicking tasks. All the participants inserted a vowel more frequently and mean duration of the vowels tended to be longer in the reading task. These results agree with Funatsu et al.'s (2008) study. The participants sometimes clearly released or aspirated the first consonant although there were acoustically no periodic pitch pulses. They occasionally made the first consonant and an inserted vowel coalescent, as in [g] and the inserted vowel in 'rug(u)by' coalescing to form [ɣ]. Release, aspiration, and coalescence tended to occur more frequently in the mimicking task. Such productions were counted as incorrect productions but not as vowel insertions. Overall, all the participants correctly pronounced consonant clusters more frequently in the mimicking task. Table 1 and 2 show the number of vowel insertion, mean duration of inserted vowels, the number of release, aspiration, or coalescence, and the number of correct productions of consonant clusters in both reading and mimicking tasks. Irrelevant productions, such as pronouncing a wrong word, were discarded.

Table 1.

Productions of consonant clusters in the real words. Nb: 'Re' = reading task; 'Mi' = the mimicking task; '# of V Ins.' = the number of vowel insertion; 'M. Duration' = mean duration of the inserted vowels; '# of Rel, Asp, Coalescence' = the number of release, aspiration, or coalescence; 'Correct' = the number of correct productions.

Participants	P1		P2		P3		P4		P5		P6		P7		P8	
Stimuli	Re	Mi	Re	Mi	Re	Mi	Re	Mi	Re	Mi	Re	Mi	Re	Mi	Re	Mi
# of V Ins.	9	7	8	5	6	1	11	7	9	5	10	7	12	5	2	2
M. Duration	32ms	25ms	24ms	22ms	43ms	7ms	26ms	27ms	59ms	30ms	32ms	25ms	55ms	36ms	17ms	15ms
# of Rel, Asp, Coalescence	1	2	3	3	1	3	0	4	2	2	2	1	0	4	2	0
Correct	1	3	1	4	5	8	1	1	1	4	0	4	0	3	8	10

Table 2.

Productions of consonant clusters in the nonsense words.

Participants	P1		P2		P3		P4		P5		P6		P7		P8	
Stimuli	Re	Mi	Re	Mi	Re	Mi	Re	Mi	Re	Mi	Re	Mi	Re	Mi	Re	Mi
# of Ins.	9	1	5	1	9	0	12	2	8	5	8	4	12	6	9	1
M. Duration	21ms	20ms	29ms	27ms	71ms		30ms	22ms	68ms	17ms	49ms	35ms	47ms	29ms	26ms	35ms
# of Rel, Asp, Coalescence	0	4	1	4	1	3	0	6	1	1	4	3	0	3	0	2
Correct	3	6	3	7	2	9	0	4	2	6	0	5	0	3	3	9

3.2 Results of Syllabification Tasks

Reportedly, only P1 and P8 had received formal instruction on English syllabification in Canada, but not in Japan, about a month and half a year prior to the experiment respectively. The summary of the number of errors is shown in Table 3. The results show that only P8 correctly syllabified all the words, and P1 made fewer errors than the others. P8 performed better probably because she had known syllable for longer than P1. According to Ueyama (2003) Japanese ESL learners with more than five years of residence in the U.S. may not naturally acquire English syllabification. However, these results suggest that formal instruction can greatly help Japanese ESL learners aware of it.

Table 3.

Errors in the syllabification tasks. Nb: P1 and P8 had explicit knowledge of English syllabification.

	*P1	P2	P3	P4	P5	P6	P7	*P8
Real words								
reading – mimicking	4 – 4	17 – 8	4 – 7	7 – 8	8 – 7	16 – 16	6 – 9	0 – 0
Nonsense words								
reading – mimicking	1 – 1	17 – 11	4 – 3	2 – 4	6 – 2	17 – 17	3 – 5	0 – 0
Overall								
reading – mimicking	5 – 5	34 – 19	8 – 10	9 – 12	14 – 9	33 – 33	9 – 14	0 – 0

The participants' error patterns were quite inconsistent, such as mora-based, foot-based, morpheme-based, or others. For example, P2 divided 'webnet' into 'we-b(u)-ne-t^(h)' referring to a mora while dividing 'icecream' into 'i-ce-cream'. This implies that the participants did not know what to do in the syllabification task. I interpret that their errors were random, or pre-systematic errors. What is interesting is the way of their pronunciation. For example, P6 correctly pronounced the consonant cluster in 'eggman' without releasing /g/ in the mimicking task, while when syllabifying the audio stimulus, she pronounced [ɛ-gu-mæn] with clear [u] after [g]. The other participants also tended to add clear [u] or [o] after voiced consonants and add aspiration or devoiced vowels [ɰ] or [ɔ̥] after voiceless consonants: e.g. [sʌ-bu-dʒɛ-kɰ-tɔ̥] 'subject.' This implies that the participants were able to pronounce target-like consonant clusters at the phonetic level, but there were vowels at their phonological underlying level, or in their mind.

3.3 Discussion

In Nogita (2010) I found that many Japanese ESL learners are never taught the basic English symbol-sound correspondence rules. Therefore, it is likely that Japanese ESL learners built their own English symbol-sound correspondence rules. Considering the fact that they often added an extra vowel, Japanese

learners' perception of the English orthography is like abugida, or alphasyllabary, rather than alphabet; each consonant letter, probably except for <N>, has a default following vowel which is pronounced every time the consonant requires a following vowel according to Japanese phonotactics; for example, the italicized consonant letters in 'subject' and 'webmail' are not followed by a vowel letter, but are pronounced as [bu], [ku], [to], [bu], and [lu] (or [ru]) respectively.

As for the mimicking task, the participants more frequently produced consonant clusters correctly. This indicates that at least Japanese ESL learners with several months of exposure to native English can produce consonant clusters correctly. As mentioned in §3.1, the participants sometimes released the first consonants in clusters, or devoiced /b/, /d/, and /g/ and aspirated them, especially in the mimicking task. Goad et al. (2003) reported the same tendency. My participants' aspiration in a consonant cluster is considered as a voiceless vowel, often [u]. This interpretation is consistent with the interpretation that there is a vowel at their underlying representation (UR). Urbanczyk (1996) reported a similar phenomenon in Salish; there is syllabic aspiration, which is actually a voiceless schwa. When the participants released the first consonant, such as [b] in 'subject', the release was actually /u/ in their mind, which was phonetically minimized. Figure 1 shows the comparison among 'epenthesis', 'intrusion', and Japanese ESL learners' interpretation of English words where a vowel exists in the first place, which is allophonically *weakened* or *deleted*. For example, if a learner knows that 'gb' in 'rugby' is a consonant cluster but adds a lexical vowel [u] in order to make it fit in his/her L1 phonotactics, it is epenthesis. If a learner tries to produce [gb] but fails to coordinate two consonants in production, it is intrusion. If a learner misinterprets 'gb' as /guɒb/ but this /u/ is altered to [u], \emptyset and so forth at the surface level, it is weakening or deletion.

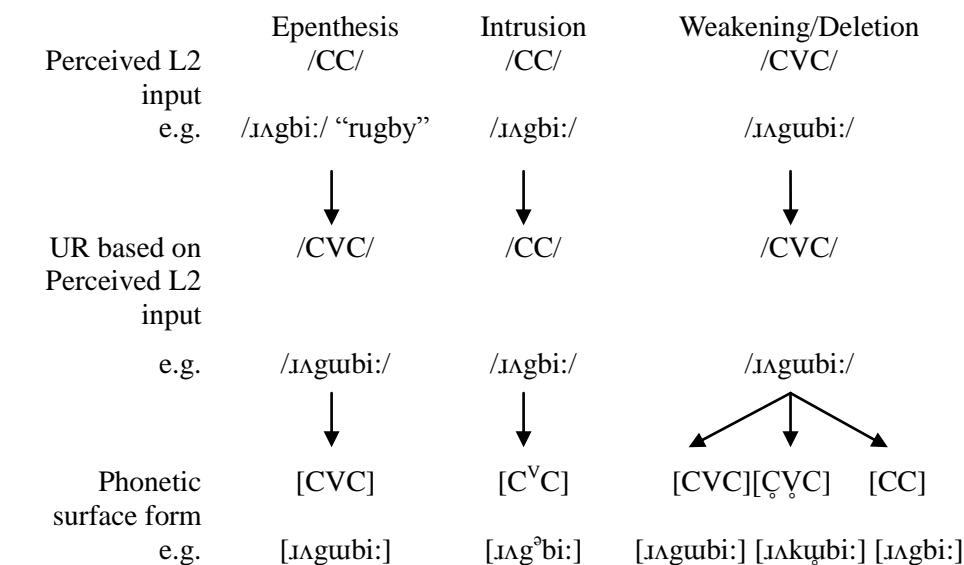


Figure 1. Epenthesis, intrusion, and weakening/deletion by L2 learners.

My participants' process was 'Weakening/Deletion'; the participants started from /CVC/ which could end up with [CVC] with a full vowel, [C̥VC] (or [C̥^hC]) with a voiceless vowel, [CC] with release of the first consonant, or [C̥^hC] without release or the target-like cluster, by phonetically adjusting the vowel. These alternations are considered as free allophonic variations. Japanese ESL learners incorrectly assume that there is a vowel in the first place, which causes vowel insertion despite their ability to produce consonant clusters. Examples of the participants' vowel alternations are shown in Figure 2 to 5.

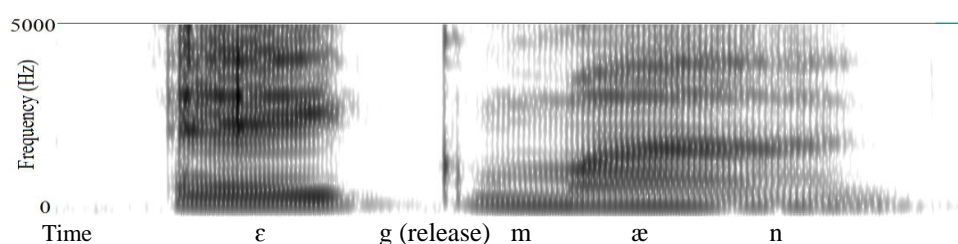


Figure 2. "eggman" with release produced by P5 in the mimicking task

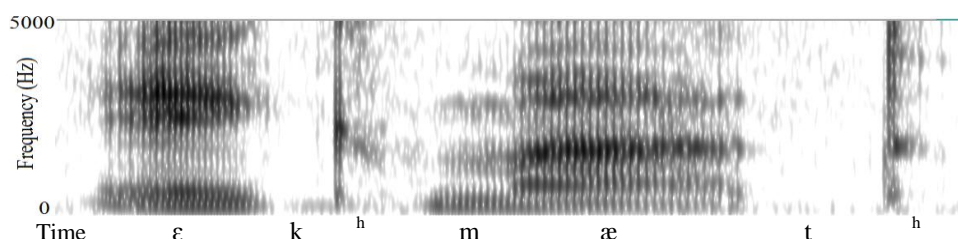


Figure 3. "egmad" with aspiration produced by P4 in the mimicking task

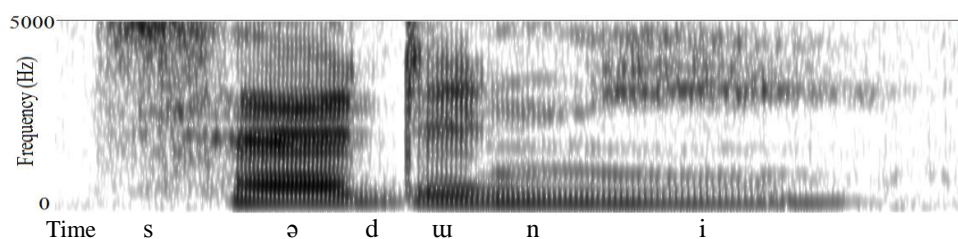


Figure 4. "Sydney" with clear [u] insertion produced by P3 in the reading task

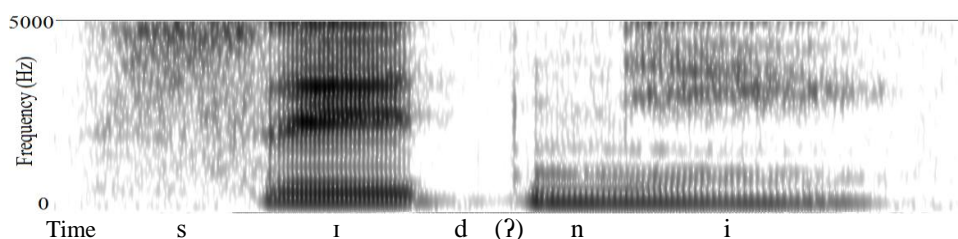


Figure 5. "Sydney" with no vowel insertion produced by P3 in the mimicking task

4 Conclusion

Despite a relatively short length of residence, all the Japanese participants perceived and produced English consonant clusters at the phonetic level. However, at least seven of my participants misinterpreted that there was a vowel where there was actually not: e.g. they assumed that ‘badminton’ was supposed to be ‘badominton’. This misconception is considered to come from a lack of formal instruction of English syllabification and basic symbol-sound correspondence rules. Due to a lack of explicit knowledge, they may have developed their own system and considered English alphabet as abugida in which each consonant letter has a default vowel. This causes their vowel insertion in consonant clusters. At the phonetic level, in order to imitate native English speakers’ production, they weakened or deleted a vowel that existed in the first place in their own English phonological interpretation. Such vowel weakening/deletion was free allophonic variations, but did not function phonemically, which was the real problem for those Japanese ESL learners. In short, Japanese ESL learners know *how* to pronounce consonant clusters, but do not know *when* to pronounce them. For future studies, it is necessary to design formal instruction for helping Japanese ESL learners *understand* (not articulate and perceive) English consonant clusters and syllabification.

Acknowledgements

I am grateful to Dr. Ewa Czaykowska-Higgins for her guidance in this study and expertise in phonology, and to my colleague, Yanan Fan, for her creative ideas.

References

- Coulmas, S. (2003). *Writing System*. New York: Cambridge University Press.
- Dehaene-Lambertz, G., Dupoux, E. & Gout, A. (2000). Electrophysiological correlates of phonological processing: A cross-linguistic study. *Journal of Cognitive Neuroscience*, 12(4), 635.
- Davidson, L., & Stone, M. (2004). Epenthesis Versus Gestural Mistiming in Consonant Cluster Production: An Ultrasound Study. In G. Garding & M. Tsujimura (eds.), *WCCFL 22 Proceedings*. Cambridge, MA: Cascadilla Press, 165-178.
- Funatsu, S., Imaizumi, S., Fujimoto, A., Hashizume, M., & Kurisu, K. (2008). Do Japanese speakers perceive nonexistent vowels in non-native consonant clusters?. *The Journal of the Acoustical Society of America*, 123(5), 3072.

- Goad, H. & Kang, H. (2003). Word-final syllabification in L2 acquisition with emphasis on Korean learners of English. In Juana M. Liceras, Helmut Zobl & Helen Goodluck (eds.) *Proceedings of the 6th Generative Approaches to Second Language Acquisition Conference*. Somerville, Mass.: Cascadia Press. 122–129.
- Hall, N. (2006). Cross-linguistic patterns of vowel intrusion. *Phonology* 23. The United Kingdom: Cambridge University Press. 387–429.
- Nogita, A. (2010). *Is [si] really problematic?: Examination of the [si] and [fi] confusion by Japanese ESL learners*. Saarbrücken, Germany: VDM Verlag.
- Strange, W., Akahane-Yamada, R., Kubo, R., Nishi, K., & Trent-Brown, S. (2008). Acoustic and perceptual similarity of Japanese and American English vowels. *The journal of the Acoustical Society of America*, 124(1), 576–588.
- Tsuzuki, M. (1996). An allophonic study of Japanese vowels and consonants. *The Journal of Aichi Gakuin University. Humanities & sciences*, 43(2), 41–66.
- Vance, T. J. (2008). *The sound of Japanese*. New York: Cambridge University Press.
- Urbanczyk, S. (1996). *Patterns of Reduplication in Lushootseed*. Ph.D. dissertation, University of Massachusetts.
- Ueyama, M. (2003). Awareness of L2 syllable structure: The case of L2 Japanese and L2 English. *Journal of the Phonetic Society of Japan*, 7(2), 84–100.

Non-derivational approach to ditransitive constructions in MSA

Reem Alsadoon
Simon Fraser University

In 2002, Harley adopted the non-derivational approach in analyzing English double objects construction (DOC) and double complement (DC). This paper aims to apply the same approach to Modern Standard Arabic (MSA) ditransitive structures. The following is an example of such a structure in MSA:

- (1) a. ʔaʕta al-muʕlam-u al-taalib-a kitaab-an
Gave-3ms the-teacher-nom the-student-acc book-acc
‘The teacher gave the student a book’
- b. ʔaʕta al-muʕlam-u kitaab-an li al-taalib-i
Gave3ms the-teacher-nom book-acc Dat prep the-student-gen
‘The teacher gave a book to the student’

In this paper, I argue for Harley’s non-derivational approach to DOC and DC in MSA. Harley proposes that DOC and DC constructions have different underlying representations. The DOC construction has an abstract verb head CAUSE which takes a prepositional possessive structure headed by an abstract possessive preposition, *Phave*. The DC has the same CAUSE head but here it takes a prepositional locative structure headed by an abstract locative preposition, *Ploc*.

The paper shows that Harley’s approach can be applied to MSA DC and DOC constructions without any problems. I applied the same analyses used in Harley’s paper for English DC and DOC which include animacy restriction, the inability of idioms to shift from a DOC to DC, and the asymmetric c-command relationships. The results of my analysis support the use of this approach in MSA.

Keywords: Syntax, Ditransitive constructions, Modern Standard Arabic (MSA), and Non-derivational approach.

1 Introduction

The paper is divided into four sections. First, I will provide a brief overview of MSA ditransitive structure. Second, I will present the main point of Harley’s approach. Third, I will discuss the applicability of her approach to MSA. Finally,

I will conclude by summarizing my findings and offer suggestions for further research.

2 MSA Ditransitive Structure

MSA is the formal official standard form of Arabic for all Arab countries. It is used as a major medium of communication for public speaking and broadcasting. It is a mark of prestige, education, and social standing. MSA enjoys a great deal of freedom in word order because its rich inflectional morphology allows permutations of its constituents: SVO, VOS, OVS, and VSO. However, the basic word order is VSO (Ryding, 2009). For the analysis of DC and DOC, word order is important for two issues: case marking and asymmetric relationships. Ditransitive structures usually appear in two word orders: SVO or VSO. Thus, the ditransitive verb, in addition to having a subject, takes two objects: direct and indirect object. They follow the verb or any mentioned subject according to the sentence word order.

The underlying order of direct and indirect object in Arabic is similar to English. Barss and Lasnik (1986) observed the asymmetric relationships in English DOC as exemplified in (1):

- (1) a. John gave Mary a letter.
 DP1 DP2
 b.* John gave a letter Mary
 DP2 DP1

The direct object (a letter) is always in the domain of the indirect object (Mary). That is, DP1 (indirect object) c-commands DP2 (direct object) but not vice versa; since a is in the domain of b, then b must be c-commanded by a. The same condition exists in Arabic as in (2).

- (2) a. Mohammed-un ʔaʕta al-taalib-a kitaab-an
 Mohammed-nom gave-3ms the student-acc (DP1) book-acc (DP2)
 ‘Mohammed gave the student a book’
 b. * Mohammed-un ʔaʕta kitaab-an al-taalib-a
 Mohammed-nom gave-3ms book-acc (NP2) the student-acc (NP1)

This asymmetric relationship is supported by the use of anaphors where the anaphors must be c-commanded by their antecedents in both MSA and English.

- (3) a. I showed Mary herself.
 b. * I showed herself Mary.

- (4) a. ʔaray-t-u Mohammed-an nafsah.
 Showed-I-nom Mohammed-acc himself.
 b. * ʔaray-t-u nafsah Mohammed-an
 Showed-I-nom himself Mohammed-acc.
 “I showed Mohammed himself”

It is also important to understand the case marking system in MSA. There are three cases in Arabic: nominative, accusative, and genitive. Table 1 shows the case markers and the grammatical conditions associated with each case. (I included only the grammatical conditions that will show up in the data of this paper. There are many different markers for other grammatical conditions.)

Table 1.

The markers and the grammatical conditions associated with each case in MSA (S= singular).

Cases	Grammatical conditions	
	Definite noun (S)	Indefinite noun (S)
Nominative	-u	-un
Accusative	-a	-an
Genitive	-i	-in

3 Theoretical Background

The English ditransitive structure has been approached by two major analyses: a) derivational analysis of the DC and DOC structure (Larson, 1988) and b) non-derivational analysis (Pesetsky, 1995; Harley, 2002). Larson (1988) proposed a derivational approach in accounting for the English ditransitive structure. He assumes that the DOC is derived from a DC construction by a process similar to that of the passive formation.

However, Larson’s approach has been found to violate some of basic views of syntactic theory, such as case assignment and the unshiftability of idioms. Harley pointed out that idioms should freely shift in both the structure of DC and DOC the way they do in a passive structure. However, it is obviously not the case as we see in example (5):

- (5) a. Mary took Felix to task.
 ‘Mary upbraided Felix’.
 b. *Mary took task Felix.

The same problem seems to appear in MSA DOC. Example (6) provides evidence that the dative structure cannot be transformed into a DOC. The

idiomatic expression (alxbz-a li alxbaz-i) cannot shift from a DC to a DOC with the same idiomatic interpretation. (6) b is actually grammatically acceptable, yet the interpretation is quite different.

- (6) a. ʔaʕta alxbz-a li alxbaz-i (DC)
 Gave-3ms the bread-acc Dat-to baker-gen
 ‘To leave the things for the people who know better’
 b. ʔaʕta alxbaz-a alxbz-a (DOC)
 Gave-3ms the baker-acc the bread-acc
 ‘He gave the baker the bread’ (non-idiomatic interpretation)

Case assignment is another problem in Larson’s approach. Larson had to justify how case is assigned to the direct object while it is in an adjunct position (i.e. a caseless position). He argues that the indirect object gets the accusative case directly from the verb after the movement of the verb up in the VP shell. The direct object receives inherent case from the verb that results from “V” reanalysis. Jackendoff (1999) criticized Larson for complicating the theory by adding extra structure. In MSA, Larson’s analysis seems to be also problematic with regards to case assignment. Case assignment in MSA is slightly different from SVO languages in general. DPs are assigned case whenever a case assigner is available, otherwise, a default nominative case is assigned to them (Ouhalla, 1994):

- (7) a. Mohammed-un Kateeb-un
 Mohammed-nom writer-nom
 b. Mohammed-un kana kateeb-an
 Mohammed-nom was writer-acc

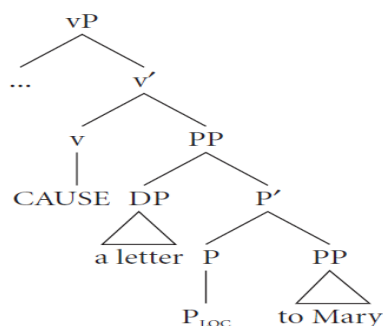
Another problem for Larson in MSA is the fact that not all ditransitive verbs allow both constructions (DO and DC). For example:

- (8) a. xala alnas-u al- batʔal-a ʔsad-an
 thought-3ms people-nom the hero-acc lion-acc
 ‘The people thought the hero a lion’
 b.* xala alnas-u al-ʔsad-a li batʔal-i
 ‘The people thought the lion is for the hero’

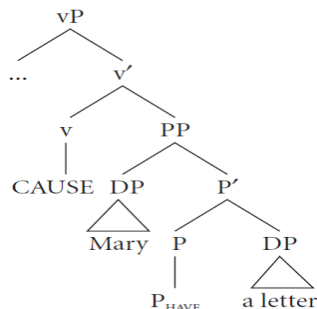
Harley’s non-derivational approach seems to provide more convincing evidence for MSA ditransitive structures. Harley proposes that DOC and DC constructions have different underlying representations. The DOC has an abstract verb head CAUSE which takes a prepositional possessive structure headed by an abstract possessive preposition, *Phave*. The DC has the same CAUSE head but here it takes a prepositional locative structure headed by an abstract locative

preposition, *P_{loc}*. The prepositional head (*Phave* & *P_{loc}*) is raised to the little *v* CAUSE and spelled out as a ditransitive verb like *send* and *give*. For theta-role assignment, the indirect object encodes the meaning of the possessor and the direct object encodes the meaning of the possessee in DOC. On the other hand, the indirect object encodes the meaning of location and the direct object encodes the meaning of the locatee in the DC construction as shown in (9).

(9) a) DC structure



b) DO structure



(Harely, 2002)

Harley's different theta-roles are supported by the animacy constraint observed in the DOC but not in the DC construction. The DC structure can shift into a DOC if the P complement is animate. However, if the complement is inanimate then it is impossible for the shifting process to occur because the possessor is required to be animate in the DOC structure as shown in (10). Therefore, only animate DPs are allowed to occur as the goal of a DOC. On the other hand, such a restriction does not exist for the location goal of a DC.

- (10) a. I sent a letter to Sue/ Boston. (DC)
 b. I sent *Boston/Sue a letter. (DOC)

Another argument that supports Harley's proposal is the syntactic asymmetries in the c-command of the direct and indirect object in DC and DOC structure. Harley's approach in fact solves a problem with the asymmetries observed by Larson's derivational approach. Larson assumed the same theta roles for the direct object and indirect object in both the DC and DOC. Harley's different theta-roles for each construction helps to solve the problem of theta-roles of the direct and indirect object in c-commanding relationships. In DOC, the indirect object (the possessor, goal) c-commands the direct object (the possessee, theme). In the DC construction, the indirect object (the locatee, theme) c-commands the direct object (the location, goal). Harely uses anaphors to test the syntactic asymmetries of the direct and indirect object in DC and DOC.

In anaphoric ditransitive structure, the first object is found to be the antecedent of the second object as demonstrated in (5). The non-derivational approach of Harley successfully accounted for these c-commanding facts in DC and DOC.

Furthermore, Harley's approach is found to be also successful in accounting for ditransitive idioms. It shows that idioms cannot freely shift between the DC and DOC as shown in (11). Harley maintains the theory of idiom-as-constituent which states that idiomatic elements form part of one constituent at some point in the derivation. At this point, all the non-idiomatic expressions are excluded from this single constituency. Accordingly, she postulated two types of idioms in the ditransitive structure: P_{HAVE} + theme and P_{LOC} + goal idioms. In DOC, the idiomatic force is established at the P_{HAVE} level (P_{HAVE} + theme) before moving the P_{HAVE} to the v CAUSE. The same happens for DC structure, where the idiomatic force is established at the P_{LOC} level (P_{LOC} + goal). Apparently, the abstract preposition in DC and DOC is different. Therefore, idioms cannot freely shift between DC and DOC.

- (11) a. I sent the salesman to the devil.
b. *I sent the devil the salesman.

Harley's approach is very interesting in accounting for other languages like Korean (Kim, 2008) and Spanish (Bleam, 2003). In the next section, I will apply this non-derivational approach to the MSA ditransitive structure.

4 Harley's Non-derivational Approach in MSA

Harley's approach seems to be applicable to the MSA ditransitive structure. To prove this claim, I will use the same analyses used by Harley for the English DC and DOC. Specifically, I will consider the animacy constraint, the asymmetric c-commanding relationships, and the unshiftability of idioms.

4.1 Animacy Constraint

MSA provides a counterexample of the English ditransitive structure in terms of animacy constraint. Example (12) shows that animacy constraint is applicable in DO structure but not in the DC structure. This animacy constraint is actually supported by the fact that P_{HAVE} encodes possessive relations for which the possessor needs to be animate whereas; P_{LOC} encodes locative relations which does not require any animacy restriction.

- (12) a. Wahaba al-sultan-u al-shaṣer-a /* al-sʔandooq-a hadiat-an
gave-3ms the-sultan-nom the-poet-acc/* the -box-acc gift-acc
'Alsultan gave the poet a gift'

- b. wahaba al-sultan-u hadiat-an li al-shaṣer-i / al-sʔandooq-i
gave-3ms the -sultan-nom gift-acc Dat-to the-poet-gen/ the -box-gen

4.2 The Asymmetric c-commanding Relationships

Harley's analysis of the asymmetric c-commanding relationships is found to be applicable in MSA ditransitive structure. She clearly demonstrated the syntactic asymmetries between the direct and indirect object in DC and DOC by the use of anaphors. As discussed in the previous section, the standard syntax theory of anaphors states that anaphors must be c-commanded by their antecedents. In the ditransitive structure, Harley argues that the first object is always the antecedent while the anaphora is the second object. This is exemplified in (3) for DOC. Also, the same restriction is found to be applied in an MSA DC structure as shown in (13).

- (13) a. ʔaxaḏa al-feloos-a li nafsah (DC)
took-3ms covert subject the-money-acc Dat-to himself
'He took the money for himself'
b. *ʔaxaḏa nafsah li al-feloos-i
took-3ms covert subject himself Dat-to the-money-gen

4.3 The Unshifability of Idioms

Another argument presented by Harley to support her non-derivational approach is the unshifability of idioms from DC to DOC and vice versa. She accounted for this fact by proposing two types of idioms in the ditransitive structure: P_{HAVE} + theme and P_{LOC} + goal idioms. The fact that the abstract preposition is different in each structure explains this unshifability of idioms. This analysis seems to perfectly fit with the MSA ditransitive idioms data as shown in (14). In (14 a) the P_{HAVE} is forming an idiomatic constituent with the theme (Moqafa-h) at the P level while in (14 b) the P_{LOC} is forming an idiomatic constituent with the goal (li ṣayoona-ha). For the unshifability of idioms, examples (6), (15), and (16) provide sufficient evidence of the existence of the same fact in the MSA ditransitive structure.

- (14) a. ʔara-na Mohammed-an Moqafa-h¹ (DO)
Showed-us Mohammed-acc back-acc- his
'to be relieved because someone you do not like left'

¹ The accusative marker (an) is not apparent here because the possessive (ha) is attached to the object.

- b. ʔaʕtʔa al-ʕbaht-a li ʕayoona-ha
gave-3ms covert S the-toy-acc Dat-to eyes-acc-her
- (15) a. Yazaid al-tʔain-a balat-an (DOC)
Add-3ms,covert S the- mud-acc wetness-acc
‘To add water to already wet mud’
b. *Yazaid al-balat-a li tʔaian-i (DC)
Add-3ms, covert S the- wetness-acc Dat-to mud-gen
- (16) a. Mashy-na shawt-an batail-an (DOC)
Walked-we match-acc wrong-acc
‘We chose to participate in the wrong place’
b. *Mashy-na batail-an li shawt-i (DC)
Walked-we wrong-acc Dat-to match-gen

In sum, the above discussion of the animacy constraint, the asymmetric c-commanding relationships, and the unshiftability of idioms in the MSA ditransitive structure seems to be compatible with Harley’s non-derivational approach. It provides another piece of evidence of the ability of this approach to cross-linguistically account for the ditransitive structure in languages other than English.

5 Conclusion

The goal of the paper is successfully achieved by arriving at the conclusion that Harley’s non-derivational approach fits perfectly with the MSA ditransitive data. In writing this paper, I discovered that MSA ditransitive structure has been rarely researched. This in fact suggests a need for more research to be conducted in this context.

References

- Alʔnsʔary, H. (1953). *The explanation of the shattered pieces of gold*. The commercial library.
- Alsʔainay , M., Abdulaziz, N., & Sullayman, M. (1992). *The dictionary of Arabic idioms*. The Libaray of Lebanon.
- Bleam, T. (2001). Properties of the Double Object Construction in Spanish. In *A Romance Perspective on Language Knowledge and Use: Selected Papers from the 31st Linguistic Symposium on Romance Languages (LSRL), Chicago, 19–22 April 2001, Current Issues in Linguistic Theory 238*, eds. Rafael Núñez-Cedeño, Luis López and Richard Cameron, 233-252. Amsterdam, Netherlands: John Benjamins.

- Harley, H. (2002). Possession and the double object construction. *Linguistic Variation Yearbook* 2, 29-68.
- Larson, R. (1988). On the double object construction. *Linguistic Inquiry* 19, 335-391.
- Kim, L. (2008). On the Ditransitive Construction in Korean”, in S. Blaho, C. Constantinescu, and E. Schoorlemmer, eds., *Proceedings of ConSOLE XV*, 111-133.
- Ouhalla, J. (1994). Verb movement and word order in SA. In verb movement. Ed. By N. Hornstein and D. Lightfoot, Editors, *Verb movement*, Cambridge Univ. Press, Cambridge.
- Ryding, K.C. (2009). *A Reference Grammar of Modern Standard Arabic* (Reference Grammars). Cambridge University Press, Cambridge UK/ New York.

The “Gradient Structure” of Korean Words*

Hailey Hyekyeong Ceong

University of Victoria

hkc@uvic.ca

Hay and Baayen (2005) propose a probabilistic analysis of Indo-European word structure in which they argue that morphological structure is non-discrete – i.e., that it is *gradient*. This paper argues for a similar “gradient structure” approach to Korean words, with a particular focus on Hannate (“Sino-Korean”) words. Hannate words are usually considered loanwords, but most of them acquire their lexical category by combining with native suffixes, as with the adjective *namca-tapta* ‘manly’. The word *namsengmi* ‘masculine beauty’ may be interpreted as a complex or a compound word, depending on the treatment of *mi*. This problem of determinability is similar to the ambiguity encountered in English neoclassical compounds (Bauer 1998). The adoption of Hannate roots into Korean eliminates the ideographic and tonal information that fixes their meanings in Chinese. This paper helps shed light on the understanding of Hannate words in Korean and explores various ways that language contact and the borrowing of words have consequences for the expanded lexicon of the borrowing language, which includes native items, borrowed items, and the products of reanalysis and analogy by speakers over time.

1 Introduction

This paper examines the structure of Korean words containing at least one root of Chinese origin. Previous literature has employed the terms ‘Sino-Korean’ to such refer to Chinese loanwords in Korean; however, I believe the term “Hannate” is more appropriate for these items. The term ‘Hannate’ parallels the term ‘Latinate’ in its usage, and therefore helps to improve terminological consistency in Linguistics. Since many Hannate words were coined in Japanese or Korean by employing Chinese roots and following Chinese word formation rules, categorizing them as loanwords may not be appropriate. Furthermore, Chinese

* I would like to thank Caitlin Keenan for proofreading this paper. The abbreviation used in this study are: GEN = genitive, LOC = locative, TOP = topic marker. The data are presented in the Yale system of Romanization which follows the morpho-phonemic spelling principles of the Korean alphabet, *Hankul*.

roots do not generally occur independently in Korean. Most Hannate words acquire their lexical category by combining with native suffixes, as with *chinhata* ‘intimate’ in (1). It is unclear whether *chinhata* belongs to Sino-Korean, in the sense of being a loanword.

(1)

Hannate root	Hannate words	Hankul	Chinese character
chin	chinkwu ‘friend’	친구	親舊
	chincel-han ‘kind’	친절한	親切
	chin-hata	친-하다	親
	‘intimate’		

The presence of *han* 漢 in all words related to Chinese characters (Chinese roots) suggests that the term “Hannate” is better than Sino-Korean. Consider: *Gudai hanyu* ‘classic Chinese’, *hanzi* ‘Chinese character’ in Chinese, and *hanmwun* ‘Chinese writing’, *hanca* ‘Chinese character’, and *hancae* ‘Hannate words’ in Korean. By contrast, the prefix *Sino* is used to refer to China in general, and it thus may refer to any one of fifty-six ethnic groups who speak different mother tongues. Chinese roots in Korean and Japanese come exclusively from languages of Han Chinese.

The purpose of this paper is twofold. First, I would like to apply a new approach to the analysis of the structure of Hannate words by exploring the hypothesis that “morphological structure is intrinsically gradient and has probabilistic structure” (Hay & Baayen 2005). This approach resists deterministic, discrete non-probabilistic approaches to the internal structure of words, and views morphological structure as structure that emerges from the regularities that identify the forms and meanings of words. My examination of Hannate words supports the probabilistic view of the internal structure of words and claim that the morphological structure of Korean is indeed ‘gradient’. A root is identified as Hannate if its Korean alphabetic form can be replaced by a Chinese character (*Hanca*) and this character is indicated in the Korean dictionary: For example, the entry for *chinkwu* ‘friend’ in Korean dictionaries is “친구 (親舊). 명. 오랫동안 가까이 사귀어 온 벗. [friend. noun. ‘an intimate mate you have known for a long time]’ (translation by the author)”. Like Latinate roots in English, the Hannate roots which make up 60% of the Korean lexicon are problematic for morpheme-based analyses. How do we account for non-native morphemes that may or may not be analyzable to all speakers in the borrowing language? How do we account for non-native morphemes that may be analyzable in certain contexts, but are not necessarily analyzable in other contexts? The definition of the morpheme as “the smallest individually meaningful element in

the utterances of a language” (Hockett 1958, cited in Aronoff 1981) is problematic for analyzing the internal structure of Korean words.

The first part of this paper shows the paradigmatic relation between Korean words of similar form and meaning. In the latter part of the paper, I will develop a three-dimensional space for forming Korean words in the framework of Bauer (1998). Hannate words, as shown in (1) above, are neither completely loanwords nor entirely native words, neither compounds nor derivatives. Hannate words pose the same problem in Korean as neoclassical compounds do in English; Bauer claims that it is difficult to determine whether a neoclassical root is an affix or a compound element, and thus whether the complete word is a derivative or a compound. Some monosyllabic Hannate roots are words, but most of them are not. Hannate roots can be words or bound morphemes which may or may not contain the full meaning of a true morpheme in Korean. Usually a combined form of two or more roots is a word, but it is not the case that all constituent morphemes contribute meaning to the meaning of the whole word. Moreover, except for nouns, all Hannate roots or combined root forms are assigned their grammatical category by native suffixes. Therefore, when Hannate words are taken into account, we see that Korean words have a fuzzy boundary, just like English word do (Bauer 1998). The present study shows the benefits of adopting a three-dimensional space for forming Korean words rather than separating them categorically into simple or complex, native word or loanword.

2 Fuzzy Boundaries of Hannate Words

Analyzing the morphological structure of Hannate words is problematic in a morpheme-based approach. Identifying morphemes in Hannate words is challenging. The words in (2) can be analyzed as simple or complex words. The Hannate roots *in*, *nam*, and *seng* are not words in Korean, but each root can indicate the meaning, ‘person’, ‘male’, and ‘voice’ respectively if it is written in Chinese characters.

- | | | |
|-----|------------------|---------------|
| (2) | a. <i>miin</i> | ‘the beauty’ |
| | b. <i>minam</i> | ‘handsome’ |
| | c. <i>miseng</i> | ‘sweet voice’ |

While *mi* in (2) looks like a prefix or base, *mi* in (3) looks like suffix. *namseng* ‘male’ in (3b) is a word, but *kak*, *kaksen*, and *senmi* are not words; only *sen* ‘line’ and *kaksenmi* are words. It is plausible to analyze *mi* as a suffix, but it is impossible to analyze *kak* as a prefix. There are two homophonous prefixes *kak*- ‘each’ and *kak*- ‘square’ which are irrelevant to the whole meaning of word, as in *kaksenmi* ‘the beauty of leg line’.

- (3) a. kaksenmi 'the beauty of leg line'
 b. namsengmi 'masculine beauty'

Even though *mi* has a dictionary entry and is categorized as a noun, the root *mi* itself does not appear freely as a word, but appears only in idiomatic phrases as in (4).

- (4) a. hankwuk-uy mi Korea-GEN beauty 'the beauty of Korea'
 b. cohwa-uy mi harmony-GEN beauty 'the beauty of harmony'
 c. yucong-uy mi round off-GEN beauty 'crowning glory'
 d. cayen-uy mi nature-GEN beauty 'the beauty of nature'

The native adjective *alumtaun* 'beautiful' modifies a native word like *moksoli* 'voice' or a Hannate word *yein* 'woman' as in (5), whereas the Hannate root *mi* cannot be used in this context, as exemplified in (6). Koreans say *kunyeuy alumtaum* 'the beauty of you' but do not utter *kunyeuy mi*.

- | | | | |
|-----|--------------|------------------|-------------------|
| (5) | Hannate word | Korean phrase | glossary |
| | a. miin | alumtaun yein | 'beautiful woman' |
| | b. miseng | alumtaun moksoli | 'beautiful voice' |
- (6) na-nun kunye-uy alumtaum/*mi-e panha-ss-ta.
 I-TOP her-GEN beauty- LOC was charmed by.
 'I was attracted by her beauty.'

In that case, is *mi* an allomorph of the native Korean adjective *alumtaun*, or are the two words synonyms? The situation is further complicated by the fact that *mi* cannot be interpreted as 'beauty' in isolation, since there are many homophones of *mi* that can signify meanings such as 'rice', 'taste', 'un-', and 'eyebrow'.

3 Paradigmatic Lexical Relations of Hannate Words

Hay and Baayen (2005) exploit the paradigmatic lexical relationship between inflectional paradigms and morphological families in English to claim that morphological structure emerges from the regularities that identify the forms and meanings of words. I apply this approach to Hannate words containing *mi* 'beautiful' to show the similarity of form and meaning in words which share the same roots. The properties of *mi* were presented in section two. Korean speakers who have not learned the meaning of the Hannate root may generalize *mi* as 'beautiful' from the parallels within the word group, since *mi* is a free root in the particular context discussed in (4). The other combining roots *in* 'person', *nye* 'female', and *nam* 'male' also obtain meaning from words containing the same roots as in figure 1.

However, not all internal structures of Hannate words are transparent. Often there is no large paradigm to facilitate a speaker's learning of the meaning of a root, as for instance for the root *kak* 'leg' in *kaksenmi*. The Hannate roots *kak* 'leg' is not a free root in Korean, and *kak* does not exist in a paradigm with many other words of similar form and meaning. Therefore, the meaning of *kak* 'leg' and the internal structure of words that contain *kak* probably will not emerge from the paradigm.

sangin	miin	sengin
'merchant'	'the beauty'	'adult'
chwunye	minye	swuknye
'ugly woman'	'the beauty'	'lady'
chwunam	minam	namca
'ungly man'	'handsome'	'man'
sengakka	miseng	umseng
'vocalist'	'sweet voice'	'voice'
tamhwa	mitam	sangtam
'talk'	'praiseworthy anecdote'	'consultation'
namseng	namsengmi	namsenghwa
'male'	'masculine beauty'	'virilism'
*kaksen	kaksenmi	sen
*kak	'the beauty of leg line'	'line'
	hankwuk-uy mi	hankwuk
	'the beauty of Korea'	'Korea'
?mi		

Figure 1. Examples of paradigmatic lexical relations of Hannate words in Korean. The meaning of root *mi* 'beautiful' is consistently shared in its paradigm; colours show how each root connects to words.

Another example is the Hannate word *sakwa* 'apple'. The meaning of *kwa* is transparent in Korean since there is a word family constructed from the paradigm, containing forms such as *kwa'il* 'fruit' and *kwawuwen* 'fruit farm'. However, the meaning of *sa* is not transparent since there is no word family that shows the meaning of *sa*. Hay (2001) discusses the relationship between the transparent meaning of prefixed words and the base word in the context of "relative frequency". The fact that *kak* 'leg' and *sa* 'sand' are not free roots in Korean implies that the meaning of combined forms are more transparent than the meaning of roots. In addition, if a combined word has shifted or proliferated in meaning and thus is not transparent, then the meaning of its component parts will not be easily defined by referring to the combined form. An example of this

is the word *kakpon* 'script', the meaning of which is not obviously derivable from *kak* 'leg' or *pon* 'original; model'. In addition to a root being obligatorily bound, its form and meaning may not be shared in a large paradigm and its meaning may not be consistently shared.

In the next section I will develop a three-dimensional space for forming Korean words in the framework of Bauer (1998).

4 Dimensional Space for Word Formation

Bauer (1998) proposes a three-dimensional space for English word formation: a simple-compound dimension, a native-foreign dimension and an abbreviated-non abbreviated dimension. Bauer observes that some word types in English do not fit easily into a specific category; for example, it is difficult to determine whether neoclassical compounds are derivatives or compounds. This study applies Bauer's three-dimensional space to Korean word formation.

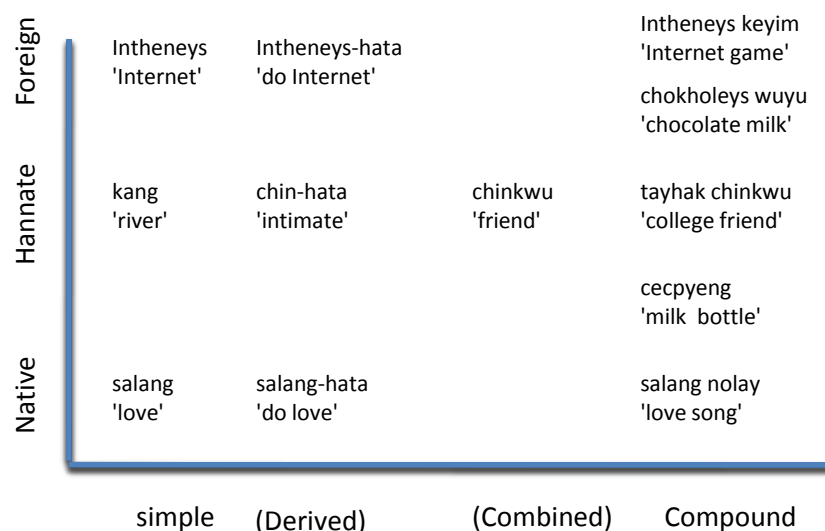


Figure 2. A two-dimensional matrix for Korean

I modify Bauer's proposed dimensional spaces slightly to suit Korean word formation. First, Korean needs three etymological spaces: Hannate, foreign loanword, and native. The native and loanword spaces sit at the edges of the dimension, and the Hannate word sits in the middle. The reason for this

modification is that foreign loanwords from modern Indo-European languages and native words are very different from Hannate words morphologically and phonologically (Cho 1999).

A second dimension along which Bauer distinguishes formation types is the traditional one of compound versus affixed versus simplex word: “Simplex words are un-analyzable. Derivatives are analyzable, but one of the elements involved is not a potential stem in English” (p.410). In figure 2, *salang* is a simple native word, *kang* is a simple Hannate word, and *inteneys* is a simple foreign word. The simple words become bases for the verbal suffix *-hata* ‘do/be’: *salang-hata*, *chin-hata* and *inteneys-hata* are derived words. Words with Hannate bases but native Korean suffixes compromises between native and Hannate derivatives in the dimensional space; these words are neither loanwords nor native words. This paper adopts the term ‘combining form’ (Bauer 1983) for a root that has a Hannate constituent and consists of more than two roots in Korean. The majority of Hannate nouns and bases are formed by combining two or more roots: *chinkwu* ‘friend’; *min* ‘the beauty’; *minam* ‘handsome’. The combined forms are words; the combining forms are not words but bear particular affixal properties. Sohn (1999) categorizes the affixal combining form as a prefix or suffix, but the terms prefix and suffix are problematic for analyzing Hannate words in the same way that these terms are problematic for Neoclassical compounds such as *aerophobe*, *epitope*, and *lysosome* (Cannon 1992, cited in Baeskow 2004): two affixes alone can form a word. Compounding is a very productive word-formation process in Korean. Two simple words or two combined Hannate words coin compounds in Figure 2: *salang ssawum*, *tayhak chinkwu*, and *inteneys keyim* are example of native, Hannate, and Foreign compounds, respectively. There are compounds coined with native and Hannate words, and with foreign loanwords and Hannate words. For example, *wuyu* ‘milk’ is a Hannate word, *milkhu* ‘milk’ is a foreign loanword, and *cec* ‘milk’ is native. The compound word *chokholeys wuyu* ‘chocolate milk’ consists of the loanword and the Hannate word; the compound word *cecpyeng* consists of the native *cec* ‘milk’ and the Hannate word *pyeng* ‘bottle’. These compounds sit at the interface between each dimensional space. We have seen in section two that the boundary between complex nouns and compounds in Korean is not straightforward. Hence we need graded structure from simple to compound along one axis when we draw a matrix graph.

Bauer suggests a third dimension, abbreviated versus non-abbreviated, because some neoclassical compounds fail to be taken into account in the previous two dimensions. This occurs when at least one of the elements is clipped: *heli-tele* ‘TV or video camera mounted on a helicopter’ (p. 411). However, Hannate words are mostly monosyllabic or disyllabic and Korean employs syllabic writing, so words in Korean are abbreviated using the initial syllable (or, rarely, the final syllable) rather than the initial letter. Therefore,

abbreviation is productive in compounds but not in simple and combining words. Combining and compounding are probably the most productive word creation spaces for forming a word with Hannate roots in Korean.

Up to now, I have demonstrated that Bauer's analysis of neoclassical compounds in English can be applied to understand the non-discrete structure of Hannate words in Korean. The point is that there are many intermediate stages on all three dimensions and that Hannate words occupy an area of dimensional space rather than a clear-cut category of Sino-Korean loanwords, as claimed by previous linguists. This section concludes with the table below that demonstrates five cells that arise from the intersection of the three dimensions. Native and foreign loanwords have been excluded from this table, as they are not the subjects of this paper.

Table 1.
Two-dimensional space for forming Hannate words

Type			Example		
Hannate	Simple	Full	kan 'liver'	kang 'river'	kum 'gold'
Hannate	Derived	Full	pyun-hata 'change'	chin-hata 'intimate'	
Hannate	Combined	Full	chinkwu 'friend'	miin 'the beauty'	namca 'man'
Hannate	Compound	Full	dayhak chinkwu 'college friend'	kaceng kyoyuk 'home discipline'	
Hannate	Compound	Abbreviated	noco (notong cohap) 'labor union', hankwuk (tay hanminkwuk) 'Korea'		

5 Conclusion

In this paper I have demonstrated that Hannate words in Korean should be analyzed as having gradient structure. Two approaches, Bauer (1998) and Hay & Baayen (2005), have helped to shed a lot of light on the issues that arise in understanding the internal structure of Hannate words. The three-dimensional space approach shows that we need to adopt a dimensional description of Hannate forms rather than assigning words to discrete categories. The paradigmatic lexical relation of Hannate words which I have developed in this paper is based on the approach proposed by Hay and Baayen, and shows how the meanings of Hannate forms emerge from a paradigm of similar forms and meanings.

References

- Aronoff, M. (1981). *Word Formation in Generative Grammar*. Massachusetts: The MIT Press.
- Baeskow, H. (2004). *Lexical properties of selected non-native morphemes of English*. Tübingen: Gunter Narr Verlag Tübingen.
- Bauer, L. (1983). *English word-formation*. Cambridge: Cambridge University Press.
- Bauer, L. (1998). Is there a class of neoclassical compounds, and if so is it productive? *Linguistics* 36(3) 403- 422.
- Cho, Y. (1999). Language change and the phonological lexicon of Korean. *Historical linguistics 1999: selected papers from the 14th international conference on historical linguistics, Vancouver, 9-13 August 1999*.
- Hay, J. (2001). Lexical frequency in morphology: is everything is relative? *Linguistics* 39. 1041-1070.
- Hay, J. & Baayen. H. (2005). Shifting paradigms: gradient structure in morphology. *Trends in Cognitive Sciences* 9. 7. 343-348.
- Sohn, H. (1999). *The Korean language*. Cambridge: Cambridge University Press.

Plural marking in Turkish: Additive or associative?

Emrah Görgülü

Simon Fraser University

ega5@sfu.ca

In this paper I investigate the syntactic and semantic properties of the additive/regular plural marker and associative plural marker *-lar* in Turkish. I propose that they are in fact different from each other in terms of their syntax and semantics although they share the same surface form in the language.

Turkish has a plural marker *-lar* which basically attaches to nouns and pluralizes their reference. In addition, *-lar* can also give rise to a reading in which pluralized proper names and kinship terms denote either family or company (cf. Sebüktekin (1971) and Göksel and Kerslake (2005)). I argue here that despite their surface resemblance, these two plural markers are distinct both syntactically and semantically in the sense that the former is additive while the latter is associative. When a pluralized noun appears in a genitive construction, the plural marker comes before the possessive suffix. On the other hand, when a proper name appears with the plural in the same construction, the plural marker comes after the possessive suffix. Moreover, the additive plural induces both collective and distributive interpretations whereas the associative plural *-lar* gives rise to only the collective reading. Based on these facts, I argue that the additive and associative plural *-lar* head different functional categories and are interpreted differently. Following Ritter (1991), I assume that the additive plural is the head of the functional category NUMP. It turns nominal predicates denoting singularities into predicates denoting pluralities. On the other hand, the associative plural heads a different category, namely, GRP (cf. Nakanishi and Ritter (2008)) and gives rise to some sort of a group reading whose reference contains a focal referent and some other individual(s).

1 Introduction

The main objective of this paper is to investigate the syntactic and semantic properties of the additive (i.e. regular) marker and the associative plural marker in Turkish, both of which have the same morphological form *-lar* in the language.¹ When we consider plural marking, we observe that there are a number of descriptive studies in the literature including Lewis (1967), Sebüktekin (1971) and Göksel and Kerslake (2005), among others, in which the plural marker and its various functions have been investigated. However, there is yet no analysis in

¹ The vowel of the plural suffix is subject to vowel harmony. It can appear as [-ler] or [-lar] depending on the vowel preceding it.

which a formal account has been proposed in order to explain the true nature of the plural marking in the language. In this paper, I aim to analyze its syntactic and semantic properties. An analysis of various contexts with -lAr marking suggests the existence of two plural markers in the language. More specifically, I argue that these two plural markers differ from each other in terms of their syntax and semantics even though they are morphologically identical. Following the convention, I will call the regular plural marker *the additive plural* and the group inducing marker *the associative plural*. I will argue that the former heads a functional category which I call NUM *a la* Ritter (1991). Semantically, this marker denotes sets of pluralities excluding atoms/singularities (c.f. Chierchia 1998, 2003) and gives rise to the ordinary plural reading in those constructions in which it appears. On the other hand, the latter heads a different functional head, namely GRP (c.f. Nakanishi and Ritter 2009). The associative plural marker has a different semantics in that it yields some sort of a group reading rather than ordinary plural interpretation.

The structure of this paper is as follows. In Section 2, I will briefly discuss the properties of nominals in terms number as well as various *functions* of -lAr in the language. In Section 3, I will analyze the additive and associative plural marker in terms of their semantic behavior. An analysis of structures in which these markers appear will lead to the conclusion that these markers give rise to differences in terms of how nouns that they attach to are interpreted. In Section 4, I will introduce my proposal and argue that the different syntactic and semantic behavior of these two identical markers is accounted for assuming that they each head a different functional category and are associated with a different meaning in the structures in which they appear. Section 5 briefly concludes the paper with suggestions for further research.

2 The Issues

2.1 Common nouns and number in Turkish

Bare common nouns in Turkish are often argued to have *general number* or are *number-neutral* (cf. Schroeder 1999). What this means is that a bare noun is not specified for number in the language. This is illustrated in (1a) and (2a) below. On the other hand, when a noun co-occurs with the indefinite article *bir* ‘one’, which is a numeral in the language, it is obligatorily interpreted as singular, as shown in (1b) and (2b). Finally, when a noun appears with the plural marker -lAr, the reading the noun is assigned is obligatorily plural. This is shown in (1c) and (2c) below.

- | | | |
|---------------------------|-------------------------|------------------------|
| (1) a. çocuk
kid/kids | b. bir çocuk
one kid | c. çocuk-lar
kid-PL |
| (2) a. ev
house/houses | b. bir ev
one house | c. ev-ler
house-PL |

The examples above show that common nouns in Turkish do not have any number specification in their bare form in the sense that they are *number-neutral*. In contrast to this, when a noun combines with the plural marker, it necessarily refers to pluralities. In this sense, -lAr seems to be the regular plural marker just like the plural suffix -s in English. However, it should be noted that -lAr can give rise to different readings in the constructions in which it appears. The next section discusses these environments and different interpretations that -lAr leads to.

2.2 -lAr and its various functions

The behavior of the marker -lAr is somewhat interesting in the language. When we consider, say, kinship terms such as *teyze* ‘aunt’ or *abi* ‘brother’ in genitive constructions, we see that the plural marker appears *before* the possessive suffix. This is illustrated in (3).

- | | |
|---|---|
| (3) a. Teyze- <i>ler</i> -im
aunt-PL-1SG
‘My aunts’ | b. Abi- <i>ler</i> -im
brother-PL-1SG
‘My brothers’ |
|---|---|

This behavior of the plural marker has been previously noted by others such as Lewis (1967:26), Sebüktekin (1971:98-99) and Göksel and Kerslake (2005:169). What is important here is that the nominal in (3a) refers to a set of individuals and each of them qualifies as aunts. The same is also true for the nominal in (3b) which only refers to individuals who are brothers. That is to say, the nominals above denote a homogeneous set in that sense. What is also interesting is that the same plural marker can also be attached to proper names and gives rise to the regular plural reading. Consider (4).

- (4) Ahmet-*ler*
Ahmet-PL
‘Ahmets’ (two or more people by the same name)

What (4) indicates is that the plural marker can attach to proper names in Turkish and gives rise to the regular plural interpretation. There is also another reading that the proper name in (4) is associated with and it will be discussed in the subsequent sections.

It has also been noted in the literature (cf. Lewis (1967:26), Sebüktekin (1971:98-99) and Göksel and Kerslake (2005:169)) that the same plural marker has a different function in the language. Concretely, -lAr attaches to kinship terms and proper names just like the ones observed in (3) and (4). However, the difference between the two is that the plural marker comes *after* the possessive suffix as in (5) when the noun is a kinship term. More importantly, the reading that these nouns have is quite different from the ones discussed above.

- (5) a. Teyze-m-*ler*
 aunt-1SG-PL
 ‘My aunt and her family / associates / friends’
- b. Abi-m-*ler*
 brother-1SG-PL
 ‘My brother and his family / associates / friends’
- (6) Ahmet-*ler*
 Ahmet-PL
 ‘Ahmet’s family or company or group’

In order to account for the different behavior of the plural marker in the language, namely the difference between (3)/(4) on the one hand, and (5)/(6) on the other, it has previously been suggested that -lAr marking has more than one function in Turkish. For instance, Lewis (1967:26) argues that personal names may be used in the plural like ‘the Joneses’ to refer to family. Sebüktekin (1971:98-99) notes that one of the functions of the plural morpheme in Turkish is to refer to the home, family, company represented by the nominal. More recently, Göksel and Kerslake (2005:169) state that another function of -lAr attached to the name of a person is to produce an expression referring to the group associated with that person. The same usage can also occur with the expressions of relationship.

As can be noted, the analyses referred to above have showed that -lAr has various functions in the language since it marks nominals as plural as well as a group. However, there is not yet any study that seems to have come up with an analysis in which the plural markers should be considered different from each other in (3) and (5) because of the fact that their syntactic position and their semantic contribution to the meaning of the structure are quite different. It appears that the true nature of -lAr marking in these cases should be investigated and the apparent syntactic and semantic distinctions need to be explicated. Based on new data, I will argue that the different syntactic and semantic behavior of -lAr in each case stems from the fact that they are distinct elements even though they have the same morphological form. Following the convention, I will call the regular plural marker *additive* and the group inducing marker *associative*. In the next section, I will discuss certain differences with respect to the reading they lead to.

3 The distinctions between the *additive* and *associative* plural

3.1 Interpretational differences

When we look at the two types of plurality in the language, we see that there are certain distinctions between them. For instance, the additive plural gives rise to both the *collective* and *distributive* reading whereas the associative plural yields

only the *collective* reading. The examples in (7a) and (8a) show the additive plural reading while those in (7b) and (8b) illustrate the associative plural reading. Following Moravcsik (2003), I argue that the associative plural gives rise to some sort of a *group* reading that includes a *focal referent* and his/her *family* or *friends* or *associates*, depending on the context.

- (7) a. Teyze-*ler*-im çık-tı.
 aunt-PL-1SG leave-PAST
 ‘My aunts left.’
 (i) My aunts left together (collective)
 (ii) My aunts left at different times (distributive)
- b. Teyze-m-*ler* çık-tı.
 aunt-1SG-PL leave-PAST
 ‘My aunt and her family / friends / associates left.’
 (i) My aunt and her family / friends / associates left together. (collective)
 (ii) *My aunt and her family / friends / associates left at different times. (distributive)
- (8) a. Abi-*ler*-im Ankara-ya git-ti.
 brother-PL-1SG Ankara-DAT go-PAST
 ‘My brothers went to Ankara.’
 (i) My brothers went to Ankara together. (collective)
 (ii) My brothers went to Ankara at different times. (distributive)
- b. Abi-m-*ler* Ankara-ya git-ti.
 brother-1SG-PL Ankara-DAT go-PAST
 ‘My brother and his family / friends / associates went to Ankara.’
 (i) My brother and his family / friends / associates went to Ankara together. (collective)
 (ii) *My brother and his family / associates went to Ankara at different times.’ (distributive)

The data in (7) and (8) show that both the collective and distributive readings are available with the additive plural. On the other hand, only the collective reading is possible with the associative plural. This is expected given that the associative plural marks a set of individuals as a group.

It was noted in (4) and (6) that when a proper name co-occurs with -lAr, it is ambiguous between the additive and associative plural readings. Interestingly, the additive plural yields both the collective and distributive interpretations whereas the only reading which is available with the associative plural is the collective one. Consider the examples below.

- (9) a. Ahmet-*ler* biz-e gel-di.
 Ahmet-PL we-DAT come-PAST
 ‘Two or more people named Ahmet came to us.’ (Additive Plural)
 (i) Two or more people named Ahmet came to us together. (collective)
 (ii) Two or more people named Ahmet came to us separately.
 (distributive)
- b. Ahmet-*ler* biz-e gel-di.
 Ahmet-PL we-DAT come-PAST
 ‘Ahmet and his family / friends / associates came to us.’ (Associative Plural)
 (i) Ahmet and his family / friends / associates came to us together.
 (collective)
 (ii) *Ahmet and his family / friends / associates came to us at different times. (distributive)

The behavior of the noun *Ahmet* in (9) can be captured in a straightforward manner assuming that it combines with the additive plural in (9a) and with the associative plural in (9b). It should also be noted that the associative plural gives rise to a more restricted interpretation in which only the collective reading is available when it combines with kinship terms and proper names. The additive plural does not behave the same way as both the collective and distributive interpretations are available with it. In the next section, I will introduce my proposal and argue that the two types of plural markers are syntactically and semantically distinct.

4 The Proposal

It was shown that the additive and associative plural -*lar* exhibit different syntax and semantics in the language. They do not appear in the same syntactic position and their contribution to meaning differ. Based on these facts, I propose that they head different functional categories and their semantic composition is different.

4.1 The Syntax and Semantics of Additive -*lar*

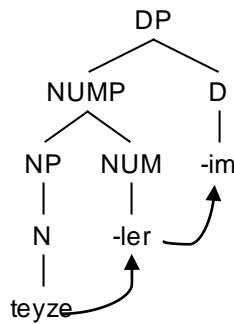
It was noted above that the syntactic position of the additive plural is not the same as that of the associative plural in genitive constructions in that the former precedes the possessive marker while the latter follows it. Consider the minimal pair below.

- (10) a. Teyze-*lar*-im
 aunt-PL-1SG
 ‘My aunts’

- b. *Teyze-m-ler*
 aunt-1SG-PL
 ‘My aunt and her family / friends / associates’

I take this as evidence that the syntactic position in which the two plurals appear is different from one another. The additive plural and the associative plural each heads a different functional category. The additive plural specifies number (i.e. plural as opposed to singular or number-neutral) and heads the functional category, NUMP, (cf. Ritter 1991) and it is the locus of the number specification. I propose the following for the additive.

(11) Additive plural



The noun *teyze* starts under NP. The intermediate category, NUMP, hosts the additive plural marker which appears as the head of the phrase. Under the additive plural reading, the plural marker is adjacent to the noun and pluralizes the individuals denoted by the nominal. In (11), the noun first moves to NUM and combines with the plural marker. Then it moves up to D along with the plural. Note also that the semantic interpretation that the additive plural is different from that of the associative plural. The meaning of the additive plural in Turkish is shown in (12a).

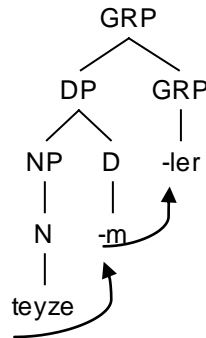
- (12) a. $[[\text{-lAr}]] = \text{For any } A \subseteq U, \text{PL}(A) = *A - A$
 b. $[[\text{teyze-ler}]] = \{a+b, a+c, b+c, a+b+c\}$

Following Chierchia (1998, 2003), I propose that (12a) is how the additive plural should be formally represented in the language. (12a) shows that the additive plural denotes sets of pluralities excluding singularities/atoms. (12b) shows that a plural noun like *teyze-ler* refers to pluralities of entities and its denotation does not include sets of singularities. Below I turn to the associative plural and discuss how it is different from the additive plural.

4.2 The Syntax and Semantics of Associative -lAr

As it was noted above the associative plural follows the possessive suffix in genitive constructions and the reading it yields is quite different from the one that the additive plural bears. I argue here that -lAr is not the head of the NUMP in this case. It seems that it must be the head of a different syntactic category with a different semantics. The associative plural gives rise to some sort of a group reading. I propose the following to illustrate the associative.

(13) Associative plural



Based on the descriptive analyses of -lAr being the marker of some sort of a *group* in Turkish (cf. Lewis, (1967), Sebüktekin (1971) and Göksel and Kerslake (2005)) and recent theoretical analyses where associative plurals are argued to share certain properties with plural pronouns (cf. Nakanishi and Ritter (2009) and Kratzer (2009)), I propose that the associative plural in Turkish heads a different functional category, namely, GRP. What is important here is that the associative plural does not pluralize the nominal it is attached to but gives rise to the *group* reading whose reference contains a *focal referent* and some other *individual(s)* associated with the focal referent. Following Nakanishi and Ritter (2009) and Kratzer (2009), I assume that the meaning of the associative plural in Turkish should be represented as in (14).

(14) $[-lAr] = \lambda x: x \text{ is human. group}(x)(c)$

(14) basically states that the associative plural -lAr attaches to a noun (i.e. either a proper name or a kinship term in Turkish) and gives rise to a group that contains the referent and their associate(s) with respect to some context.

Note also that the meaning of the associative plural in (14) is quite different from the meaning of the additive plural in (12). Assuming that the analysis proposed here is on the right track, the interpretational differences discussed in the previous sections can be accounted for straightforwardly. The associative plural yields only the collective reading since the nominal marked with the associative plural marker refers to a group of entities that behave like a

group. On the other hand, the additive plural induces both the collective and the distributive reading in that the entities denoted by the nominal can refer to a group; however, this is not necessary. In the next section, I will analyze -lAr marked proper names and show how the analysis sketched here accounts for the reason why they can be interpreted differently when they combine with -lAr.

4.3 -lAr marking and proper names

It was shown above that when a proper name combines with -lAr is ambiguous between two readings. In other words, the plural marker yields both the associative and additive plural readings. This is illustrated in (15).

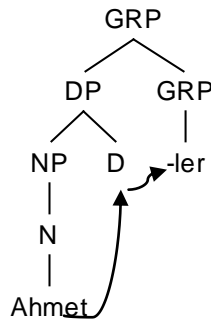
(15) Ahmet-ler

Ahmet-PL

- (i). 'Ahmet and her family / friends / associates' (Associative)
- (ii). 'Ahmet's' (two or more people by the same name) (Additive)

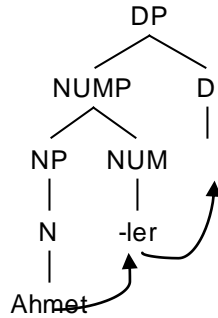
In (15) there is no possessive suffix that would otherwise specify the exact syntactic position of the plural marker in the structure. However, the reason for ambiguity can still be captured assuming that the plural marker is a different in each case. For instance, in (16) the proper name combines with the associative plural marker which in turn yields the group reading.

(16) Associative plural



With the associative plural, the proper name is interpreted as *Ahmet and his family / friends / associates*, depending on the context. I argue that the noun *Ahmet* is under NP. I assume that proper names are inherently referential and the noun first moves to D and then to GRP. The combination of the proper name and the associative -lAr yields the group reading. With the additive, the proper name starts as the head of the NP. It first moves up to the NUM which pluralizes the nominal. Then both move up to D. This is illustrated in (17).

(17) Additive



This analysis provides a straightforward account in which the reason why plural marked proper names are ambiguous is explained in a unified manner.

5 Conclusion

I have argued that there are two -lAr markers in Turkish, namely the additive and associative. The former is the regular plural marker which pluralizes nominals it attaches to. It appears with common nouns, kinship terms and proper names. On the other hand, the latter gives rise to a group reading in the sense that the nominal it appears with is interpreted as referring to a group with a focal referent. The associative plural only appears with kinship terms, proper names.

References

- Chierchia, Gennaro. (1998). Plurality of mass nouns and the notion of “semantic parameter.” In S. Rothstein (ed.) *Events and grammar*, Dordrecht: Kluwer.
- Chierchia, Gennaro. (2003). *Language, Thought and Reality after Chomsky*. Ms. Univ. of Milan.
- Göksel, Aslı., and Celia Kerslake. 2005. *Turkish: A comprehensive grammar*. London, New York : Routledge.
- Lewis, G. (1967). *Turkish Grammar*. Oxford: Oxford University Press.
- Moravcsik, Edith. (2003). A semantic analysis of associative plurals. In *Studies in Language*. 27:3 pp. 469-503. John Benjamins Publishing Company.
- Nakanishi, Kimiko. and Elizabeth Ritter. (2009). Plurality in Languages without a count-mass distinction. Paper presented in *the Mass/Count Workshop*. University of Toronto.
- Ritter, Elizabeth. (1991). Two Functional Categories in Noun Phrases: Evidence from Modern Hebrew. In *Syntax and Semantics*. Vol. 23.
- Schroeder, Christoph. (1999). *The Turkish Nominal Phrase in Spoken Discourse*. *Turcologica* 40. Wiesbaden: Harratssowitz.

Sebüktekin, Hikmet. (1971). *Turkish-English Contrastive Analysis. Turkish Morphology and Corresponding English Structures*. Mouton: The Hague, Paris.

Allomorphy in Masarak's second person

Ruth Brillman
New York University
rjb400@nyu.edu

Masarak (also known as Masalit, sometimes spelled Massaleit) is a highly endangered previously undocumented Nilo-Saharan language spoken in Darfur. The language is characterized by complicated agreement patterns, and the imperative, prohibitive and 2nd person agreement systems are particularly complex. These systems exhibit a web of stem alternations and agreement allomorphy conditioned by varying factors, such as verb class, stem phonology, and grammatical properties such as aspect. This paper provides a detailed outline of the morphology and morphophonology of Masarak's imperative, prohibitive and 2nd person systems.

1 Overview of Masarak

Masarak (exonym: Masalit) is an endangered, largely undocumented, Nilo-Saharan language spoken by the Masalit people in Darfur. Masarak is an S-O-V, agglutinating language that exhibits complex agreement properties with both the object and the subject of the verb and has a Nominative-Accusative Case alignment, as shown in (1):

- (1) a. ama tiro a-ŋoŋ-e
 1SG.NOM 3SG.ACC 1SG.SUBJ-love-PRS¹
 'I love him.'
- b. ama a-dilɛ-na
 1SG.NOM 1SG.SUB-swim-PST
 'I swam.'

1 The following abbreviations are used here: SG = singular, NOM = nominative, ACC = accusative, SUBJ = subject, PRS = present, PL = plural, PST = past, PFV = perfective, IPFV = imperfective, IMP = imperative, NEG = negation, PROH = prohibitive, CONT = continuous, 1 = 1st person, 2 = 2nd person, 3 = 3rd person. #># is used to indicate the number of subjects and objects, respectively, when -nd/-mb-, a portmanteau morpheme which indicates object agreement, is present.

2.1 The Forms of Verb Roots

Recall that Masarak verb roots take two forms, depending on aspect. Understanding root alternations is important to understanding imperative and prohibitive verb forms. In the imperative, which root is used will also predict post-stem morphology. Example (5) repeats the perfective/imperfective alternation seen in (2):

- | | | |
|-----|-------------------------------|--------------------------------|
| (5) | a. ti-ɲa:n-ari | b. ti-ɲ-eri |
| | 3SG-eat ₂ -PST.PFV | 3SG-eat ₁ -PRS.IPFV |
| | 'He had eaten.' | 'He is eating.' |

Not all Masarak verb roots alternate in the same way. Across the language, two main patterns emerge:

- (6) a. Pattern I: the final rime is dropped from the perfective root to form the imperfective.
 b. Pattern II: an imperfective stem-final /n/ alternates with a perfective stem-final /k/.

Occasionally, there is no alternation between imperfective and perfective verb roots. There are even rarer instances of verb roots which alternate according to exceptional rules of suppletion. An example of verb roots which alternate in accordance to Patterns I and II can be found in example (7).

(7) Alternation Patterns

Pattern I (rime-drop)

- | | |
|-------------------|--------------------|
| a. g-imin-a | b. g-im-i |
| 2SG-kick.PFV-PST | 2SG-kick.IPFV-PRS |
| 'You had kicked.' | 'You are kicking.' |

Pattern II (n/k alternation)

- | | |
|-------------------|-------------------|
| a. t-oin-a | b. t-oik-e |
| 3SG-pour.PFV-PST | 3SG-pour.IPFV-PRS |
| 'She had poured.' | 'She is pouring.' |

2.2 The Forms of Verb Stems

Masarak has two verb classes (which I have dubbed) G-Class and L-Class. A given verb is marked in the lexicon (or otherwise pre-syntactically) as either G-

or L-Class. Therefore, class membership is unpredictable. Verb class determines the form of the 2SG indicative, imperative, prohibitive and participial verb. Root-alternation patterns do not have a bearing on verb class.

Masarak has five total 2SG agreement allomorphs $\{/g/, /ø/, /dʒ/, /l/, \text{ and } /lV/\}$. Which allomorph will be used depends on the phonological properties of the left edge of the verb stem and verb class. The breakdown of which allomorph belongs to which verb class is as follows:

- (8) a. G-class takes $\{/dʒ/, /ø/, \text{ and } /g/\}$ ³
 b. L-class takes $\{/l/ \text{ and } /lV/\}$

L-Class verbs, when compared to the paradigm presented in (3), appear **completely regular** in that the agreement prefix only alternates between an underlying consonant ($/l/$) and the combination of that consonant with a vowel ($/lV/$). G-Class verbs do not. It is impossible to predict which allomorph will be used based on left-edge phonology alone. This is supported by evidence from causatives in Masarak. Masarak causative verbs are distinguished by the causative marker *-n-* or *-nd-*, which appears at the left edge of the verb stem, following agreement prefixes⁴. Example (14) shows a (near) minimal pair which proves that more than left-edge stem phonology is needed in determining the shape of the agreement prefix for Masarak verbs. Note that *-rinan-* takes its agreement prefix, $/ø/$, from the G-Class set, while *-riniŋ-* takes its agreement morpheme, $/l\alpha/$, from the L-Class set. Example (14) shows the shape of a Masarak causative verb. Note that the causative verb contains the additional morpheme, *-n-*, directly following the verb root, *-osiŋ-*.

- (9) a. $\underline{\emptyset}$ -rinan-a b. $\underline{l\alpha}$ -riniŋ-a
 2SG-say-PST 2SG-sleep-PST

3 The seemingly unrelated phonemes $/dʒ/, /ø/, \text{ and } /g/$ are related (I believe) in the following way:

Masarak phonology does not allow for complex consonant clusters, and, unlike all other agreement morphemes, I do not believe the G-Class 2SG morphemes have an underlying vowel. When the stem starts with a vowel, this is not a problem, and the underlying $/g/$ can be added without forcing the root to undergo phonological change. When the stem begins with a consonant, the underlying $/g/$ is eliminated completely, to prevent the realization of an ungrammatical $*gC$. When the stem begins with $/s/$, I believe the $/s/$ and $/g/$ merge to form $/dʒ/$ ($/gs/ \rightarrow /dʒ/$), a phoneme which appears elsewhere in the language.

4 Wood (2010)

- (10) a. adam masarak t-osij-a
Adam Masarak 3SG-learn-PST
'Adam learned Masarak.'
- b. adam tiro masarak to-n-osij-a
Adam_i him_j Masarak 3SG-CAUS-learn-PST
'Adam taught him Masarak.'

In the causative pair *-ar-* 'come' and *-nar-* 'bring' ('cause-to-come'), the agreement allomorph shifts from [g] to [∅] once the causative *-n-* is added to the base. Both (15a) and (15b) show agreement allomorphs from the G-Class set, revealing that the addition of causative morphology only alters the phonological shape of the verb stem (i.e., it does not effect verb class, or allow for the selection of agreement allomorphs between G- and L-Class sets).

- (11) a. **g-ar-a**
2SG-come-PST
'You came.'
- b. **∅-n-ar-a**
2SG-CAUS-come-PST
'You brought (it).'

2.2.1 Declarative Allomorphy

G-Class allomorphy is predictable, but irregular. When the verb stem begins with a consonant other than /s/, the 2SG agreement allomorph is [∅]. When the verb stem begins with /s/, the allomorph is [dʒ]. Elsewhere, the allomorph is [g].

- (12) a. *-ja : n-* 'eat'
i. **∅-ja:n-a**
2SG-eat-PST
- b. *-so ron-* 'fight'
i. **dʒ-oron-a**
2SG-fight-PST
- c. *-imin-* 'kick'
i. **g-imin-a**
2SG-kick-PST

L-Class allomorphy is completely regular. When the verb stem begins with a vowel, the 2SG agreement allomorph is /l/. Elsewhere, the 2SG agreement allomorph is /IV/. This is the same pattern that follows from the agreement morphemes displayed across other persons and numbers in the language.

(13)	a.	<i>-aij-</i> 'enter'	b.	<i>-siŋ-</i> 'step on'	c.	<i>-dʒiŋel-</i>
	i.	l-aij-a	i.	li-siŋ-a	i.	li-dʒiŋel-a
		SG -enter-PST		2SG -enter-PST		2SG -wake.up-PST

3 Imperative Forms

Masarak has a morphologically dedicated second singular as well as second plural imperative system. Recall that in declarative verbs, both number and person are contained within the agreement prefix. In perfective imperative verbs the plural is distinguished by the verbal suffix *-i*. The morpheme *-i* does not indicate the plural elsewhere in the language. Note that there is no number feature contained in the imperative marker **lu-**. Note, additionally, that the verb root in (18) is inflected for the **perfective** aspect.

- (14) a. maŋ ndisiŋgo lu-toroŋ
 you.SG door IMP-open.PFV
 'You, open the door!'
- b. ki ndisiŋgo lu-toroŋ-i
 you.PL door IMP-open.PFV-PL
 'You all, open the door!'

Like the declarative 2SG, the Masarak imperatives show a wide range of allomorphy and a similar pattern regarding the regularity of verb classes. In G-Class verbs, the imperative morpheme is either /k/ (when the verb stem begins with a vowel) or /∅/ (elsewhere). L-Class imperatives (unsurprisingly) show the same patterns for allomorph selection as L-Class 2SG verbs. The imperative morpheme is either /l/ (before a vowel) or /lV/ (elsewhere). This conclusion, again, is supported by causative evidence. Just as in 2SG declarative verb, the addition of a causative morpheme only affects stem phonology, and does not influence class membership.

(15) G-Class allomorphy:

Stem initial:	Allomorph:	Example:
/s/	∅	∅-soron(-i) IMP-kick(-PL) 'You (all) kick!'
C, non-/s/	∅	∅-ndil(-i) IMP-tell(-PL) 'You (all) tell it!'
V	k	k-aŋiŋ(-i) IMP-run(-PL) 'You (all) run!'

(16) L-Class allomorphy:

Stem initial: Allomorph: Example:		
C	IV	la-dziŋ(-i) IMP-sing(-PL) 'You (all) sing!'
V	I	l-ij(-i) IMP-die(-PL). 'You (all) die!'

Like the declarative forms of the verb, Masarak imperatives also show a perfective/imperfective root alternation. Note that example (21) follows the final-rime-dropping pattern described in (6). Note that the perfective imperative, *kulo*, is marked with an additional suffix, *-o*, which I gloss as a continuous marker.

(17)	a.	k-ulŋ	b.	k-ul-o
		IMP-take.PFV		IMP-take. IPFV-CONT
		'Take (it)!'		'Continue taking (it)!'

Due to this continuous marker, Masarak imperfective imperatives cannot be pluralized with the addition of the suffix *-i*. Instead, the suffix *-e* must be used. It is possible that this *-e* is really a combination of the continuous *-o* and the plural morpheme *-i*.

A final note regarding Masarak imperatives is the unusual syncretism between Masarak imperatives and participial forms. Masarak has both imperfective and perfective participial verb forms. Imperfective participials are completely syncretic with imperfective imperatives in the language. Likewise, perfective participials are syncretic with perfective imperatives. An example of this can be seen on the following page, in (23):

- (18) a. ki: ka-dziŋ-a ŋugur-u **ken**
 you.PL 2SG-sing-PST food-ACC **make.PFV**
 'You sang after preparing the food.'
- a'. ŋugur-u **ken**
 food-ACC **make.IMP**
 'Make food!'
- b. adam kuŋo **roko** ambro andi-kela
 Adam fish **sell.IPFV** I.ACC 3SG>1SG-see-PST

5 Conclusions

This paper has demonstrated that Masarak verbs can be divided into two classes, which I have dubbed the G- and L-Classes. Class membership is unpredictable, and assigned before syntax. L-Class verbs show a regular agreement pattern across all persons, including 2SG. G-Class verbs, however, do not show a regular agreement pattern in 2SG. However, even though G-Class allomorphy is irregular, it is still completely predictable. Across the second person, class membership and the phonology of the left-edge of the verb stem are necessary to predict 2SG agreement allomorphy. This information—class membership and stem phonology—will determine the phonological shape of the 2SG declarative, imperative, prohibitive and participial verb form.

All declarative and prohibitive verbs utilize the same agreement prefixes, which are marked for both person and number. The imperative agreement prefixes, however, are not marked for number, and so, in imperative verbs, plurality is indexed by the addition of the plural-marker *-i*.

Theoretical questions remain surrounding two aspects of 2SG agreement. The first is the question of which features the pure agreement suffixes (shown in declarative and prohibitive verbs) share with the imperative morphemes. Recall that G-Class verbs use the allomorphs /k/ and /ø/ to mark imperative verbs. In the declarative paradigm, /k/ and its agreement allomorph are marked with a **plural** feature. L-Class verbs use the allomorphs /l/ and /IV/ to mark imperative verbs. In the declarative paradigm, /l/ and /IV/ are marked with a **singular** feature. Example (22) compares the declarative and imperative forms of relevant G- and L-Class verbs.

(22)		Declarative Singular	Declarative Plural	Imperative
	G-Class	g-aɾiŋ-a 2SG-run-PST 'You ran.'	k-aɾiŋ-a 2PL-run-PST 'You all ran.'	k-aɾiŋ(-i) IMP-run(-PL) '(You all,) run!'
	L-Class	la-dʒiŋ-a 2SG-sing-PST 'You sang.'	ka-dʒiŋ-a 2PL-sing-PST 'You all sang.'	la-dʒiŋ(-i) IMP-sing(-PL) '(You all) sing!'

The second is the question of the identical form of Masarak imperative and participial verb. Example (23) gives an example of this syncretism, using both an imperfective imperative/participial pair while (24) gives an example of a perfective imperative/participial pair.

- (23) a. adam kupo **roko** ambro andi-kela
 Adam fish sell.PTCP I.ACC 3SG>1SG-see-PST
 'Adam saw me while selling the fish.'
- b. kupo **roko**
 fish sell.IMP
 'Continue selling the fish!'
- (24) a. ki: ka-dʒiŋ-a ɲugur-u **ken**
 you.PL 2SG-sing-PST food-ACC make.PFV
 'You sang after preparing the food.'
- b. ɲugur-u **ken**
 food-ACC make.IMP
 'Make food!'

Acknowledgments

Thanks to Jim Wood and John Singler for discussion of the material included in this paper. I am especially grateful towards my Masarak informant, whose patience allowed for the elicitation of this data. All data in this paper comes from my own fieldwork unless otherwise stated. All mistakes and shortcomings are my own.

References

- Chu, Edward. 2010. *The Vowel Phonology of Masarak: Regarding the Back Vowels and the Subject Agreement Forms of Verbs*. Manuscript, NYU
- Dimmendaal, Gerrit J. *Review of John Edgar: A Masalit Grammar with Notes on Other Languages of Darfur and Wadai*. Bulletin of the School of Oriental and African Studies 55 (1992): 612-14. Print.
- Edgar, John. 1989. *A Masalit Grammar: with Notes on Other Languages of Darfur and Wadai*. Berlin: D. Reimer.
- Jaspars, Susanne, and Sorchia O'Callaghan. *Challenging Choices: Protection and Livelihoods in Darfur*. Danish Refugee Council, Dec. 2008. Web. 17 Aug. 2010.
- Livitz, Inna. 2010. *Embedded Clauses in Masarak*. Manuscript, NYU
- Smith, James F. *Boston Doctors Detail Darfur Refugees' Accounts of Rape, Assault*. The Boston Globe. Boston.com. 31 May 2009. Web. 17 Aug.

2010. <http://www.boston.com/news/world/africa/articles/2009/05/31/boston_doctors_detail_darfur_refugees_accounts_of_rape_assault/>.
- Van Der Auwera, Johan, Ludo Lejeune and Valentin Goussev. 2008. The Prohibitive. In: Haspelmath, Martin & Dryer, Matthew S. & Gil, David & Comrie, Bernard (eds.) *The World Atlas of Language Structures Online*. Munich: Max Planck Digital Library, chapter 71. Available online at <http://wals.info/feature/description/71>. Accessed on <6/18/2010>
- Van Der Auwera, Johan, Ludo Lejeune, Valentin Goussev, and Umarani Pappuswamy. 2008. *The Morphological Imperative*. In: Haspelmath, Martin & Dryer, Matthew S. & Gil, David & Comrie, Bernard (eds.) *The World Atlas of Language Structures Online*. Munich: Max Planck Digital Library, chapter 70. Available online at <http://wals.info/feature/description/70>. Accessed on <6/18/2010>
- Wood, Jim. 2010. Argument Structure, Case and Agreement in Masarak. Manuscript, NYU. <<http://homepages.nyu.edu/~jpw287>>

Past simple & present perfect: Distribution in the Standard Italian of Greater Rome

Elizabeth Magnotta
University of Montana

The Past Simple (PS) and the Present Perfect (PP), two past tense forms in Italian, have disparate distribution in the spoken language of Italy. Use of the PS and PP, ('use' referring to both frequency and function), varies across northern, central, and southern regions (Pulgram, 1984; Bertinetto and Squartini, 1996; Esskali, 2002). In Central Italy, both forms are claimed to be in equal use (Esskali, 2002). Rome, geographically a part of Central Italy, is a social and cultural anomaly according to Pulgram (1984). I propose that Rome is a linguistic anomaly as well: while both the PP and PS appear in equal distribution in Central Italy, only the PP (of the two) is used in spoken language within Rome. Using the research of Bertinetto and Squartini (1996) as a basis, I elicit data from an L1 speaker of Roman Italian. My analysis shows that the PP has absorbed the aoristic aspect of the PS: the collected data shows that the consultant has a strong preference for the PP, confirming my hypothesis. Using the Stages of Development as proposed by Harris (1982) in Bertinetto and Squartini (forthcoming), I claim that in Rome, the PP has reached Stage IV; the final stage of development in which the PP has replaced the PS. This research has implications about the trend of many Romance languages towards disuse of PS forms.

1 Introduction

My research question is: given that the distribution and use of the two past tense forms, the past simple and the present perfect, vary across regions of Italy, is there a preference for one form over the other in spoken Italian in Rome? Italian has three principle past tenses (Pulgram, 1984): the Past Simple (PS), the Present Perfect (PP), and the Imperfect. These three tenses are described by Lepschy & Lepschy (1977) in the following way: the PS describes a "complete action which is no longer related to the present (p.220-1)"; the PP denotes a "completed action which is still felt to be in some way linked to the present ... past events the effects of which still lasts ... (p. 220)" ; the Imperfect is used to express an action which is either continuous or a "completed action if this is habitual (p. 220)". The focus of this paper is the PS and the PP. Variation in usage is seen between these two tenses across geographic areas of Italy. I claim that there is a preference in

spoken language in Rome, for the PP over the PS, to the extent that the PS is in disuse in spoken Italian; in Rome, it is used only as a literary tense. Using the Stages of Development proposed by Harris (1982) (as cited in Bertinetto & Squartini, forthcoming), I also claim that the PP in Rome is in Stage IV of development as an aorist past. The PP has gone through Stages I, II, and III, and has arrived at Stage IV, at which point it has subsumed the functions of the PS. I also tentatively posit, that the motivations for the aoristic drift of the PP has been due to the greater degree of morphological regularity that is found in composite verb forms in Italian than in the simple verb form.

By use, I intend both the frequency with which speakers use the form, as well as the functions that the forms are used by speakers to express. Given the above definitions, the PS can be described as an aorist past and the PP as past with perfect aspect. However, a one to one relationship between form and meaning is not found in spoken Italian. In certain regions of the country, one or the other of the two forms (PS and PP) is restricted in its functions (Pulgram, 1984; Bertinetto and Squartini, 1996; Esskali, 2002). I will address this disparity in distribution of the forms and their meanings in § 2.

Example 1 in the Data Appendix shows instances of the PS and PP. The pairs of examples, English and Italian, are translations of each other. The Italian and English equivalents in pairs a. and b. grammatical in their respective languages. The PS describes an aorist event in pair a., and the PP in pair b. describes an event with perfect aspect. Pair c. shows that while the PP in English is incompatible with an aorist context, in Italian, the PP can be used to describe an aorist event. In certain regions of Italy in particular, the PP is preferred in an aorist context over the PS.

2 Background

“Aoristic drift”, (Bertinetto & Squartini, forthcoming), describes the process by which the PP subsumes aorist past functions; this is a trend seen in many Romance languages. In languages like French and Italian, the function of the PS can be, depending on geographical location, restricted to that of a literary tense. Harris (1982), as cited by Bertinetto and Squartini, proposes four stages of development that the PP goes through while in the process of aoristic drift. In Stage I, the PP has a restricted function: it refers to present states resulting from past actions, but cannot refer to past actions themselves. In Stage II, the PP refers to experiential events that have a durative or repetitive quality. In Stage III, the PP can express prototypical perfect meaning describing past actions with present relevance. Finally, by Stage IV, the PP has acquired the aorist function of the PS and is used to describe aoristic events in place of the PS.

A synchronic snapshot of Italy reveals that in Northern Italy, the PP is the primary form used, and the PS is disused entirely in spoken language; its function

is restricted to that of a literary tense only. Northern Italy is cited by Harris as an example of a linguistic environment where the PP is in Stage IV of aoristic drift. The opposite is found in Southern Italy; here the PS is the primary form used, and parts of Southern Italy are cited as an example of a linguistic community with the PP in Stage I of development.

Central Italy, where Rome is located, cannot be cleanly categorized into one of the stages development. Esskali (2002) and Bertinetto & Squartini (1996) claim that in Central Italy, the PP and the PS can be found in equal distribution. The meaning of 'equal distribution' however, is not clear. Whether this term refers to frequency or to distribution of functions is not explained. However, it has been established through the literature, that, unlike the cases of Northern and Southern Italy, there are two forms, each with a strong presence, in use in Central Italy.

Rome is located in the region of Lazio in Central Italy. The time I spent as a language learner in Rome indicated to me that the PS is not used in spoken language. The disparity between my own experience and the claims made in the literature led me to question whether Rome may or may not have a unique linguistic status within Central Italy. I have since discovered that, at least socially and culturally, Rome is unique within Italy. According to Pulgram (1984), Rome is an anomaly; it is viewed as a northern city by southerners, a southern city by northerners, and is considered a separate entity from the rest of Central Italy. This indicated to me that Rome may be a linguistic anomaly as well as, with respect to the distribution and use of PS and PP.

3 Methodology

I collected data from a 36 year old Roman man, who was born in and has lived in the area of greater Rome for all of his life. I issued two questionnaires to my consultant via e-mail, Questionnaire 1 and Questionnaire 2.

Bertinetto & Squartini (1996) researched the variation in use and distribution of the PS and PP in Northern, Central, and Southern Italy. Data was collected from a body of consultants drawn from three cities in each of the three above mentioned regions. The consultants were determined by the researchers to be of 'local pedigree' meaning that their primary linguistic influence was the language community in which they lived, making them ideal representatives of their respective regions' language use. Each consultant was issued a questionnaire (referred to as Questionnaire 1). Questionnaire 1 consists of a series of sentences which each had one or more instances of fill in the blank. A verb given in its infinitive form, and the consultants were asked to supply the verb form which best fit the context of the sentence (consultants were not directed toward any particular verb form(s)). I borrow Questionnaire 1 from Bertinetto & Squartini (1996), and issue it to my consultant with a few added

examples of my own. Example 2 shows sentence 1 of Questionnaire 1 as seen by my consultant; the given verb is in its infinitive form in bolded capital letters preceding the blank.

A benefit of Questionnaire 1 is that the responses elicited were the consultants' first and most immediate responses. One limitation, however, was that the consultants may have responded to the fill in the blank prompts in a prescriptive, rather than descriptive way, reflecting their knowledge of grammar rules rather than their actual usage of the forms. A second limitation is that while Questionnaire 1 elicited the consultants' most immediate responses, it did not account for what other possible, and equally correct, answers may exist for each prompt.

To address the first limitation, I asked my consultant to respond in a way that reflected his use of the language, not his knowledge of grammar. To address the second limitation, I created and issued Questionnaire 2. Questionnaire 2, a grammatical judgment task, is identical to the first, in place of fill in the blank, the corresponding same as provided in Questionnaire 1, was provided in Questionnaire 2 in the PS form. The consultant's task was to give grammaticality judgments of each instance of the PS occurrence, based on the schema provided as seen in example 3: ☺ indicates that the PS can be used; ? indicates that it can be used only provided that the larger context is appropriate ; and, ! indicates that the PS cannot be used in the context of the sentence. Example 4 shows the first sentence of Questionnaire 2 as seen by my consultant; the verb in its PS form is in lowercase bolded letters.

In each of the questionnaires, there were 27 sentences with a total of 36 instances of the corresponding verb form. Next, I examine the results collected from each questionnaire individually. When referring to examples, I use the example numbers as they appear in the Data Appendix.

4 Questionnaire 1

In this section, I examine the results from Questionnaire 1. Example 5 shows the format of the consultant's responses to Questionnaire 1, and all examples of responses from this questionnaire follow the same format: the consultant's response is shown in capital bolded letters.

4.1 Data & Analysis

In 34 out of 36 instances of fill in the blank prompts, my consultant responded the PP form. Additionally, there was one instance in which the consultant used the PS, and one instance in which he used neither the PS nor PP. The 34 instances of PP use include examples in which the context is clearly aoristic, as well as examples in which the context was perfect. For the purposes of this

paper, I focus on those examples of PP use in aoristic contexts. First, I discuss the two examples for which the consultant chose a form other than the PP. Then, I show examples of PP use as an aoristic past.

Example 6 shows the only instance in which my consultant used the PS. The time reference (underlined) in this example is ‘in the course of the 16th century’, establishing an aoristic context: the event is not progressive or habitual, and takes place in the past without reference or relevance to the moment of speech. Significantly, I analyze the tone of this example as academic: that is, this sentence is more literary than conversational. This analysis is supported by Bertinetto & Squartini (1996) who analyze this sentence as an example of an historical narrative. Analysis of this example 6 as an historical narrative supports the claim that PS is preferred as a literary tense, rather than as a form used in conversation or speech.

Example 7 contains three instances of fill in the blank. The last instance, underlined, is the instance referred to earlier in which neither the PP nor the PS were the choice of the consultant. The verb form used is the Present Simple. In Italian, the present simple can function as an historic past. However, in this example, the structure *sono vent'anni*, literally translated as ‘(they) are 20 years’, is in the present simple, which in Italian, requires the present simple in the verb which follows. This form and structure are not relevant to the scope of this paper; therefore, I will limit my analysis of this instance to the explanation just provided.

Example 8 shows 3 sentences in which the PP functions as an aorist past. In each example, the portion of the sentence expressing the time frame is underlined: In sentence 8, ‘at exactly 5 on February 7, 1991’ ; in sentence 15, ‘two years ago’ ; and in sentence 22, ‘yesterday’. In each example, the time reference describes an aoristic time reference; the past action is neither habitual nor progressive, nor does it express perfect aspect. Instead, these time phrases establish a past action that is begun and completed in the past without relevance to the present.

The results of Questionnaire 1 show the PP to be the preferred choice of my consultant. The PP in was the elicited form in 34 out of 36 instances. Additionally, in 25 of those 34 instances in which the PP was the preferred choice of my consultant, the context was aoristic, as seen in examples 8 a. b. and c. This indicates that in the Italian spoken in Rome, the PP can be used to describe aoristic events, and that it has acquired the functions of the PS. However, while I have established that the PP is the form preferred by my consultant in Questionnaire 1, it is nonetheless possible, that the PS was not the first choice of my consultant, that it is as acceptable in the same contexts. I address this question with Questionnaire 2.

5 Questionnaire 2

An example of the data collected from Questionnaire 2 is shown in example 9 sentence a. in which the verb form provided is in bolded lowercase letters and the grammaticality judgment offered by my consultant is marked, according to the schema explained in § 3, at the end of the sentence. In cases of more than one instance of the verb form within one sentence, all instances were analyzed to have received the same grammaticality judgment indicated at the end of the sentence. An example of this is shown in example 9 sentence b.

5.1 Data & Analysis

Out of a total of 36 instances of grammaticality judgment in Questionnaire 2, the consultant marked: 26 with a ☺, (acceptable use of the PS); 3 with a ?, (acceptability is dependent on the larger context); and, 7 with an ! (use of the PS was not acceptable). The contexts of the 26 instances marked ☺ were the aorist past. These examples confirm use of the PS as an aoristic past, and also indicate that the consultant's grammar has a high degree of acceptability of the PS, in spite of the strong preference for the PP that was seen in Questionnaire 1.

The 3 sentences marked as ? are seen in example 10. All three sentences, a.-c., describe events with perfect aspect established by the corresponding time phrases (underlined): in sentences a. and b, the context is experiential, marked by the adverb *mai* '(n)ever'. In sentence c., although the action in the past, it is made relevant to the moment of utterance within the context by the question 'Do you know the latest?'. What cannot be explained by the data here is why use of the PS has any degree of acceptability in a sentence which establishes a past context with perfect aspect.

The 7 instances which received an exclamation mark are shown in example 11. They are particularly relevant to my research question in that their judged unacceptability is not predictable given the acceptability of the sentences in example 10. The sentences in example 11 weigh substantially to support the claim made in this paper that the PP is the preferred form in spoken language in Roman Italian.

The context of the three instances of PS use in example 11 sentences a., b., and c., is perfect. Perfect aspect is established with the time phrases (underlined) 'yet', in sentence a., 'until now', and 'always' in sentence b., and 'still' in sentence c. The examples shown earlier in example 10 show that the PS can be used with a degree of acceptability in contexts of the perfect aspect. However, in example 11, sentences a.-c., the PS cannot describe an event with perfect aspect. What appears to separate the acceptable sentences in example 10 with the unacceptable sentences in example 11 is tone. While it is possible to place the sentences in example 10 in a dialogue, it is also possible to place them in a

written context as well. The sentences in example 11 however, are difficult to contextualize outside of the setting of a conversation or dialogue. I posit that the sentences in example 11 are less acceptable due to the tone, which is more obligatorily conversational in nature. This claim is supported by examining sentence d. of example 11. Sentence d. Shows that in spite of the aoristic context of the sentence, established with the time phrases (underlined) ‘two years ago’ and ‘in 1988’, the PS is unacceptable. This sentence has a strong conversational tone, and I analyze that it is the tone of the sentence that is the cause of the unacceptability of this sentence.

Questionnaire 2 shows that the PS is considered acceptable by my consultant in 26 out of 36 instances (with aoristic contexts), questionable in 3 out of 36 instances (with perfect contexts), and unacceptable in 7 out of 36 instances (contexts were both aoristic and perfect). I have shown that although use of the PS is acceptable in aoristic contexts and questionable in perfect contexts, use of the PS was unacceptable to my consultant when the tone of the sentence was strongly conversational, regardless of whether the context was aorist or perfect. Although it is shown in the data from Questionnaire 2 that the PS is widely acceptable to my consultant, the results lend support to the claim that the PP is preferred in spoken language. I questioned my consultant about the reasons for his grammaticality judgments, attempting to understand his intuitions as a native speaker. He responded to me with the following statement (translated from the Italian): “even if it is correct, we don’t use the past in that tense (PS) ... it isn’t wrong as you have written, but it isn’t used much in spoken language”.

6 Summary of Results & Further Research

The results from both questionnaires support my claims. In Roman Italian, the PP, through the process of aoristic drift, appears to have subsumed the functions of the PS in spoken language, to the extent that the PS is dis-preferred in speech and is used only in literature. The PP has passed through Stages I, II, and III of the stages of development proposed by Harris (1982); it has arrived at Stage IV where it is used to describe past events with both aorist and perfect aspects, in place of the PS.

Bertinetto & Squartini (1996) discuss aoristic drift as a general trend seen in many Romance languages including Italian. One possible explanation for this effect, touched on by Bertinetto & Squartini, is that the PP, although morphologically more complex, is more regular than the PS in terms of conjugations. However, although I propose this as a possible explanation, to make this claim is outside the scope of this research paper.

An area for further research is the categorization of Central Italy within the stages of development. The term ‘equal distribution’ needs clarification as more than one interpretation of this term is available. One interpretation is that there

are two forms present that serve independent functions: for example, the PS might be restricted to function as the aorist past, while the function of the PP is restricted to that of a perfect/experiential past. A second interpretation is that the two forms appear in equal frequency with overlapping functions.

An additional area for continued research is the role sociolinguistics in this discussion: North, Central and South Italy have marked social statuses within Italy. Additionally, the PS is a marked tense: academic and educated, while the PP remains unmarked or neutral. The point to be investigated would be what effects does the interaction between the social status of the regions and of the forms themselves have in determining distribution and use.

Acknowledgements

Flavio Patella - Roman Consultant
The University of Montana - Department of Linguistics Faculty
The University of Montana - Office of the Provost

References

- Bertinetto, P.M. & Squartini, M. (1996). La Distribuzione del Perfetto Semplice e del Perfetto Composto nelle diverse varietà di italiano. *Romance Philology*, 4, 383-419. Retrieved from <http://linguistica.sns.it/Pagine Personali/PubblicazioniPMB/PMB/Perfetto.pdf>
- Bertinetto, P.M. & Squartini, M. (Forthcoming). Tense and aspect in the languages of Europe. "The Simple and Compound Past in Romance Languages". Östen Dahl.
- Esskali, B. (2002). Analisi grammaticale dei due tempi passati nell'italiano contemporaneo - passato remoto (semplice) e passato prossimo (composto). Grin Publishing. Doi:10.3239/9783638254984
- Lepschy A. L. & Lepschy G. (1977). *The Italian Language Today*. Hutchinson Educational. London.
- Pulgram, E. (1984). The Functions of Past Tenses: Greek, Latin, Italian, French. *Language Sciences*, 6(2), 239-269 doi: 10.1016/S0388-0001(84)80019-4

Data Appendix

(1) Examples:	English	Italian
Past Simple:	a. Yesterday, I ate a pizza.	Mangiai una pizza ieri.
Present perfect:	b. I have eaten 3 pizzas.	Tre pizze ho mangiato .
	c. *I have eaten a pizza yesterday	Ieri ho mangiato una pizza.

- (2) Mia sorella **LEGGERE** _____ già questo libro l'anno scorso
- (3) ☺ Si può dire tranquillamente ? Si può dire, nel contesto giusto ! Non si può dire
- (4) Mia sorella **lesse** già questo libro l'anno scorso
- (5) Mia sorella **HA LETTO** già questo libro l'anno scorso
- (6) Nel corso del xvi SEC GLI Spagnoli FONDARONO numerose città nel Nuovo Mondo
'in the course of the 16th century the Spanish **FOUNDED** numerous cities in New World'
- (7) Vedi quella macchina rossa! **L'HO VENDUTA** due anni fa, però **L'HO COMPRATA** nel 1988. Ci credi? Sono vent'anni che la POSSIEDO.
'Look at that red car! (I) **HAVE SOLD** it 2 years ago, but (I) **HAVE BOUGHT** it in 1988. Can you believe it? (They are) 20 years that I OWN it.
- (8) a. Marco **E' PARTITO** alle 5 in punto del 7 Febbraio 1991
'Mark **HAS LEFT** at exactly 5 on February 7 1991'
- b. Questi sci LI HO COMPRATI due anni fa
'**I HAVE BOUGHT** these skis two years ago'
- c. Questo è il libro che ieri HO TROVATO
'This is the book I **HAVE FOUND** yesterday'
- (9) a. Mia sorella **lesse** già questo libro l'anno scorso ☺
- b. Mi ricordo che nel 1985 **nevicò** molto e per Pasqua io **andai** a sciare ☺
'I remember that in 1985 it **snowed** a lot and at Easter I **went** skiing'
- (10) a. Tu, nella tua vita, **andasti mai** a Londra? ?
'You, did you ever go to London?'
- b. Nel periodo in cui abitavi in Francia, tu **andasti mai** a Parigi? ?
'In the period when you used to live in France, **did** you ever go to Paris?'

- c. *La sai l'ultima? Arrivò Marco ?*
 'Do you know the latest? Mark **arrived**'
- (11) a. *Non so, non lo ascoltò ancora !*
 'I don't know, I **didn't listen** to it yet'
- b. *Finora io vissi sempre in questa casa !*
 'until now I always **lived** in this house'
- c. *Tua sorella è ancora all'estero? No, tornai e adesso è con noi!*
 'Is your sister still abroad? No, she **returned** and is with now us'
- d. *Vedi quella macchina rossa! La vendei due anni fa, però la comprai nel 1988. Ci credi? Sono vent'anni che la possedetti !*
 'Look at that red car! I **sold** it 2 years ago, but I **bought** it in 1988. Can you believe it? I **owned** that car for 20 years.'

Emotions and lexical memory

Heidi B. Kent

Simon Fraser University

hbk1@sfu.ca

Is there a link between emotion and memory and, if so, can that link be leveraged in the language learning environment to facilitate the consolidation in memory of lexical semantic items in an L2? L2 subjects were given a list of vocabulary items to learn, including a translation of the vocabulary items. Next they were shown a reading passage which used the vocabulary in context. The participants twice heard an audio recording of the passage while they followed along with the text. Participants were divided into an experimental group, in which the audio recording accentuated the emotional content of the story, and a control group, in which the recording was presented in a neutral tone of voice. A post-test, then delayed post-test, assessed how well the subjects remembered the items.

The hypothesis was that the style of audio reading accompanying the written text (emotional or neutral) would influence the results on a post-test and a delayed post-test on the vocabulary used in the passage. However, the hypothesis was not supported.

Results are discussed in terms of other learning benefits to enhancing the emotional content of the text, which the students in the experimental group found to be more engaging and interesting. Furthermore, methodological issues are examined.

1 Introduction

Nearly all intermediate-level foreign language textbooks provide some variation on the theme of a) introducing a set of vocabulary, b) providing a reading that uses the vocabulary in a salient way, and c) reinforcing the vocabulary soon thereafter using exercises and/or activities. In some cases the vocabulary set may be explicitly provided before or after the reading; alternately, vocabulary items may be defined inline (or students may be expected to look up the words). But using a textual medium to help teach and reinforce vocabulary is a pervasive technique.

This paper draws on research in the neuroscience of memory to see if the content of such text can be manipulated in such a way as to increase the students' ability to remember the vocabulary. Specifically, will increasing the emotional impact of a text improve the acquisition of the text's vocabulary?

2 Background

Previous findings in the following areas bear on this study in terms of methodology and theoretical designs: Lexical acquisition experiments, studies regarding emotion and memory, and the neurological basis of emotion and memory.

2.1 Lexical acquisition experiments

In order to ensure a strong design for this study, contemporary lexical acquisition experiments (e.g. Carter et al, 2001; Min, 2008; Zaid 2009) were examined for their methodological techniques. Rott's (1999) critique of incidental vocabulary acquisition methodologies particularly discussed the importance of the following elements, which were addressed as much as possible in the study design.

A pre-test/post-test design ensured the students did not have previous knowledge of the target vocabulary. A two-way ANOVA looked at differences across the pre-test and post-test as well as the test condition. As a control, one group heard the text read in a neutral tone of voice, the other in a voice that fully engaged the emotional content of the text. In order to be sensitive to "partial knowledge gain," a variation on the Vocabulary Knowledge Index was used to test vocabulary (Wesche and Paribakht, 1996). Finally, students took a delayed post-test (one week after the reading), which tested their retention of the words.

2.2 Studies regarding emotion and memory

Is there a link between emotion and memory? This question yields a fairly straightforward "yes" as an answer. In conditioning experiments dating to Pavlov's (1906) famous dogs, a conditioned response (such as the ringing of a bell) can be linked to an unconditioned response (being fed) through repeated exposures. An unconditioned response is something that we inherently desire (such as food, sex, shelter) or that we desire to avoid (such as something that hurts us). Emotions, both positive (happiness, love) and negative (fear), provide the link between the things we want and need and the memory of what we need to do to acquire them.

Applying the principles behind the connection between Pavlov's dogs' food and the ringing of a bell to something as cognitively complex as language requires some deep examination. After all, in Pavlov's case there was a one-to-one connection between the unconditioned and the conditioned response. Furthermore, the experimenter was able to reinforce the connection through repeated exposures. While this technique might apply if we only cared to teach a single word (such as "spaghetti") to a single student who was dependent on us for

food, it clearly does not scale up in any useful way.

Nonetheless, if we examine the neurology behind this learning mechanism, we might be able to leverage what we learn to inform materials that will promote semantic memory in a language learning environment.

2.3 The neurological basis of emotion and memory

2.3.1 Different memory types, different learning mechanisms

Squire (1986) articulates two main type of memories: Declarative (which includes episodic and semantic memory) and procedural (implicit knowledge such as skills). Furthermore, Squire's examination of results from experiments with amnesiac patients led him to conclude that classic conditioning is "phylogenetically old" (p. 1615) and relies on different neurological mechanisms than declarative memory consolidation, which is more recent from an evolutionary standpoint. Numerous studies (summarized in LaBar, 2009) show that damage to the hippocampus can cause amnesia for declarative memory but not for procedural memory.

2.3.2 The memory modulation hypothesis

The story of the connection between emotion and memory starts in the medial temporal lobe, where the amygdala modulates the consolidation of memory. fMRI studies, as well as studies of patients and animals with pathology in these areas, have let us measure the activation in these areas and to make correlations between their activation and the consolidation of memory.

James McGaugh (2004) provides an interesting theory of how the amygdala might serve to link memory and emotion in the human brain. According to McGaugh, there is a mechanism whereby "neuromodulatory influences occurring selectively within the baso-lateral amygdala (BLA) regulate the consolidation of memory for various kinds of experiences through BLA projections to many other brain regions involved in storing newly acquired information." (p. 2) Apparently the chemicals produced in emotional response activate the processes which consolidate memory.

Experimental support for the effect of the amygdala in fear conditioning is detailed in McGaugh (2004). Rats, for example, who are given fear conditioned training and then subjected to electrical stimulation of the amygdala have their memory of the training impaired. Expanding this theory to humans and to other types of emotional responses, McGaugh analyzed studies which suggested that hormones secreted by arousal readily enter the brain, where their effects are mediated by the BLA.

3 Hypotheses

Given this link between emotion and memory, the hypothesis under investigation is that semantic memory will be stronger, as measured by performance on post- and delayed post-tests, when the lexical item was learned in the context of a story read in an emotionally engaging tone of voice in contrast to the same story read in an emotionally neutral tone of voice.

Importantly, the lexical items used in this study (such as “leather,” “leave of absence,” “to backfire”) do not have any particular emotional content. The idea is that the emotional impact of the story itself will trigger memory.

4 Methods

4.1 Methodology

The experiment was run over the Internet with the participants using their own equipment. An Adobe Flash program controlled the sequence and sometimes the pacing of the steps; subjects could not “jump around” or skip sections. First, a pre-test checked the subject’s knowledge of the target vocabulary. Next the subjects were shown a set of vocabulary words, with the translations in English.

Next, subjects listened to and read along with a short passage in the target L2 (French) which used the vocabulary words in a semantically salient way. The reading style was manipulated, with subjects either hearing a reading which accentuated the emotionally engaging elements of the passage, or a neutral reading of the same passage in a flat tone of voice. A post-test was given after the reading, as well as a few comprehension questions and some subjective questions to find out if they found the passage to be emotionally interesting. Finally, a delayed post-test was given one week after the session.

4.2 Participants

Participants were L2 (French) learners. There were 15 subjects in the study but only 12 in the analysis because 3 subjects neglected to complete the delayed post-test. Because understanding the non-target words in the reading passage was critical to the evaluation of the results, participants were in a third semester language class. All students had a good knowledge of English (for purposes of initial presentation of the lexical items and their translations); their linguistic background was collected along with age and gender.

Participants were recruited primarily from an Intermediate level French class at a Canadian (British Columbian) university.

4.3 Stimuli

There were 16 target lexical items -- enough to well exceed the span of immediate memory but few enough that they could all be contained in a passage that would be read in a single setting.

The lexical items were scored via a "Vocabulary Knowledge Scale" which indicated the degree of familiarity with the lexical item. The scale ranged from 0 (completely unfamiliar) to 3 (the student knows the meaning and can use it correctly in a sentence).

4.4 Procedure

This study was conducted via an Adobe Flash movie created by the experimenter. The movie sent all user input to a program on the experimenter's server. This program saved all user input to a tab-delimited text file, the contents of which were later transferred to SPSS. Input collected included informed consent, background info, such as the participant's age and L1, the date/time that the participant completed each screen, their answers for the pre-test and post-tests, and the answers for the comprehension/subjective reading assessment questions.

Participants who completed the study were rewarded \$5, either cash or with a digitally-redeemable reward, such as an Amazon.com gift certificate.

5 Analysis

Vocabulary scores for each "familiarity" rating were manually adjusted by the researcher. If the subject indicated they knew the meaning of a word and gave a correct definition they were scored a 2; if however their definition was incorrect their score was reduced to a 1 ("I've seen this word but I don't know what it means."). Originally sentences which correctly used the word were scored as a 3. However, it was noted that some participants were simply more diligent than others in producing sentences. That is, some subjects wrote many sentences in their tests, others wrote none at all, although they seemed to have a command of the meanings. Since the purpose of the study was to measure vocabulary gain, and not diligence, all scores of 3 were reduced to 2.

The main analysis was a repeated measures analysis of variance. Also analyzed was the correlation between the test condition (hearing an emotional vs. neutral reading) and the subjects' subjective impressions (whether they found the story emotionally engaging and whether they were interested to learn what happens to the characters).

6 Results

The hypothesis was that the style of audio reading accompanying the written text (emotional or neutral) would influence the results on a post-test and a delayed post-test. However, the hypothesis was not supported ($p = .273$), as shown in Figure 1.

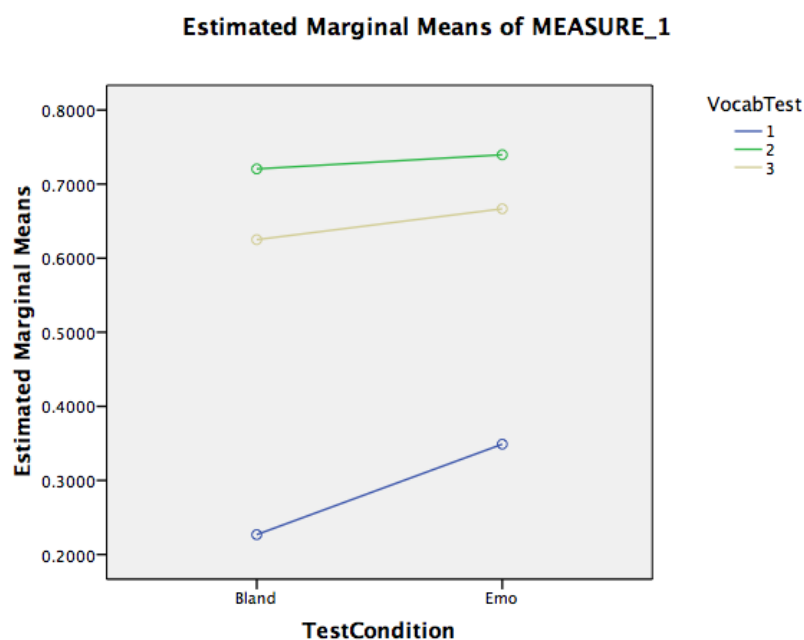


Figure 1. Plots of Vocabulary Test Mean Scores (1=Pre-test, 2=Post-test, 3=Delayed Post-test)

Tempting though it might be to dismiss the results as being due to the audio recording not necessarily invoking an emotional response, the subjective reporting of the subjects showed a correlation ($p = .022$) between the test condition and the response to the question, “Did you find the story to be emotionally engaging?” There was also a strong correlation ($p = .002$) between the test condition and the response to the question, “Are you interested in finding out what happens between Joyce and Jean-Pierre?”

7 Discussion

There may indeed be a neurochemical relationship between emotion and memory, but such an effect was not shown here to improve the acquisition of L2 vocabulary. Although it's frequently disappointing when one's hypothesis is not supported, given the complexity of how memory works as well as the second language acquisition process, it is perhaps not surprising in this case.

Most of the lessons learned from this study had less to do with the hypothesis than issues with experimental design, so the following sections focus on some insights here.

7.1 The Vocabulary List

In hindsight, the lexical items which were used to score the study should have been more thoroughly vetted. Some of the words were remembered at a very high rate. Two of these were false friends ("*massifs*" and "*derange*"). These words led to many incorrect guesses and possibly skewed scores on the pre-test.

7.2 SLA and Motivation

It was encouraging that the "emotional" reading condition significantly correlated with a higher level of interest in what was going to happen next in the story. Although this was not in turn correlated with a higher level of vocabulary acquisition, a foreign language teacher might find such interest quite significant. Curiosity and interest might lead students to be motivated to read more stories from the same source, which would likely improve their language learning overall. This is an entirely different direction of research that might be fruitful to pursue.

8 Conclusion

The chemical response to emotion that the amygdala has on the activation of semantic memory may be not only too subtle to measure, but indeed too subtle to be worth trying to influence. It may be better to move a little further up the cognitive science chain, looking at memory effects that happen at a higher level, perhaps from a more psycholinguistic point of view.

Nonetheless there are certainly other and good reasons to continue to strive to build language learning materials which engage the mind and touch the spirit. Long before MRI's, before Pavlov, before even the written word was conceived, people have used the story form as a mnemonic device to convey cultural, historical, and moral information. It has its own structure, its own language. As Egan (n.d.) says, "The story insures memorization by investing the material to be

learned with the qualities that engage the imagination in the process of learning.”

Acknowledgements

Deepest thanks for this project go to Chantal Fournier, M.A., a graduate student in the Education Department of SFU an instructor and native speaker of French. I am grateful both for her time and expertise in recording the audio passages for both tests conditions, for allowing me to solicit participants from her intermediate-level French class and for encouraging her students to sign up.

Thanks to Dr. Yue Wang for providing the mentorship and support for this project. Thanks to Reem Alsadoon and Anne Rimrott for their feedback, suggestions, and moral support, and to Dr. Murray Munro for his helpful advice regarding the data analysis.

References

- Carter, T., Hardy, C. A., & Hardy, J. C. (2001). Latin Vocabulary Acquisition: An Experiment Using Information-Processing Techniques of Chunking and Imagery. *Journal of Instructional Psychology*, 28(4), 225-228.
- Egan, K. (n.d.). Memory, imagination, and learning. Retrieved September 17, 2009, from <http://www.educ.sfu.ca/kegan/MemoryIm.html>.
- LaBar, K. (2009). Imaging emotional influences on learning and memory. In F. Rösler, C. Ranganath, B. Röder, & R. H. Kluwe (Eds.), *Neuroimaging of Human Memory* (pp. 331-348). Oxford: Oxford University Press.
- McGaugh, J. L. (2004). The amygdala modulates the consolidation of memories of emotionally arousing experiences. *Annual Review of Neuroscience [Annu. Rev. Neurosci.]*, Vol. 27, 27, 1-28.
- Min, H. (2008). EFL Vocabulary Acquisition and Retention: Reading Plus Vocabulary Enhancement Activities and Narrow Reading. *Language Learning*, 58(1), 73-115.
- Pavlov, I. (1906). The scientific investigation of the psychical faculties or processes in higher animals. *Science*, 24, 613-619.
- Rott, S. (1999). The Effect of Exposure Frequency on Intermediate Language Learners' Incidental Vocabulary Acquisition and Retention Through Reading. *Studies in Second Language Acquisition*, 21(04), 589-619.
- Squire, L. R. (1986). Mechanisms of Memory. *Science*, 232(4758), 1612-1619.
- Wesche, M. B., & Paribakht, T. S. (1996). Assessing Second Language Vocabulary Knowledge: Depth versus Breadth. *The Canadian Modern Language Review/La Revue canadienne des langues vivantes*, 53(1), 13-40.

Zaid, M. A. (2009). A Comparison of Inferencing and Meaning-Guessing of New Lexicon in Context versus Non-Context Vocabulary Presentation. *The Reading Matrix: An International Online Journal*, 9(1), 56-66.

Exploring syntactic categories in a construction grammar framework

Christina Galeano
Simon Fraser University

Within a construction grammar framework, evidence is provided for the idea that syntactic structures are constructions. Syntactic categories such as NP and VP are posited to yield higher representations of meaning beyond the simple sum of their constituents, which fits the general description of a construction. NPs and VPs are analyzed as contributing a conceptual meaning of “grounding”, in accord with Langacker’s grounding theory. Furthermore, IP represents a grounded proposition, which is ultimately utilized by the more complex “question construction” via conceptual inheritance. Conceptual inheritance between deep and surface structure is explored for question constructions. The ultimate idea is that base-generated and “derived” syntactic categories are not related by pure structural movement. Rather, their relation stems from common conceptual representations, with additional concept representations for the derived category.

1 Central ideas

Over the last few years, there has been renewed interest in a cognitive linguistic framework for defining human language, as set out by researchers like Langacker and Goldberg, to name a couple. The central theme behind the cognitive linguistic framework is that every linguistic form correlates to some sort of meaning. This idea is particularly relevant to the traditional domain of syntax, where we might wonder whether syntactic categories can be considered linguistic forms as well. By synthesizing the work of the above-mentioned authors, I will show that syntactic categories are indeed forms, as they render meaning correlates. In particular, I will discuss how syntactic categories are a particular type of form known as a construction, following the work of Adele Goldberg’s Construction Grammar theory. I will use Goldberg’s theory in conjunction with Langacker’s theory of grounding to offer an alternative account for so-called “derived” syntactic categories (such as those categories found in questions, thought to arise from movement). It is my hope that this analysis will aid in the overall goal of defining a “cognitive grammar”.

2 What is a construction?

In her theory of construction grammar, Adele Goldberg posits that all linguistic forms are constructions (Goldberg, 1995). Since, in a cognitive linguistic framework, all forms correlate to some sort of construed meaning, constructions correlate to meaning. “Constructions” can be taken to mean any salient form where some sort of representation of meaning is construed. Examples of different types of constructions are shown in the figure below.

Construction	Form/Example	Function
Morpheme	<i>Anti-, pre-, -ing</i>	
Word	<i>Avocado, anaconda, and</i>	
Complex word	<i>Daredevil, shoo-in</i>	
Idiom-partially filled	<i>Jog (someone's) memory</i>	
Ditransitive Construction	<i>Sub [V Obj1 Obj2]</i>	Transfer

Figure 1. Representatives of different construction types. Function is labeled where it is not immediately identifiable. (Goldberg 220)

As can be seen from the figure, constructions vary in size and complexity, where even words and morphemes are considered constructions. The important thing to note here is that the meaning of the construction comes from the construction itself as a whole. For example, Goldberg argues that the “ditransitive construction” above provides a meaning of “transfer” as a whole. This construction (V Obj1 Obj2) is what is responsible for our ability to understand both simple sentences like “pass me a wrench” alongside sentences like “cry me a river”. The idea here is that both sentences employ a ditransitive construction that contains the meaning of “transfer.” As such, metaphors and idioms that employ this construction can also be understood due to the construction alone, and not just by the individual lexical items contained within.

Another important aspect of the constructions is that each one yields a meaning representation that is more than just the sum of its constituent elements, or more than any inherent properties of the element itself. The “synergistic

effect” of constructions is exemplified by Langacker, who asks us to consider three words: “boy” “girl”, and “like” (Langacker, 1991). If we just had these words in isolation-- “boy girl like”-- there could be a number of different meanings. It could mean “the boy likes the girl”, “the girl might like the boy”, “the girl liked the boy”, etc. However, in arranging these in a particular configuration, say “the boy like the girl”¹ (along with adding articles), we gain a greater meaning, which is more than just the sum of the elements in question. How does this work? For starters, we get the notion of a NP when we can combine “girl” with “the” in the correct order. The same goes for “boy”. Similarly, when the word “like” is followed by a NP, a VP results.

3 Can syntactic categories be considered constructions?

From Langacker’s example, we see that the syntactic categories NP and VP are salient forms that have some sort of construed meaning. Furthermore, NP and VP both denote more abstract representations than just the sum of their constituent elements. These representations cannot be predicted from the constituents in any way. This idea begs the question of whether syntactic categories can also be considered constructions as well, and subsequently, what meaning they might correlate to.

The main question we ask is what meaning is construed by NP and VP constructions. Though the answer to this question is not certain, Langacker posits that a process called grounding yields these categories. Grounding is the process of fixing conceptual image schemas in place and time for actions (Langacker, 1987). Therefore, the categories NP and VP provide additional meaning of “entity or action grounded in space or time” when they are construed. To see clearly how this works, take “boy”. “Boy” is not grounded until it is put with an article—a, the, etc². Grounding, and the NP category that results, thus serves the function of yielding a particular type of representational schema for this entity. Similarly “like” alone does not acquire the higher category representation of “verb: action” until it’s placed into some sort of proper grounding construction, such as between a subject and an object. If it were not for constructions that ground linguistic elements, we would get a verbal representation schema from ‘like’ in this construction as well: ‘the boy the girl

¹ The inflectional suffix –s is left out because it is considered to be agreement that expresses redundant quantity information about the subject. I will address redundancies later.

² In languages that do not have articles, the noun itself comes with a representation for groundedness “built in”, which English does not have. For a more detailed explanation of definiteness/indefinite articles and how they ground, see Langacker and Fauconnier.

like’. However, native English speakers do not get a clear verbal representation, as this particular construction doesn’t exist in English to ground ‘like’ in time. Therefore, it is the construction itself that yields the higher representational meaning, and this representation is greater than just the sum of its parts.

From the construed meaning of the NP and VP categories, how do we arrive at the total meaning given by “the boy like the girl”? Langacker does not address the notion of the sentence itself as a whole being a syntactic category construction. In combining NP and VP, we get a higher representational notion of yet another category construction. This construction is traditionally designated as IP, or the sentential level of representation. In construing the entire sentence construction “the boy likes the girl”, we inevitably end up with a notion like ‘directional grounded event (like) from one grounded participant to another.’ This meaning cannot be predicted from the constituent NP and VP themselves, nor from the semantics of the word-level constructions beneath them, so it is worthwhile to consider this “propositional/IP level” as a construction too.

4 Constructions all the way down

Goldberg argues that human language grammars can be defined by an interconnected network of constructions from various levels. Larger constructions can contain smaller, simpler constructions for meaning, such as IP containing NP and VP within it. The idea that larger constructions can house smaller ones is what Goldberg terms “constructions all the way down” (Goldberg, 2003). As an example, she shows the multilayered and embedded meaning constructions involved in the sentence “What did Liza buy the child”.

1	2	3	4	5	6	7
1. Words	[<i>What</i>	<i>did</i>	<i>Liza</i>	<i>buy</i>	<i>the</i>	<i>child?</i>]
2. Ditransitive construction :	----			-----		
3. Question construction :						
4. Subject-Auxiliary inversion construction:		-----				
5. VP construction				-----		
6. NP construction	----		----		-----	

Figure 2. An expression, or ‘construct’, that is a combination of constructions shown in row 1, coded (with dashes) to the appropriate parts of the expression (VP, Verb-Phrase; NP, Noun-Phrase) (Goldberg, 2003, p. 221).

Here, we see an example of various levels of constructions interconnected with one another. At the lowest level, there are words/morphemes (which are themselves constructions). When the words are concatenated into certain

configurations, such as “the child”, another representation manifests, one that we typically designate by NP, so Goldberg calls it an NP construction. From Langacker’s example, we saw that the representation of NP usually indicates a meaning of groundedness of an entity. Therefore, we consider “Liza” and “what” to be inherently grounded, whereas the grounding of “child” happens when it is concatenated with “the”.

In construing the different lexical items [*Liza, buy, the, child, what, did*], there are a number of different constructions that we can make beyond just the NP and the VP constructions. For example, NPs gain the additional meaning of “object” when placed into a “ditransitive construction”: V Obj1 Obj2—“Buy the child what”, in this case. The whole ditransitive construction gives a meaning of “transfer”. Still further, there is a “question construction”, taken from the whole utterance with “what” at the beginning. This too is considered a construction, as it builds an additional layer of meaning—the notion of a question. Larger constructions inherit the properties of smaller ones. That is, the overall question construction in the example above inherits the properties of the smaller ones within, such as the subject-auxiliary construction, the NP construction, the VP construction, etc.

It is important to reiterate here that the meaning of a construction comes from the construction itself. Smaller constructions combine in a certain meaningful way to yield a new construction. Their combination results in a new representational meaning layer beyond just the sum of the lower constructions it contains.

5 Accounting for Syntactic Categories thought to Arise from Movement: Differing Conceptual Complexity

We saw that constructions can be embedded within constructions. However, Goldberg makes the claim that the two sentences “Liza did buy the child what” and “What did Liza buy the child” are two different constructions (Goldberg 2003). This idea opposes the generative theory, where one is structurally derived from the other through movement. In the generative framework, the syntactic category CP is thought to be created for questions when we move from the deep structure (Liza did buy the child what) to a surface structure for the question (what did Liza buy the child). The idea is that we access the base structure first, and then go from there to the target structure by moving key elements. However, Goldberg’s model dictates that different constructions, no matter how complex they are and how much they seem to be based off of one another, are base-generated *in situ*. That means that “What did Liza buy the child” and “Liza did buy the child what” are both considered to be base-generated exactly as their surface structures appear.

At first glance, it is difficult to think that these two constructions are not

related to one another, which is what makes the generative rule of movement from a deep to a surface structure so attractive. However, Goldberg's theory implies that these are two separate constructions, despite how similar they are. If they are not derived from purely structural movement, what else could be responsible for their similarity? Though Goldberg says these are two different constructions, it doesn't necessarily entail that they are two *unrelated* constructions. The difference between her theory and generative grammar theories, though, is that these constructions are considered to be related via *conceptual* derivation, rather than being related through pure structural derivation. With conceptual derivation, the meaning in one construction is inherited by the meaning of a larger encompassing construction, as we saw before. For example, the overall question construction "What did Liza buy the child" inherits the meaning of the constructions contained within it, like the subject-auxiliary construction and the ditransitive construction.

Let's consider how conceptual derivation would look in IP and question constructions, given our ideas about IP grounding. Recall the claim that IP/propositional constructions represent a grounded situation, with grounded entities and actions in space and time. However, when we employ a question construction, we construe an additional layer of meaning to the original proposition. The additional meaning that is construed is that of making part of the construction virtual or ungrounded (symbolized by 'what' in this case). The conceptual inheritance of constructions is more salient in the example "do you swing dance", where the grounded proposition (you swing dance) is made virtual in space and time by being used in the CP question construction³. In other words, the question construction has the effect of "ungrounding" the entire proposition/IP.

In cases like the IP and question constructions above ("Liza did buy the child what" and "What did Liza buy the child") Goldbeg says these are two different overall constructions. However, they employ many of the same smaller constituents. Rather than thinking that this comes about through movement from the deep structure, we can offer a conceptual inheritance interpretation of the similarities instead. If we construe one situation as a basic proposition, we use the IP construction. If, however, we construe a basic proposition, along with it not being grounded in space/time, we use the question construction (which inherits the IP construction). In other words, two constructions can be related conceptually (where one is the basic proposition, and the other is the proposition plus the added meaning of "virtual/ungrounded" element), which is enough to account for their similarities.

³ This ability to establish spaces where events and participants are not necessarily in the "here and now" is a crucial element to displacement, which gives rise to a number of syntactic categories, and lends incredible expressive power to human language.

6 Conclusion

In a cognitive linguistic framework, we define all linguistic forms as constructions, which correlate to some sort of construed meaning. Under this approach, the grammar of a language is defined by interconnected constructions for meaning that occur at many different levels (“constructions all the way down” according to Goldberg). The question was whether syntactic categories can be considered constructions as well, and how they are construed and represented. We saw evidence for the idea that syntactic categories like NP, VP, and IP are constructions, as they reflect the multilayered construal of meaning just as other constructions do. Syntactic categories that are considered to be structurally derived, such as those used in question formation, actually represent complex constructions that inherit the meaning of lower-level constructions. Thus, Goldberg’s hypothesis of different constructions for seemingly-related sentences is not necessarily disproven by the existence of conceptual inheritance. In investigating how syntactic categories are construed and constructed, we get at broader questions of whether syntax is autonomous, or whether it is driven by general cognitive construals of meaning, such that we can consider syntactic categories to be constructions.

References

- Carey, S. (2009). *The origin of concepts*. New York: Oxford University Press.
- Fauconnier, G, & Turner, M. (1994). *Conceptual projection and middle spaces*. Cognitive Science Technical Report, 9401. Retrieved from http://www-cogsci.ucsd.edu/index.php?cat=research&page=publications-tech_report
- Goldberg, A. (2003). Constructions: a new theoretical approach to language. *TRENDS in Cognitive Sciences*, 7(5), 219-224.
- Goldberg, A. (1995). *Constructions: a construction grammar approach to argument structure*. Chicago: University of Chicago Press
- Langacker, R. (1991). *Foundations of cognitive grammar*. Stanford: Stanford University Press.
- Langacker, R. (1987). Nouns and verbs. *Language*, 63(1), 53-94.

The cognitive semantics of Chinese motion / directional verbs

Hui Yin

Xiamen University of Technology

This study investigates basic and extended meanings of Chinese motion/directional verbs, which are used frequently in metaphorical extensions. By looking at metaphorical uses in language, I hope to contribute to our understanding of the human conceptual system, which is assumed to be largely metaphorical in nature. One motion/directional verb in Chinese can combine with another to form a compound. Motion/directional verbs/compounds easily enter into a variety of larger constructions and they are frequently used with different senses. Cognitive Grammar (Langacker, 1987, 1988, 1991 & 2008) assumes that a single word is routinely polysemous in its various linguistic expressions. This paper will show that various senses of Chinese motion/directional verbs are actually related. I assume that extensions from the spatial domain to the temporal domain and from the concrete domain to the abstract domain could be found across motion/directional verbs. I will look at motivations behind extension patterns by addressing questions related to pairs of motion/directional verbs. Some verbs used frequently with one paired motion/directional verb are not likely to be compounded with the other due to their semantic (in)compatibility (Yin, 2010). Semantic and functional extensions may be based on a certain component of the total meaning of a lexical item while the other aspects of the meaning are non-salient. I argue that all the extensions are not random but motivated.

1 Semantic extensions

Semantic extensions of a linguistic item from its existing meaning to a new meaning is motivated by a relation or by some commonalities that language users perceive between the old and the new designata (Lichtenberk, 1991). Lakoff (1987) claims that semantic and functional extensions are not completely arbitrary. If an extension takes place, it usually makes sense. Langacker (1987) proposes that not all the facets of the meaning of a linguistic item are equally prominent. Some aspects of the total meaning of the item are more central than others. The relatively central aspects are the ones which are usually thought of as the meaning of the item. However, such facets do not exhaust the total meaning. Implications based on the prominent aspects of the meaning are subsumed in the

total meaning of a given item (Lichtenberk, 1991). Both the prominent aspects of the meaning and the implications based on them may underlie a semantic or functional extension. When different components or substructures are imposed on a base, different senses of a lexical item or construction will be brought about. Thus, semantic or functional extensions may be based on a certain aspect of the total meaning of a linguistic item but the other components of the meaning are not salient in such extensions.

The subjective and open-ended nature of meaning is promoted in the works of functional linguists (e.g. Jackendoff, 1983; Lakoff, 1987; Langacker, 1987 & 1988; Lichtenberk, 1991). Lichtenberk (1991) claims that the meanings of linguistic expressions are not “mere reflections of the properties of phenomena; rather, they reflect our conceptualization of the phenomena, and in that sense they are subjective” (477). This subjective and open-ended nature of meanings enables us to apply linguistic items to new experiences, “to express newly perceived relations among phenomena and thus to form new categories or to alter the make-up of existing categories, and to relate to each other phenomena from different cognitive domains” (Lichtenberk, 1991: 477).

It is human conceptualization (namely metaphor and metonymy) that provides language users cognitive instruments to use concepts from one cognitive domain of experience to conceptualize another cognitive domain of experience (Black, 1979; Reddy, 1979; Lakoff & Johnson, 1980; Lakoff, 1987; Lichtenberk, 1991). For a semantic or functional extension to occur through human conceptualization, there should be some kind of prior perception of a commonality between phenomena from different cognitive domains (Lichtenberk, 1991). The reason for a given conceptual domain to be organized in terms of another domain is not that human beings conceptualize the former in terms of the latter, but that speakers have the metaphorical ability to conceptual similar content in different cognitive domains (Jackendoff, 1983; Langacker, 1987; Shen 1995). Thus, domain selection or shifting (e. g. extending from the spatial domain to the temporal domain on some perceived commonalities) plays an important role in motivating semantic or functional extensions of linguistic items. In the case of Chinese motion/directional verbs, it will be shown that the various semantic and functional extensions are motivated through human conceptualization such as metaphor.

2 Basic and extended meanings of motion/directional verbs

Motion/directional verbs such as *lai* ‘come’ and *qu* ‘go’ can combine with other motion/directional verbs (e.g. *shang* ‘ascend, up’, *xia* ‘descend, down’, *jin* ‘enter, in’, *chu* ‘exit, out’) to form compounds (e.g. *chulai* ‘come out’, *xiaqu* ‘go down’). Motion/directional verbs and their compounds easily enter into various linguistic constructions. They are frequently used with different senses in Chinese. The

traditional analysis of motion/directional verbs often involves mere itemization or just listing of their various senses. Cognitive Grammar assumes that a linguistic item is polysemous in nature in its various linguistic expressions and that various senses of a single word are not unrelated.

The basic meaning of motion/directional verbs such as *lai* ‘come’ and *qu* ‘go’ has a few essential semantic components—the deictic center, movement, source, destination and path (trajectory). Motion/directional verbs like *lai* ‘come’ and *qu* ‘go’ certainly can denote real concrete movement through space as (1) and (2) show.

- (1) Ta lai le Jianada.
 3sg come PERFECTIVE Canada
 ‘S/he came to Canada.’

- (2) Ta qu le xuexiao.
 3sg go PERFECTIVE school
 ‘S/he went to school.’

The motion/directional verbs *lai* ‘come’ and *qu* ‘go’ in (1) and (2) involve the theme moving toward or away from the speaker's position (vantage position) along a spatial path. Motion/directional verbs in Chinese can not only express real motion but also indicate direction and other various extended meanings. It can be expected that extensions from the spatial domain to the temporal domain and from the concrete domain to the abstract domain could be found across Chinese motion/directional verbs.

Besides being used to express real motion, motion/directional verbs can be used to indicate direction as (3) and (4) illustrate.

- (3) Ta pao lai le.
 3sg run come PERFECTIVE
 ‘S/he ran over here.’

- (4) Ta pao qu le.
 3sg run go PERFECTIVE
 ‘S/he ran over there.’

Lai ‘come’ and *qu* ‘go’ in (3) and (4) do not denote real motion, but indicate direction to or away from the deictic center. Such an extension is motivated by the deictic sense of the core meaning of *lai* ‘come’ or *qu* ‘go’.

In addition to expressing motion and indicating direction, verbs *lai* ‘come’ or *qu* ‘go’ can be used to signify past or future time as in (5) and (6).

- (5) lai nian
 come year
 ‘the coming year’

- (6) qu nian
 go year
 ‘last year’

Semantic extensions of motion/directional verbs from the spatial domain to the temporal domain are exemplified in (5) and (6). Extensions of motion/directional verbs to indicate past or future time is based on the metaphor: PASSAGE OF TIME IS MOVEMENT IN SPACE, which is a subtype of the metaphor TIME IS SPACE, (e.g. Traugott, 1988) and on our conceptualization of time according to which the past moves away from us and the future moves toward us (Lichtenberk, 1991). Fillmore (1997) suggests that time can be thought of as a succession of events and our relation to it can be regarded in one of the two ways: either time moves by us or it is human beings who move along the succession of events. In either case, we think of ourselves as facing the future and it is the conceptualization of time as moving by us that motivates the use of motion/directional verbs to indicate past or future time.

Extensions of motion/directional verbs can be made not only from the spatial domain to the temporal domain but also from a concrete domain to an abstract domain as (7) indicates.

- (7) tiba ta shanglai
 raise him ascend-come
 ‘promote him’

In (7), *shanglai* ‘ascend-come’ does not express spatial movement or indicate direction but is used figuratively, that is, come up high in social (or administrative) position. In this example, the meaning of the motion/directional verb *shanglai* has been extended to an abstract domain.

Motion/directional verbs such as *lai* ‘come’ can also be used as a mental intention verb as in (8). This is another case of semantic extensions from a physical domain to an abstract domain.

- (8) Ta lai mai liwu.
 3sg come buy gift
 ‘S/he’s gonna buy a gift.’

Lai ‘come’ in (8) does not indicate objective motion but signify a kind of mental intention. The domain for the objective motion is physical space while the

one for the verb *lai* ‘come’ used as an intention verb is mental space. The speaker takes the subject’s intended activity as a “destination” and views the process as the subject progressing along a mental path (Shen, 1995).

In Chinese, some of the motion/directional verbs can be used to express aspectual meanings. For example, the compound *qilai* ‘rise-come’ can be used to signal the aspectual meaning of inceptiveness as (9) and (10) shows.

- (9) Ta xiao le *qilai*.
 3sg laugh PERFECTIVE rise-come
 ‘S/he began to laugh.’
- (10) Ta *turan* ku le *qilai*.
 3sg suddenly cry PERFECTIVE rise-come
 ‘S/he began to cry suddenly.’

In (9) and (10), *qilai* does not specify the direction or endpoint of real motion, but instead indicates that a situation has just started and will continue as in *xiao qilai* ‘began to laugh’ and *ku qilai* ‘began to cry’. In these two examples, the motion/directional verb *qilai* indicates the inceptive phase of (usually) affective or emotive events such as *xiao* ‘smile/laugh’ and *ku* ‘cry’. As in *xiao qilai* ‘began to laugh’, *qilai* clearly does not mean ‘rise-come’ to express upward movement. It should, thus, be treated as an idiosyncratic lexical item because the compound takes on a construction-specific meaning. Here, this motion/directional verb has been extended to function as an inceptive marker.

The inceptive sense of *qilai* ‘rise-come’ in (9) and (10) is motivated by the PATH OF EVENT IS TRAJECTORY OF MOTION metaphor. If we look at the developmental path of an event as the trajectory of motion, this use can be regarded as an extension of a motion/directional verb whose initial portion of the trajectory is profiled while the later stages of the event are unspecified and thus, non-salient.

3 Semantic (in)compatibility

Some verbs used quite frequently with one paired motion/directional verb are not likely to be compounded with the other due to their semantic (in)compatibility with either of the two motion/directional verbs (such as *lai* ‘come’ vs. *qu* ‘go’, *chulai* ‘come out’ vs. *chuqu* ‘go out’). For example, *shi* ‘lose’ collocates quite easily with *qu* ‘go’ but not with *lai* ‘come’ as (11) and (12) indicate.

- (11) Ta shiqu le yi wei pengyou.
 3sg lose-go PERFECTIVE one CLASSIFIER friend
 ‘S/he lost a friend.’

- (12) *Ta shilai le yi wei pengyou.
 3sg lose-come PERFECTIVE one CLASSIFIER friend

Once someone has lost something the thing is away from her/him and it is beyond the person's reach at that time. Therefore, the meaning of losing is quite compatible with the directional meaning of being away from someone. The sentence in (12) is ungrammatical since the meaning of *shi* 'lose' contravenes the semantics of *lai* 'come' which indicates general motion toward the speaker.

In Chinese, the verb *chu* 'exit' is frequently compounded with *lai* 'come' rather than with *qu* 'go' to indicate result. This kind of usage seems to be related to the semantics of individual verbs as well. When the motion/directional verb *chulai* 'come out' is used with a motion verb, this compound verb specifies the direction of motion. However, when it is combined with a non-motion verb, it is usually used idiomatically or metaphorically to express a kind of event phase meaning such as "the result-state and completion/finality of an action" (Xiao & McEnery 2004: 165).

- (13) Ta yi fu hua hua chulai le.
 3sg one CLASSIFIER picture draw exit-come PERFECTIVE
 'S/he has finished drawing a picture.'

In (13), *hua* 'draw' is not a motion verb and the directional constituent *chulai* 'come out' does not indicate a spatial trajectory. It expresses the success of obtaining a result. It also adds a telic reading to an otherwise atelic verb. Here, *chulai* 'come out' has been extended to function as a kind of resultative marker.

Why is *chulai* 'come out' rather than *chuqu* 'go out' more likely to indicate both a final location as well as a resulting state? The analysis of the semantics of *lai* 'come' and *qu* 'go' may shed some light on this phenomenon.

Motion can be characterized as having a starting point and an ending point, an "origin" (source) and "destination" (goal). The intervening states between the source and goal can be called "path" or "trajectory" (Fillmore 1997). But the expression of motion is usually strongly deictic. Deixis is the linguistic phenomenon by which speakers impose an explicit or implicit reference point, usually anchored to the position of the viewer/speaker. Chinese *lai* 'come' and *qu* 'go' are strongly deictic, that is, they reference motion along a path in terms of the location of the speaker—whether the speaker is at the start (origin) or end (goal) of the path. The verb *lai* 'come' denotes motion towards the speaker or motion from the viewpoint of the subject of the sentence who is at the end destination (goal) of a path. In contrast, *qu* 'go' denotes motion away from the speaker or motion from the viewpoint of the subject of the sentence who is at the starting point (source) of a path. Usually the motion denoted by literal *lai* 'come'

is strongly bounded by the goal endpoint because the verb is deictic and strongly references the fact that the speaker or the subject of the sentence is at the end of the path. In human communication, action is often construed metaphorically like motion along a path. When motion/directional verbs are used figuratively not to express movement along a path but to indicate the unfolding of an event, they frequently take on aspectual properties, signaling degree of event realization rather than location along the path.

Motion in the real world is a basic human concept and organizing schema for a host of more abstract expressions. A schema in cognitive linguistics refers to a recurring structure within our cognitive processes which establishes patterns of understanding and reasoning and it can be considered an embodied prelinguistic structure of experience to motivate conceptual metaphor mappings (Lakoff, 1987). Spatial motion involves space and time, which are basic cognitive domains. Physical motion in the spatial domain is so prominent and productive as a cognitive schema that its linguistic expression gives rise to many non-literal or “fictive” motion expressions, in which no concrete movement of objects is involved (Talmy 2000). This is certainly true for *lai* and *qu* in Chinese.

In Chinese, *lai* ‘come’ marks centripetal motion and *qu* ‘go’ marks centrifugal. In the basic meaning of *lai* ‘come’, the destination (goal) is profiled (because it is where the speaker is and is highly salient), while in the central meaning of *qu* ‘go’, the profiled element does not usually include the destination (because motion away from the speaker need not take any set direction nor include a final goal). The extension of the verb *lai* ‘come’ to indicate a result state is motivated by domain shifting from the spatial domain to a fictive and abstract domain on the basis of some perceived commonalities and it is largely based on the metaphor OBTAINING RESULTS ARE REACHING DESTINATIONS (Lakoff & Johnson 1980; Lichtenberk 1991). This may provide an explanation why Chinese is much more likely to use *chulai* ‘come out’ rather than *chuqu* ‘go out’ to signal a resulting state or goal.

4 Conclusion

This paper has addressed basic and extended meanings of Chinese motion/directional verbs, which are used frequently in metaphorical extensions. It has been shown that semantic and functional extensions of Chinese motion/directional verbs are related to their basic meanings. Semantic and functional extensions could be based on some component of the total meaning of a linguistic item while other aspects of its meaning are not prominent in such extensions. Extensions of Chinese motion/directional verbs are often motivated by domain shifting from the spatial domain to the temporal domain or from the spatial domain to a fictive and abstract domain on the basis of some perceived commonalities. This paper has demonstrated that extensions of Chinese

motion/directional verbs are not random but cognitively motivated through human conceptualization.

References

- Black, M. (1979). More about metaphor. In Ortony (ed.), *Metaphor and thought*. Cambridge: Cambridge University Press.
- Fillmore, C. J. (1997). *Santa Cruz lectures on deixis*. CSL Publications: Stanford, CA.
- Jackendoff, R. (1983). *Semantics and cognition*. Cambridge, Massachusetts: MIT Press.
- Lakoff, G. & Mark J. (1980). *Metaphors we live by*. Chicago & London: University of Chicago Press.
- Lakoff, G. (1987). *Women, fire, and dangerous things: What categories reveal about the mind*. Chicago: University of Chicago.
- Langacker, R. W. (1987). *Foundations of Cognitive Grammar. Vol. 1, Theoretical prerequisites*. Stanford: Stanford University Press.
- _____. (1988). A view of linguistic semantics. In Brygida Rudzka-Ostyn (ed.), *Topics in Cognitive Linguistics*, 49-90. Amsterdam: John Benjamins.
- _____. (1991). *Foundations of Cognitive Grammar. Vol. 2, Descriptive application*. Stanford: Stanford University Press.
- _____. (2008). *Cognitive grammar: A basic introduction*. Oxford, U.K. & New York: Oxford University Press.
- Lichtenberk, F. (1991). Semantic change and heterosemy in grammaticalization. *Language*, 67: 475-509.
- Reddy, M. (1979). The conduit metaphor: A case of frame conflict in our language about language. In Ortony (ed.), *Metaphor and thought*. Cambridge: Cambridge University Press, 284-324.
- Shen, Y. M. (1995). The semantics of the Chinese verb “come”. In Eugene H. Casad (ed.), *Cognitive linguistics in the Redwoods: The expansion of a new paradigm in linguistics*, 507-540. Berlin, Federal Republic Germany: Walter de Gruyter & Co.
- Talmy, L. (2000). *Toward a cognitive semantics*. Cambridge, Mass.: MIT Press.
- Traugott, E. C. (1988). Pragmatic strengthening and grammaticalization. *Proceedings of the 14th Annual Meeting of the Berkeley Linguistics Society*: 406-416.
- Xiao, R. & T. McEnery. 2004. *Aspect in Mandarin Chinese: A corpus-based study*. (Studies in Language Companion Series 73.) Amsterdam: John Benjamins.
- Yin, H. (2010). *A cognitive approach to multi-verb constructions in Mandarin Chinese*. PhD dissertation. University of Alberta.

A linguistic analysis of humor: A look at *Seinfeld*

Elizabeth Magnotta and Alexandra Strohl
University of Montana

Using the Incongruity Theory of humor (Attardo, 2001; Morreall, 1983; Schwarz, 2010) and the Interactional Sociolinguistic Methodology of discourse analysis, we examine the incongruous elements, such as moral short-comings, ignorance, and impersonation used in *Seinfeld* to set up a situation conducive to humor. We analyze the contextualization cues used to support these incongruities, such as genre change, footing alteration, exaggeration, prosody, intonation, marked lexical choices. We present an examination of two scenes taken from the episodes, “The Marine Biologist” and “The Red Dot”. We identify the specific incongruities, and then formulate an in-depth analysis of the contextualization cues and how they are implemented, resulting in humor. Our research provides an original contribution to the field of linguistic studies of humor not only by using a new corpus of data, but by providing an analysis of the contextualization cues implemented to create humor, contributing to the linguistic field of research on humor.

1 Introduction

Humor can be created in various ways, and there are many theories explaining the mechanisms by which humor is created (Attardo, 2001). Our research addresses the specific issue of which contextualization cues (Gumperz, 1982) are used and how they are employed to create humor in the hit television show *Seinfeld*.

2 Background

For the scope of this research, we have adopted Paolos’s (1980) definition of humor that states that humor has two essential ingredients: incongruity and an appropriate emotional climate; terminology defined in section 3.1. Paolos iterates that these two ingredients are at once necessary and sufficient in creating humor.

Seinfeld has a unique standing in the realm of American pop culture. Hurd (2006) describes *Seinfeld*’s as the pivotal emergence of a phenomenon in the history American television sitcoms. The phenomenon being the remarkable success of *Seinfeld* and its extraordinary reign as one of America’s most popular sitcoms up to and including its ninth season. This is owed in part to its trans-

generational appeal as well as its ability to cross social, economic, and cultural boundaries in its target audience.

Linguistically, *Seinfeldisms*, the lingo, vocabulary, and phrases coined by the writers of the show, have taken on a life of their own within the American lexicon. This can be seen via direct incorporation with such forms and phrases as *master of your domain* and *yada yada yada*, and via re-analysis, where lexical items take on meanings derived from the original meaning and become productive in the language. Some examples of re-analysis of *Seinfeldisms* are *soup nazi* and *anti-dentite* which could potentially produce examples such as *grammar nazi*: someone who is strict about grammar, and *anti-grammarite*: someone who doesn't care for grammar. The amount of influence that *Seinfeld* has had on American culture is vast, making it a significant corpus for research.

Previous work on related topics include Schwarz's (2010) research on Jerry Seinfeld's stand-up comedy, and Karmen's (1998) research of comedy in television sitcoms. As far as we know, *Seinfeld* is a previously un-researched corpus.

3 Methodology

Assuming the Incongruity Theory (Paolos, 1980; Morreall, 1987; Schwarz, 2010) and the Interactional Sociolinguistic discourse analysis (Gumperz, 1982) as theoretical frameworks, we analyze the discourse from two clips of *Seinfeld* focusing on the following linguistic components used to create humor: genre changes, footing alterations, metaphors, exaggeration, moral short-comings and ignorance.

The Incongruity Theory claims that humor is created out of a violation of an expectation. For humor to result from this unexpected result, the event must have an appropriate emotional climate, comprised of the setting, characters, prior discourse, relationships of the characters, and the topic. Crucially, according to Morreall (1987), the unexpected result must fit within the setting of the given situation. Incongruities laid out under the Incongruity Theory include moral shortcomings, a violation of an understood social code; ignorance, a violation of understood knowledge; impersonation, pretending to be someone or something that you are not; physical deformities, a violation of how we view the way in which we ought to appear; and failed actions, a violation of the successful completion of an action. These incongruities along with an appropriate setting set up the climate in which humor is generated.

The Interactional Sociolinguistic Methodology for discourse analysis (Gumperz, 1982) focuses on the significance of social interactions in discourse; the way in which relationships are formed, power and hierarchies are negotiated, and how identities are built as components which influence the way in which speakers choose their words, structures, and prosodic elements. The way

speakers communicate is ultimately and significantly influenced by the social interaction itself and interlocutors have specific roles to play within these interactions. According to Gumperz (1982), contextualization cues are any linguistic feature that contributes to signaling understood knowledge and presupposition in a given context. Speakers then use contextualization cues to facilitate the meaning they want to convey, while listeners make inferences depending on their understanding of the situation, their relationship to the speaker and how each utterance relates to what precedes and follows it. Given these components of social interaction, the contextualization cues implemented in any given social interaction are context specific and depend heavily on the situation, the interlocutors relationship and previous discourse.

4 “The Marine Biologist”

The “The Marine Biologist” episode takes place at the beach and the coffee shop in which the characters of the show frequent. The characters in this scene are George, his girlfriend, Jerry, Kramer, Elaine, and the whale. In this episode, George meets a girl and tries to impress her by lying and claiming to be a marine biologist. While at the beach, they come across a suffering, beached whale. Having established himself as a marine biologist in his girlfriend’s eyes, George must continue in this role finding himself obliged to save the poor animal in order to keep up appearances. Surprisingly, he sets out to save the beached whale and succeeds.

Impersonation is the form of incongruity primarily used in “The Marine Biologist”. Impersonation is when something or someone seems to be something that they are not. The characters persona and the impersonated persona are viewed as opposites, not expected to go together, i.e. incongruous. A marine biologist is adventurous, self-motivated, and educated, while George is unemployed, lives with his parents, is unambitious, and doesn’t know a fish from a mammal. Following Paolos’s (1980) definition of humor these essential ingredients, the incongruity of impersonation and the appropriate emotional climate laid out in the scene, create humor because they both fit into the given context of the story line.

In the clip we analyze, George is recounting the story of the whale rescue to Jerry and Kramer, joined later by Elaine. We examine several layers of incongruity and the linguistic components that are implemented to help create them, and subsequently help create the humor.

4.1 Analysis

We focus on the various contextualization cues implemented to render the intended humorous result. The primary linguistic tool utilized to support and

solidify George's impersonation of a marine biologist is the genre change to a narrative style of discourse. We identify and analyze the contextualization cues implemented to support this genre change.

The clip starts out with 20 seconds without dialogue signaling the segue into George's epic tale. Some of the contextualization cues under analysis here are prosody, pitch change and intonation.

[20 seconds silence]
1 *So I started to walk into the water*

Figure 1.

In line 1, Figure 1, the long pause in dialogue is utilized to build up the anticipation and importance of what is about to be proclaimed; the silence before a story of epic grandeur. When George starts his story, line 1, the timbre of his voice lowers, his voice exhibits very little change in pitch, and the contour of his speech becomes melodic. Working together these contextualization cues enable George's genre change to a narrative style of speech.

The next contextualization cue we analyze that supports George's genre change to a narrative discourse style is the use of marked lexical choices (Gumperz, 1982).

8 *h'I > I don't know if it was **divine intervention** or the **kinship of***
 all living things
17 ***THE SEA WAS ↑ANGRY THAT DAY MY ↓FRIENDS***
38 *I I could barely see from the waves [**crashing down upon me(.)**]*

Figure 2.

In the examples in Figure 2, George's explicit use of words not commonly used in every day discourse in American society, like **divine intervention**, **kinship of all living things** and **crashing down upon me**, signal a change in discourse style allowing the listener to infer that, through the use of these lexical choices, the discourse style has been altered from that of the preceding dialogue. These contextualization cues further support George's genre change to a narrative style of discourse, which in turn supports the incongruity of George's impersonation of a marine biologist.

Another illustrative example of the contextualization cues utilized to support George's role as an impersonator is footing change, a process through which a speaker outwardly expresses an altered identity or altered relationship with the listener (Goffman, 1981). George alters his relation to the listeners in the following example, Figure 3:

9 *things< but I tell you Jerry AT THAT MOMENT (1.0)*
 10 *I was a ↓marine biologist [(2.0)]*

Figure 3.

In his moment of heroism, George is not merely playing the role, but becomes fully convinced of himself in that role by explicitly stating, line 10, his change in relationship to the listener, which is both the audience and Jerry.

Finally, there is an additional layer of incongruity that encompasses the whole show, and ultimately sets up the entire scene. George is a failure in so many regards; evidenced by him being unemployed and living with his parents, but here, in this moment, he is a success. He succeeds in saving the mammal's life; unexpected, but a fitting result given the layout of the show. It is this incongruity between failure and success, George's personality, and his successful resolution to the situation that allows George to employ all of these linguistic components in a convincing way.

4.2 Conclusion

Our analysis pinpoints several of the linguistic elements which enable George to convincingly impersonate a marine biologist creating the humor of the scene. Through our analysis of "The Marine Biologist", the incongruity impersonation is made apparent as well as the linguistic tools, used by the speaker to signal meaning and how contextualization cues are interpreted by the listener, in order to come to an understanding of the intended meaning of the utterances given the surrounding discourse and context of the scene. From a change in genre, to his marked lexical choices, and to the over-arching incongruous concept of George as a failure in all aspects of life contrasting with his unexpected success as a marine biologist, the contextualization cues are tools that are used in this scene serve as effective linguistic tools highlighting and enhancing the incongruities put in place through context and set up.

5 "The Red Dot"

The setting for this scene is George's workplace, and the characters involved are George, his boss, and the office cleaning lady. The scene takes place in the boss's office, where George is confronted about alleged inappropriate conduct: having sex with the office cleaning lady on his desk in his office.

The types of incongruities we focus on in this episode are moral shortcomings and ignorance. The act of engaging in sexual intercourse in an office workplace is an understood violation of American moral codes of conduct,

as proofed by the public's reaction to the "Zipper Gate" scandal: alleged 'sexual relations' between acting President Bill Clinton and intern Monica Lewinsky. The second incongruity, ignorance, is the violation of some understood knowledge. There are a variety of contextualization cues used in this scene as George tries to defend himself against the accusation; these contextualization cues work together making apparent the incongruities in the given context of the scene in order to create humor.

5.1 Analysis

The incongruity ignorance can be seen in George's reaction to his boss's question, *Is that correct?*, referring to whether or not the accusation was valid, Figure 4. George responds by saying *Was that wrong?*. This is incongruous for a few reasons. First, George answers a question with a question: a dis-preferred response to an adjacency pair (Goffman, 1981; Gumperz, 1982) violating our expectations of discourse norms. Second, he lies, not about his behavior, instead about his lack of knowledge of the inappropriateness of sex in the workplace. This is evidenced from the rising pitch throughout the utterance, an indication of lying (Vrij, 2000).

6	Boss	<i>Is that cor[↑rect [(3.5)]</i>
7	Audience	<i>[laughing] ((increases with length of pause))</i>
8	George	<i>((constricted voice))↑Who said ↑<u>that</u> (.)</i>
9	Boss	<i>↑<u>She</u> ↓did (2.5) ((silent pause))</i>
10	George	<i>((↑entire phrase)) <↑was ↑that <u>wron:g</u>>? [(2.0)</i>

Figure 4.

In English, prototypical questions can be indicated with rising pitch at the end of an utterance (Gumperz, 1982), but in this instance, the entirety of line 10, is delivered at an elevated pitch, with the tone and timbre of George's voice being tight and constricted. There is also extra emphasis and length given to the word *wrong*, which we analyze to be George effort to point out that it was the (un)acceptability of the action that he was ignorant about.

There are several contextualization cues employed that contradict George's lack of ignorance of the violation of social code describes above in American culture. The use contextualization cues in order to create distance between George and the alleged action he committed, is the main thread of George's defense. George uses pronominalization, the process by which a noun is referred to as a pronoun creating distance between the speaker and the entity; footing change, described in section 4.1; and prosodic contour and intonation.

Pronominalization is used as a way of establishing distance between

George and the act of sexual intercourse. While George's boss explicitly uses the words *sexual intercourse*, Figure 5, line 3, George instead references his behavior four times with the pronoun *that*, lines 10, 12, 17, and 22. We analyze *that* to signal three separate meanings. The distinction can be seen between the *that* functioning as a complementizer, line 2, and the *that* which co-references *sexual intercourse*, line 17, where the latter is more truncated than the former. Shortening of word length, as well as the pronominalization, serve as mechanisms to draw attention away from the actor-action relationship. In line 22, George is making his argument that if everyone is doing *that*, i.e. sexual intercourse, then why can't he. Here, *that* is not truncated but instead given emphasis by the use of rising pitch, as George tries to make his case that sex in the workplace is widely held to be socially appropriate. This signaling of *that* being acceptable or not is realized through the shortening of the *that* in line 17, interpreted as unacceptable, in contrast with the emphasized *that* in line 22, George's effort to signal that *that* is acceptable.

Another case of pronominalization is seen in line 16, Figure 9. George's reference to *anyone* or *anything* further helps him establish distance with having had sexual intercourse in his office, by utilizing a nameless third party entity, *anyone*, indicating the person who failed to inform him about *anything*, the rule against having sexual intercourse in the office.

2 *it's come to my <at[tention> that you and the cleaning*
 ↓*woman(.)*
 3 *have engaged in <sexual intercourse> (.)*
 10 *((↑entire phrase)) <↑was ↑that wron:g>? [(2.0)]*
 12 *((↑entire phrase)) <↑should I not have done that>? [(.)]*
 16 *because if< ↑anyone> had said <anything> to me at ↓all*
 17 *when I first started [↓here= <that that : sort of thing*
 22 *[I tell ya](.) >people do ↑that ↑all: the time< [(2.5)]*

Figure 5.

Via footing change, the incongruity of ignorance is manifested through George's identity alteration to that of a person ignorant of social and moral norms, steering his boss's attention in the direction of his feigned lack of knowledge of social norms. George overtly changes his footing by claiming ignorance, Figure 6, line 15.

15 *>I gotta plead ignor[↓ance on this thing =*

Figure 6.

7 Further Research

In further research, we would like to address the discussion of whether or not the language itself is what is humorous or is the language acting as venue for humor to be expressed by.

References

- Goffman, Erving. (1981). *Forms of Talk*. The University of Pennsylvania Press: Philadelphia.
- Gumperz, John. (1982). *Discourse Strategies*. Cambridge University Press: Cambridge UK.
- Hurd, Robert. (2006). Taking Seinfeld Seriously: Modernism in Popular Culture *New Literary History*, 37,(4). 761-776 The Johns Hopkins University Press. doi: 10.1353/nlh.2007.0005
- Jefferson, Gail. (2004). *Glossary of transcript symbols with an introduction*. John Benjamins Publishing Co.
- Karman, B. (1998). Postmodern power play: a linguistic analysis of postmodern comedy. MA thesis, department of English, Youngstown State University.
- Morreall, J. (1987). *The philosophy of laughter and humor*. Albany, NY. State University of New York Press.
- Paulos, J. A. (1980). *Mathematics and Humor*. The University of Chicago Press.
- Schwarz, Jeannine. (2010). Linguistic aspects of verbal humor in Stand-up Comedy. Dissertation. Dokto University of Chicago Press.
- Vrij, A. (2000). *Detecting lies and deceit: the psychology of lying and the implications for professional practice*. England: John Wiley & Sons.

Appendix

Jefferson's (2004) transcription glossary with incorporated symbols for the discourse alterations: genre change, footing change, exaggeration, and metaphor.

Glossary of Transcript Symbols

(.)	pause
(0.0)	seconds of a pause
[laughing]	laughing
CAPS	loudness
↑	upward intonation
↓	downward intonation
=	no pause between utterances

:	elongation
ː	shortened
(())	transcribers notes
-	really long
> <	faster utterance
< >	slower utterance
_____	stress/emphasis

The effect of affect? Task variability in L2 French

Deborah Moniuk

University of British Columbia

moniuk@interchange.ubc.ca

Researchers have considered negative affective factors as problematic to both acquisition and processing (Arnold, 1999; Krashen, 1982; Stevick, 1976). Fewer authors have examined the possible relationship between positive affect and learner output (Guiora, 1980; Stevick, 1999), and previous studies have mostly considered negative affective states (e.g. anxiety and agitation) and their inhibiting effects (MacIntyre & Gardner, 1994; Steinberg & Horowitz, 1986). Recently, researchers have focused on learners' willingness to communicate in a second language (Doucette & MacIntyre, 2010; Pyke, McCullough & Kissau, 2010; Storch & Léger, 2009). In this paper we will present a methodological framework for researchers to address a possible correlation between positive affect and learner output. We will then apply the framework to our upcoming study. The participants will be forty male and female advanced learners (age range 18-25) of French as a second language at a post-secondary institution in Canada. We will present the participants with two randomized trials of stimuli: three one-minute videos and three photographs. The experimenter will ask participants a series of leading questions in order to elicit production; participants will describe one trial orally, and one trial in written form. Following each description, participants will rate their emotional response to each stimulus on a scale, then respond to a personality questionnaire designed to flag for extroversion. Initially, we will code adjective types, then run descriptive and inferential statistics. We acknowledge the limited subject pool and individual variability in responses, but this methodology can be replicated for research in other languages. We predict that variation in types and Mean Length of Utterance will increase with reported positive affective responses. If learner output varies with reported feelings, French language teachers should consider the effect of affect in selection of teaching materials. Keywords: psycholinguistics; French as a second language; production; affect; willingness to communicate; variability

1 Introduction

1.1 An introduction to the domain of affect in education

Affective factors as related to progress in education gained importance during the growth of humanistic psychology during the 1960s. Since the 1970s, researchers in the field of Second Language Acquisition (SLA) have considered the implications of affect as problematic to both acquisition and processing (Arnold, 1999; Krashen, 1982; Stevick, 1976).

In this study, we understand affect as the combination of emotional, psychological, and/or environmental factors that have a cognitive impact on language, be it on processing, acquisition or output. We will focus on learner output in French as a Second Language (L2) and the possibility of affect in a facilitative or hindering role in oral and written production. As fewer studies have addressed the positive side of affective factors, we hope to spark discussion in the field of SLA on this matter. Although we will use L2 French as an example for our future study, we hope that researchers will be able to apply this method as a starting point for investigating the effect of affect in other languages.

1.2 What do we know about anxiety and L2 production?

Further to the above-mentioned studies on processing, many researchers conducted studies with a focus on negative affective states (e.g., anxiety and agitation) and their inhibiting effects (MacIntyre & Gardner, 1994; Steinberg & Horowitz, 1986). While the majority of these studies focused on the debilitating effect of anxiety, some studies (see e.g., Scovel, 1978) did supply evidence suggesting that anxiety can have a positive effect on language learning.

One limiting element commonly acknowledged by researchers of affective factors is that affective factors, whether positive or negative, are numerous, vary within individuals and situations, and are difficult to isolate; even if one could isolate an affective variable in a laboratory setting, this would be difficult to replicate in a language classroom. Thus, the present study will acknowledge the inevitable presence of the following in language learners, most of which, in a typical learning environment, would be difficult for an educator to control: a) emotional factors such as personal crises; b) psychological factors such as state or trait anxiety; c) environmental factors such as room temperature. For this study, we will focus on an element French language teachers can control: the visual stimuli presented in the learning environment.

1.3 What do we know less about anxiety and L2 production?

In response to the swell of evidence suggesting that negative affect inhibits willingness to communicate, and therefore L2 use, the intuitive deduction is that a reduction of anxiety will have a facilitative effect. Despite this, we know much less about the effects of reduced anxiety. Fewer authors have examined the possible relationship between positive affect and learner output (see Guiora, 1980; Stevick, 1999).

In recent years, researchers have focused increasingly on learners' willingness to communicate in a second language (Doucette & MacIntyre, 2010; Pyke, McCullough & Kissau, 2010; Storch & Léger, 2009;). This rise in studies about willingness to communicate suggests that researchers in SLA are becoming more interested in a less investigated aspect of affect; that is, they are considering situational models where anxiety is reduced rather than induced. These studies investigated the reasonably intuitive assumption that if raising anxiety induces reticence, then lowering anxiety ought to increase willingness to communicate (i.e., overall production). With this as a focus, we build our future study.

2 A sample future study

A review of previous studies as described above reveals that we know a great deal about negative affective factors as related to processing and acquisition. Researchers have identified anxiety in particular as a problem for language learners. From the abundance of anxiety research, there is much evidence suggesting that a negative affective factor such as high anxiety may hinder processing or production (even though some studies suggest that a small amount of induced nervousness could facilitate these processes). Thus, one might reasonably infer that if French language teachers strive to reduce anxiety in the classroom, learners will participate more, hence practicing language use more. In this way, French language teachers would be able to assess student progress in language more easily.

Though there is an abundance of anxiety research, much less is known about a possible correlation between positive affect and learner output (written and oral). Although some studies have investigated learner output and willingness to communicate, fewer have examined positive affective factors and their possible link to task variability.

The goal of presenting this framework for study is to address this gap in the literature by examining learner-reported emotional responses to visual stimuli (video clips and photographs) and conducting statistical analysis on utterances (oral and written) elicited by these stimuli. We will ask the following questions to guide our research:

- (1) What emotional responses can visual stimuli trigger in L2 French?
- (2) How much can learner output in L2 French vary relative to learner-reported feelings?
- (3) What role does personality play in L2 French output?

We have designed these questions to address the gap in the literature when it comes to positive affective factors. However, for a point of reference, it is important to acknowledge that negative affective responses can occur, especially when working with individuals from different backgrounds and variable affective states and personality traits. Thus, the first research question is open-ended: we are prepared to gather qualitative and quantitative data reporting participants' emotional responses to the stimuli. This means that while a 1-10 scale from negative (1) to positive (10) may be useful, an array of emotional responses are possible, which would convey the nuances of individual variability. For example, one subject might report that one photo makes him or her feel "guilty", with a rating of "4", and another might report "shocked", also with a rating of "4". Collecting both quantitative and qualitative data will enable us to explore the nature of affective factors and its variability across individuals and tasks.

In order to couch the study in the available literature, we intend to quantify the degree of emotional responses as well as the degree of introversion/extroversion as reported by the learners on a personality questionnaire. Once we have collected these data, we will perform descriptive and inferential statistical analysis to quantify variability across tasks, as well as variability within and between individuals.

Thus, the objective of asking these questions is to gather qualitative and quantitative data to analyse learner output while considering affective factors. The intuitive hypothesis is that the visual stimuli will trigger a wide variety of feelings in learners due to personality and individual experiences. Intuitively, we predict that a more positive emotional response will result in a longer Mean Length of Utterance (MLU), greater variety of adjectives and other lexical types. We also predict that there will be more errors overall due to risk-taking. We expect that a subject who responds more positively to a photograph or video would have more to say. However, it is possible that negative affective responses will facilitate the production process as well, and that we will see the shortest MLUs and the least lexical variety accompanied by the emotional responses reported closest to neutral. Another variable we acknowledge is personality. We predict that extroverts will produce more language than introverts, regardless of the task.

This study has practical implications for French language teachers. If affect can trigger variability in L2 performance, teachers should consider the effect of affect for the selection of tasks and materials. If certain tasks and stimuli elicit more output from learners, evaluation and L2 practice are facilitated.

3 Methodology

3.1 Participants

As soon as we receive Research Ethics Board approval, we will conduct the experiment with forty participants, with a distribution of males and females (age range 18-25 years) self-selected from a multicultural pool of students in third-year French as a Second Language courses at a post-secondary institution in Canada. We anticipate that by the third year of study, the participants will have attained a sufficiently advanced level of proficiency, which is important because participants will need the linguistic competence required to express themselves comfortably in the L2 in order for data to be gathered. That said, we do not intend to pre-screen the participants for proficiency, nor do we intend to exclude any participants based on academic achievement. Our study is designed to reflect the ecology of a classroom and to be as encompassing in our participant selection as possible. This approach will reflect the true nature of learner variability and proficiency and will consider realistic challenges teachers face in the classroom.

3.2 Instruments

At present, we are considering the following instruments and materials for the study: a) photographs; b) video clips; c) leading instructions; d) personality questionnaires; e) an instrument measuring reported task difficulty; f) a background questionnaire; g) a recording device.

In order to gather linguistic data, we will employ photographs and videos of human beings engaged in social interactions. The photographs and video clips will be in full colour; the video clips will be silent films of one minute each.

The personality questionnaire will be no longer than 24 items and will be designed to measure signs of introversion or extroversion. We feel this will be relevant for the study as measures of introversion or extroversion may assist in accounting for variability in MLU across participants. It is also possible that, for example, an introvert will report strong affective responses to certain stimuli, but his or her utterances will remain succinct across all tasks. At present, we are considering an abbreviated version of the Eysenck personality questionnaire (Francis, Brown & Philipchalk, 1992).

In order to account for variability in task difficulty, we are considering an instrument designed to ask participants how well they feel they performed on the

task, how mentally demanding the task was, among other factors. One example of such an instrument is the NASA Task Load Index (NTLX), a 7-item scaled questionnaire (Hart & Staveland, 1988).

The background questionnaire will be designed to gather information about the participants' language learning history, as well as basic demographic information such as language background, age, gender, etc. Finally, for the oral trials, participants will be interviewed one-on-one in a standard classroom setting with a tape recorder.

3.3 Procedure

After obtaining consent from the participants, the experimenter will ask participants to describe two randomly ordered trials, each with three stimuli: three one-minute videos and three photographs. We will use a series of leading instructions in order to elicit production, e.g.: (a) *Décrivez ce que vous voyez dans cette photo* 'Describe what you see in this picture.'; (b) *Dites-moi, à votre avis, qui sont ces personnes-ci?* 'Tell me, in your opinion, who are these people here?'

Participants will intersperse between the oral and written production modes. For example, if a participant describes a picture orally in one trial, the same individual will describe a video clip in written form next. To control for presentation order (a possible bias), participants will be randomly assigned to begin the study in a production mode. In the end, half of the participants will first describe the stimuli orally and in writing second. The other half will first complete the tasks in writing and orally second. Because this will be a free production task, participants will be invited to speak or write for as long as they like.

Following each description, participants will rate their emotional response to each stimulus on a scale and have the option of providing additional qualitative data by selecting from a series of emotions that might best reflect their relationship with the content in the photograph or video. Participants will have the option of resting between trials. At the end of all six trials, participants will then respond to a personality questionnaire designed to flag for signs of introversion or extroversion, and provide some basic demographic information. The experimenter will offer the participants a debriefing and a token of appreciation for their participation.

4 Results

4.1 Data Analysis

We will consider the full handwritten text of the written mode, and the first two minutes of transcriptions for the oral mode. For the oral tasks, we will consider MLU, all lexical types and tokens, false starts and false cognates (L1 interference). For the written mode, we will consider all lexical types and tokens, false cognates (L1 interference), and gender and number agreements.

For our analyses, we will calculate descriptive statistics, run inferential tests, measure the MLUs, count and classify any errors, and count and classify all lexical items. The statistical analysis will take into account the imbalance of content across and within participants.

4.2 Anticipated Results

We predict that variation in all types will increase as participants report stronger positive affective responses to stimuli (i.e., increase from shocking to pleasant). We also expect that extroverts will produce more language overall. The sample Figure 1 shows possible data sample profiles based on these predictions. Y-axis values are meant to provide an example of possible relative outcomes rather than absolute values.

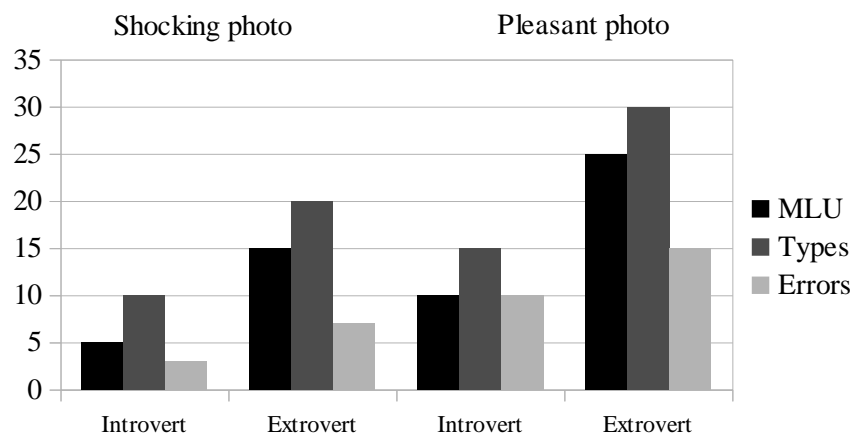


Figure 1. MLUs, Lexical Types and Agreement Errors in Introverts and Extroverts

As shown in the possible profiles on the left, we expect both groups to take fewer risks to meet their communicative needs when reporting negative affective

responses. The two sets of data of the right represent what we might expect to see when participants report a positive response to a stimulus: a increase in variety of lexical types (represented by dark gray bars) and longer MLUs (black bars) overall. Regardless of task type, introverts may provide more succinct responses, taking fewer risks and therefore producing fewer errors (represented by light gray bars) than extroverts as a group.

5 Limitations

We acknowledge that there is a limited subject pool of participants who will be enrolled in third-year French as a second language courses. As such, we stress the importance of adapting this framework for work on other languages. Working in the domain of affective factors also means that individual variability in responses may complicate statistical analysis.

6 Implications

The purpose of this study is to measure variability in L2 output across tasks, as well as within and between participants. If affect can indeed trigger variability in L2 performance, then teachers should consider the effect of affect while selecting tasks and materials for the classroom. If certain tasks and stimuli can elicit more output from learners who appear to feel more relaxed, practice and evaluation are facilitated. We are particularly interested to see whether our data can be replicated across groups of participants learning different L2s.

Acknowledgements

I would like to thank Dr. Samuel Navarro and Dr. Hervé Curat at the University of British Columbia, Department of French, Hispanic and Italian Studies, for their expertise and feedback. I also extend my thanks to Chris, for the late nights, the early mornings, the support and as always, your keen eyes.

References

- Arnold, J. (Ed.). (1999). *Affect in Language Learning*. Cambridge: Cambridge University Press.
- Doucette, J., & MacIntyre, P. D. (2010). Willingness to communicate and action control. *System*, 38(2), 161-171. doi:10.1016/j.system.2009.12.013

- Francis, L.J., Brown, L.B. & Philipchalk, R. (1992). The development of an abbreviated form of the revised Eysenck personality questionnaire (EPQR-A): Its use among students in England, Canada, the U.S.A. and Australia. *Personality and Individual Differences* 13 4), 443-449.
- Guiora, A. Z. (1980). The effects of benzodiazepine (valium) on permeability of language ego boundaries. *Language Learning*, 30(2), 351-361. doi:10.1111/j.1467-1770.1980.tb00323.x
- Hart, S.G. & Staveland, L. E. (1988). Development of NASA-TLX (Task Load Index): Results of Empirical and Theoretical Research. *Human Metal Workload*, 139-183.
- Krashen, S. (1982). *Principles and Practice in Second Language Acquisition*. Oxford: Pergamon.
- MacIntyre, P.D. & Gardner, R.C. (1994). The subtle effects of language anxiety on cognitive processing in the second language. *Language Learning*. 44/2, 283-305.
- Pyke, J. G., McCullough, H., & Kissau, S. (2010). "Leveling the playing field:" the Effects of Online Second Language Instruction on Student Willingness to Communicate in French. *CALICO Journal*, 27(2), 277-297.
- Scovel, T. (1978). The effect of affect. A review of the anxiety literature. *Language Learning*, 28, 129-142.
- Steinberg, F.S., & Horwitz, E.K. (1986). The effect of Induced Anxiety on the Denotative and Interpretive Content of Second Language Speech, *TESOL Quarterly*.
- Stevick, E.W. (1976). *Memory, Meaning and Method*. Rowley, M.A.: Newbury House.
- Stevick, E.W. (1999). Affect in learning and memory: from alchemy to chemistry. In J. Arnold (Ed.). *Affect in Language Learning*. Cambridge: Cambridge University Press. 43-57.
- Storch, N., & Léger, D. d. S. (2009). Learners' perceptions and attitudes: Implications for willingness to communicate in an L2 classroom. *System*, 37(2), 269. doi:10.1016/j.system.2009.01.001

Effect of translation practice on vocabulary acquisition in L2 Spanish

Irina Goundareva

University of British Columbia

irusiag@interchange.ubc.ca

Research in second language (L2) vocabulary learning and teaching has recently regained interest in the field of Second Language Acquisition (SLA). Likewise, studies in translation have focused on L1-L2 translation because it is a highly demanding task that involves searching for form, recalling, and evaluating (Laufer & Girsai, 2008). Yet, L2-L1 translation practice and vocabulary acquisition have not been discussed sufficiently. L2-L1 translation requires searching for meaning, recognition of word form, and later use in word production.

This study explores a possible effect of L2 Spanish to English translation practice on reception and production of L2 vocabulary. Two groups of third-year L2 Spanish learners at a multicultural post-secondary institution participated. The learners read a short story in Spanish, wrote a summary of the story in Spanish, and participated in a detailed discussion of the vocabulary and content of the story. A key activity was the translation from Spanish into English of an excerpt from the short story performed by one of the groups. All students did a posttest in Spanish which included vocabulary recognition, supplying synonyms or antonyms, and applying vocabulary in context. Two questions motivated the study: Does translation practice help students recognize new Spanish vocabulary? Does translation practice help students produce new vocabulary in correct contexts? Results showed that there was a minimal difference between the two groups on vocabulary recognition, but the group that performed the translation task performed better on the vocabulary production task. A follow up study will test whether similar tendencies are observed when translating from English into L2 Spanish.

Key words: Spanish, vocabulary, translation.

1 Introduction

1.1 Why translation?

Translation, as defined in the Oxford English Dictionary, is the action or process of turning from one language into another or the product of this, or, also, a version in a different language. Yet, L2-L1 translation practice and vocabulary acquisition have not been sufficiently discussed. While L2-L1 translation requires searching for meaning, recognition of word form, and later use in word production, L2-L1 translation is less common in L2 instruction than L1-L2, but textbooks are designed so that students have to learn equivalents of Spanish words in English.

Laufer and Girsai (2008) conducted a study of effect of explicit contrastive analysis and translation on L2 vocabulary learning. They explain why translation is a valuable exercise for vocabulary learning:

“Translation tasks embody the element of need since the words that have to be understood (when translating into L1), or produced (when translating into L2) are predetermined by the source text. The element of search is present as well.... Most importantly, an element of evaluation is necessary to carry out translation activity. There is usually more than one translation alternative for a given sentence. Therefore, when translating, learners have to make a decision as to how each alternative fits the text they create” (Laufer & Girsai, p. 698).

To summarize this section, studies in translation have recently focused on L1-L2 translation because it is a highly demanding task that involves searching for form, recalling, and evaluating.

1.2 About the study

This project focuses on L2 - L1 translation as an exercise which can be useful for vocabulary teaching and learning. One of the recent studies that motivated this project was the article by Pavlenko (2000), who found a significant effect of L1 on L2 vocabulary production in late bilinguals. Therefore, this pilot study explores a possible effect of L2 Spanish to English translation practice on reception and production of L2 Spanish vocabulary in third year university students.

In the paper I attempt to answer the following research questions:

1. Does translation practice help students recognize new Spanish vocabulary?

2. Does translation practice help students produce new vocabulary in correct contexts?

2 Literature review

In the early 1980s vocabulary acquisition was called “a neglected aspect of language learning” (Meara, 1980, p. 221). It was not until then that research in vocabulary learning and teaching garnered interest amongst Second Language Acquisition (SLA) researchers. Prior to this shift, research was principally focused on issues of grammar and orthography. Recent studies highlight the importance of the study of second language (L2) vocabulary acquisition. For example, Gass and Selinker (2001) found that: first, lexical errors, meaning vocabulary errors, constitute most L2 errors and second, both learners and native speakers view lexical errors as the most serious and disruptive obstacles to communication (p. 372). However, research in foreign language vocabulary teaching and learning is still scarce (Bruton, 2007). The importance of vocabulary acquisition lies in the need to express one’s thoughts in a foreign language. Nowadays, vocabulary acquisition is one of the main aspects of students’ attention when it comes to language learning. They stress the necessity to learn vocabulary through various exercises: reading, repetition, using words in context, conversations and, most certainly, translations.

The study by J. F. Kroll and Stewart (discussed in Kroll et al, 2010) addresses the representation, processes and strategies that are used when skilled adult bilinguals speak words and process sentences in each of their two languages (p.104). The Revised Hierarchical Model (RHM), proposed by Kroll, accounts for the development of conceptual processing with increasing L2 skill. “A clear prediction of RHM is that translation from L2 to L1 should be in place early in acquisition, whereas L1 - L2 translation, which requires conceptual access, will be more difficult for learners to perform. If L2 is linked to L1 initially for the purpose of accessing meaning, then those connections should be the first available to the learner” (p. 115). The authors suggest that at early stages of language acquisition, the students approach the study linking word-for-word from the L2 to L1. In other words, they constantly translate, and therefore, are unable to “think” in the L2. However, as their proficiency in L2 increases, they begin to access the conceptual level which is assumed to be common in the two languages. That is, words in each of the bilingual’s languages access a common semantic code. Kroll concludes that in fairly proficient learners L2-L1 and L1-L2 translations are not lexically mediated through L1 (2010).

3 The current study

This study enriches the field by providing data that possibly supports the use of L2 - L1 translation tasks for high intermediate (i.e. third year) Spanish language learners in the Canadian university system. For the purpose of this study we used translation not as a final test, but rather as an extra step in vocabulary teaching.

3.1 Participants

Two classes of 35 third year Spanish students from a post-secondary institution in Canada were divided into two groups. Only the students who were present during all the treatment procedures and the post-test (Group A, N=14 and Group B, N=15 students from each group) were included in the study (total number of participants was 29). We called Group B “Experimental group” since these students performed the translation task as opposed to Group A that did not. Both groups were taught by the same language instructor to control instruction conditions.

3.2 Instruments and procedures

3.2.1 Background Questionnaire

Students answered questions about their language learning experience prior and during their UBC studies, as well as about basic demographic information. Some example questions were: “What is your mother tongue?” and “What other languages do you speak?”

3.2.2 Short story reading passage

The students were asked to read the story “Continuity of the parks” in Spanish by Julio Cortazar, which was a part of their course program. The text that students read for the purpose of the study had some vocabulary glosses in the book. We assume that the glossed words were equally new for all students. The participants read the story at home and they used a dictionary to search for unfamiliar words.

3.2.3 Comprehension and vocabulary questions

The participants discussed the contents of the story in class under the supervision of their instructor. The researcher was present during the class discussion, observing their interactions, as well as the instructor’s assistance. It should be noted that there was minimal English used in class and the students were

encouraged to express themselves only in Spanish. The explanations of unfamiliar words were given in Spanish as well.

3.2.4 Summary of the story

After reading and discussing the story, the students wrote a short summary of the text in Spanish. The purpose was to make sure that everyone understood the plot of the story. The instructor collected the assignments.

3.2.5 Translation from Spanish into English

Only Group B (experimental group) performed the translation task. They were asked to write a translation of an excerpt of the story specified by the instructor. Because the entire story was considered by the course instructor to be too long for translation, the chosen excerpt was much shorter, so that the students had time to work on it in class. They performed the translation during 15 minutes of the class time. No dictionary use was allowed, but we suppose that the students' own notes in the text were used in the process of translating. Not everybody had time to complete this task, but all the answers were collected and analyzed by the researcher. The part of the story used for translation from Spanish into English is presented in the Appendix.

3.2.6 Delayed task

The last part of the procedure, performed three weeks after the translation task, consisted of three elements. First, the participants were asked to choose a correct answer to complete a word definition. Second, they supplied synonyms and antonyms for the given vocabulary items. Finally, they were asked to write complete sentences with the given words and expressions.

The delayed task was designed particularly for this project in order to see the effect of L2 - L1 translation exercise, performed by Group B, compared to no translation task in Group A, on vocabulary acquisition. By applying a delayed task, we measured not immediate but delayed vocabulary acquisition results. A variety of questions are included in the task as both comprehension and production measures. The definitions of "synonym" and "antonym" were written next to the questions for the students to be clear on what they mean, in case they were not familiar with the terms. The explanation was given in Spanish as well as all the instructions in the delayed task.

4 Results

4.1 Contextualized vocabulary recognition: providing the correct term for a definition.

By looking at the Figure 1, we can see that Group B, the experimental group has outperformed Group A on this part of the vocabulary recognition task. The group that had done the translation task has demonstrated a greater level of new vocabulary recognition by choosing a greater number of correct definitions of vocabulary items. It is important to note, however, that both groups have shown extremely high levels of vocabulary recognition (Group A – 92% and Group B – 94%).

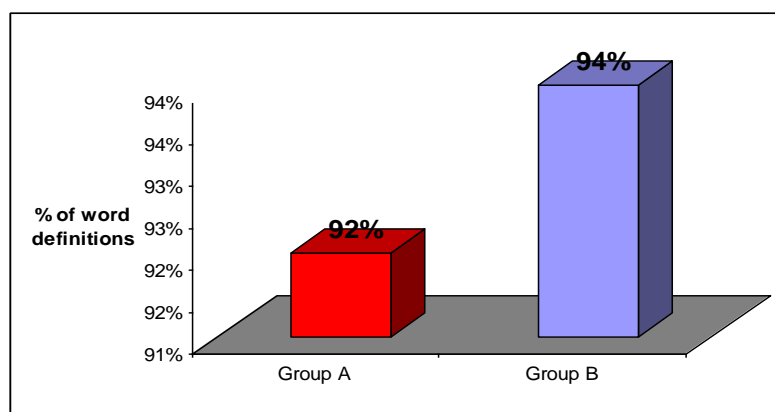


Figure 1.

4.2 Vocabulary recognition: providing correct synonyms and antonyms to the given vocabulary items.

Figure 2 above shows that the results of the second part of the delayed task are contradictory to the results of the first task. In other words, the results show that the experimental Group B performed scored lower than the non-experimental Group A on the vocabulary recognition task (77% versus 83%). If we collapse the results of the first and the second tasks, the results will cancel each other out. Thus, we conclude that the overall results of the recognition tasks are inconclusive since we did not find any clear results.

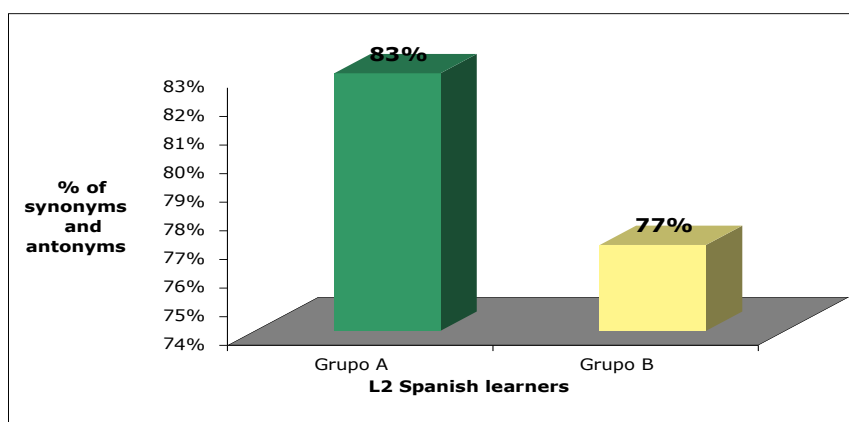


Figure 2.

4.3 Vocabulary production: write complete sentences with the given vocabulary items.

The results of the last part of the delayed task (figure 3), which focused on the production of the vocabulary in context, have shown a significant advantage of the experimental Group B over the non-experimental one (93% versus 83%). Based on these results we conclude that the translation exercise performed by Group B has had a positive effect on the vocabulary production in our participants.

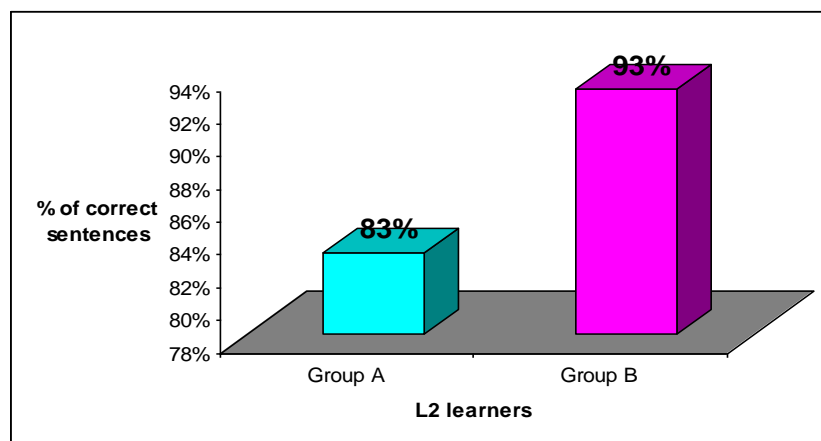


Figure 3.

5 Discussion

The results of the delayed task have showed no significant difference between the two groups on vocabulary recognition task, but there is a noticeable advantage of Group B over Group A on the vocabulary production task. Although, based on some previous findings in the field, we would expect the influence of L2 - L1 translation on vocabulary recognition; our study has shown a stronger influence of translation on the production of new vocabulary, at least in our sample of students. Nevertheless, both groups have performed very highly on all three tasks involved in vocabulary acquisition. This conclusion leads to the next part: limitations and implications for further study.

5.1 Limitations

While performing this study we have encountered some important limitations of the study: the size of the participant sample was too small to see any significant results, the corpus of target vocabulary items could be larger in order to provide for a wider range of questions, and the time constraint for the translation task was an issue as well.

5.2 Implications for further study

Since this particular area has not been extensively researched, this will be a suitable subject of a future study. Next time, we should include only new vocabulary items and preferably pretest those words on a small group of participants. In addition, L1 - L2 translation would complement the results of L2-L1 translation which will focus on language production. We will compare the new results with the ones found in the present study in order to analyze a change in tendency of the results. Finally, a longitudinal study would be beneficial, as it would allow us to see how this exercise affects students at different levels of language learning (from beginners to advanced learners).

6 Conclusion

This study explored a possible effect of L2 Spanish to English translation practice on reception and production of L2 vocabulary. Based on our limited results of the vocabulary recognition task, we concluded that there was no significant difference between the two groups of participants after the experimental group performed the translation task. In other words the participants who translated the text from Spanish into English performed very much like the group that did not do the translation. Therefore, the results of the vocabulary recognition tasks are inconclusive at this stage of our research. On the contrary,

in the third task, which focused on the production of vocabulary, the experimental Group B showed a noticeable advantage over the Group A. A follow up study will test whether similar tendencies are observed when translating from English into Spanish in a larger context while paying close attention to the multicultural composition of classes.

References

- Bruton, A. (2007). Vocabulary learning from dictionary referencing and language feedback in EFL translational writing. *Language Teaching Research*, 11(4), 413-431.
- Gass, S., & Selinker, L. (2001). *Second language acquisition: an introductory course*. 2nd edition. Mahwah, NJ: Lawrence Erlbaum.
- Kroll, J. F., Van Hell, J. G., Tokowicz, N. & Green, D. W. (2010). The Revised Hierarchical Model: A critical review and assessment. *Bilingualism: Language and Cognition*, 13, 373-381.
- Laufer, B., & Girsai, N. (2008). Form-focused instruction in second language vocabulary learning: A case for contrastive analysis and translation. *Applied Linguistics*, 29(4), 694-716.
- Meara, P. (1980). Vocabulary acquisition: A neglected aspect of language learning. *Language Teaching* 13, 221-246.
- Oxford English Dictionary* (online). <http://www.oed.com/view/Entry/204844?redirectedFrom=Translation#>
- Pavlenko A. (2000). New approaches to concepts in bilingual memory. *Bilingualism: Language and Cognition*, 3(1), 1-4.

Appendix

Continuidad de los parques by Julio Cortazar (1956)

Había empezado a leer la novela unos días antes. La abandonó por negocios urgentes, volvió a abrirla cuando regresaba en tren a la finca; se dejaba interesar lentamente por la trama, por el dibujo de los personajes. Esa tarde, después de escribir una carta a su apoderado y discutir con el mayordomo una cuestión de aparcerías, volvió al libro en la tranquilidad del estudio que miraba hacia el parque de los robles. Arrellanado en su sillón favorito, de espaldas a la puerta que lo hubiera molestado como una irritante posibilidad de intrusiones, dejó que su mano izquierda acariciara una y otra vez el terciopelo verde y se puso a leer los últimos capítulos. Su memoria retenía sin esfuerzo los nombres y las imágenes de los protagonistas; la ilusión novelesca lo ganó casi en seguida. Gozaba del placer casi perverso de irse desgajando línea a línea de lo que lo rodeaba, y sentir a la

vez que su cabeza descansaba cómodamente en el terciopelo del alto respaldo, que los cigarrillos seguían al alcance de la mano, que más allá de los ventanales danzaba el aire del atardecer bajo los robles. Palabra a palabra, absorbido por la sórdida disyuntiva de los héroes, dejándose ir hacia las imágenes que se concertaban y adquirían color y movimiento, fue testigo del último encuentro en la cabaña del monte

From home to school: Bridging the literacy gap in L1 Wolof children learners of L2 French in Senegal

Moustapha Fall

University of British Columbia

Fallm77@gmail.com

This study examines the acquisition of literacy in a second language (L2) in the absence of literacy in the first language (L1). Wolof children in Senegal—West Africa—develop their first literacy skills in their second language (L2), French or Arabic, not in their first language (L1), Wolof. The Wolof language is primarily oral, and even though a written system has been recently developed, children still do not read and write in their L1. This situation slows down the process of learning French as children have no pre-existing literacy skills to transfer from their L1 to their L2 (Ellis, 1994).

The very notion of cross-linguistic transfer from L1 to L2 has been an increasingly important research topic in the field of Second Language Acquisition over the past twenty years (Ellis 1994; Odlin 1989; Kasper 1989; Cummins 2000). Of equal importance has been the notion of interdependency between L1 and L2 and the effect(s) of L1 literacy on L2 learning; a dominant theory in the 1980s (Cummins, 1979, 1984, 2000- *Interdependence Hypothesis*). However, prior to Cummins' work on the notion of cross-linguistic transfer and language interdependency, the UNESCO report of 1953 and other studies presented themselves in support of the use of the mother tongue as “the best medium for teaching a child to read (UNESCO, 1953).

1 Introduction

Nearly sixty years ago, experts at a UNESCO annual conference voiced their support for the use of mother tongue instruction (L1) and stated the following:

“It is axiomatic that the best medium for teaching a child to read is his mother tongue. Psychologically, it is the medium of meaningful signs that in his mind works automatically for expression and understanding. Sociologically, it is a means of identification among members of the community to which he belongs. Educationally, he learns more quickly through it than through an unfamiliar medium” (UNESCO, 1953).

Subsequent inquiry and research over the past several decades into this very issue have further demonstrated that L1 instruction plays a key role in the learning of a second language. For example, early research by Modiano (1968) on Mayan-Spanish children in Chiapas, Verhoeven's (1998) study on Turkish children living in the Netherlands, and the work of Skutnabb-Kangas and Toukomaa (1976) on Finnish immigrant children in Sweden have all concluded that L1 reading instruction enhances reading skills in the second language (Modiano, 1968; Verhoeven 1998; Wagner, 1998).

Although UNESCO's report has helped spawn additional research in North America and Europe, it is in Africa that it has been taken most seriously. Since the publication of the report in 1953, many African governments have attempted to develop orthographies of unwritten vernacular languages. These are now being used to develop literacy in primary-school children (e.g. Nigeria, Tanzania). And yet, the mother-tongue literacy issue is still subject to intense debate among educators in Senegal, it is surprising to find that many researchers continue to overlook the fundamental question the UNESCO report implies: How well do children learn to read in a second language when their own mother tongue is unwritten?

In this study, I explore the acquisition of Wolof children's reading comprehension skills in L2 French in the absence of literacy in their mother tongue, Wolof. The research involves sixty children who are native speakers of Wolof and learners of L2 French in Touba, Senegal. Wolof children are raised to be functional in two language skills (i.e. listening and speaking) and, later on, they learn to read and write in French as a second language in school. In that respect, the Senegalese educational system is still not complying with the UNESCO (1953) stipulation that "the best medium for teaching a child to read is his mother tongue". Thus, how well Wolof children in Senegal develop literacy in L2 French without literacy in their mother tongue has become an inevitable concern for educators and linguists alike.

The structure of this study is as follows. First, I briefly present the socio-linguistic situation of Senegal during the French colonialism. Second, I examine one of the main theoretical frameworks of this study (e.g. Cummins' *Developmental Interdependence Hypothesis*). Finally, I discuss the methodology being used to conduct this study.

2 Socio-linguistic situation of Senegal during colonialism

2.1 Linguistic cohabitation of Wolof & French

The cohabitation between French and Wolof started back in the French colonial period. Since that time, Senegal has officially become a Francophone country

which assumes a prominent role in the community of Francophone states known as “La Francophonie” (Laughlin, 2008). Despite the importance of the French language, current estimates hold that 90% of the population of Senegal speaks Wolof as either a first or a second language. In Dakar, the capital of Senegal, more than 96 % of the people speak a form of language known as urban Wolof. This form of urban Wolof, a mixture between French and Wolof is quite different from the rural Wolof marked by its limited use of French words (Swigard, 1992).

It is particularly striking that during the French colonial period, Descemet, Governor Faidherbe’s personal secretary, recognized the importance of having the native Senegalese develop literacy in their mother tongue (1886, as cited in Laughlin’s study). This led to his publishing a forty eight page collection of approximately 1,200 everyday French phrases translated into Wolof (Laughlin, 2008). This monograph has had linguistic and educational implications. Most importantly, Descemet deplored in the monograph the fact that many Wolof children were exposed to reading in French without having prior strong knowledge basis in their mother tongue. Descemet was openly critical of what he observed happening at the elementary school level where Wolof children were taught to read in L2 French language without developing even minimum skills in their mother tongue, Wolof. The “deplorable result of this misguided policy”, writes Descemet, “is a generation of school children who may read fluently in French after a certain number of years at school without understanding a single word of what they have read” (Laughlin, 2008).

Descemet’s concerns at that time were pedagogically driven and his emphasis on the importance of the mother tongue was well intentioned. The Senegalese educational system revisited Descemet’s early observations republished in the 1960s and early 1970s. In an attempt to diagnose the current underlying roots behind Wolof children’s poor academic achievement in the French language, a number of school principals, school teachers and researchers in various disciplines met for three days to discuss that issue of children ‘poor achievement in reading and writing in the French language. At the conclusion of the meeting, it was agreed that : « [...] le mal dont souffrait l’école dépassait le seul cadre de l’enseignement du français et demandait un examen beaucoup plus large et plus approfondi [...] » (Le Pédagogue, 1972). [...The difficulties that confront the schools go beyond the curriculum, and they need a complete and deep scrutiny [...] (Le Pedagogue, 1972).

3 Literature review

3.1 Cummins’s Developmental Interdependence Hypothesis (DIH)

In a series of studies that involved immigrant children in the United States, Cummins (1979, 1981, 1983, 2001) observed that a lack of a strong development

of L1 at home caused children to have a low reading performance in L2 English. His Developmental Interdependence Hypothesis is based on the notion that development of reading and writing in the first language facilitates the development of the same skills in the second language (Cummins, 1979, 2001).

In further demonstrating the theoretical framework behind his hypothesis, Cummins (1983, 1984) dismisses previous claims of a separation between L1 and L2, and strongly argues for a relationship between L1 and L2. His hypothesis not only shows that existing relationship but also places an emphasis on the effect(s) of literacy in the mother tongue and on the learning of second language. Cummins' frequent use of this very hypothesis in recent years to suggest that bilingual readers who are literate in their L1 have a channel available to them as they develop literacy in their L2 has sparked considerable interest worldwide.

Further studies continued to support Cummins' hypothesis. For example, Catherine McBride-Chang (2004) work on *Children's Literacy Development* links home literacy with school performance to demonstrate that children who develop early reading skills in their mother tongue will perform better than children who have no early reading skills at home (McBride-Chang, 2004). In the same vein, Feitelson and Goldstein's study (1986, as cited in McBride-Chang, 2004) showed evidence that sixty percent of the pre-schools in Israeli neighbourhoods where children tend to do poorly do not have a single book (McBride-Chang, 2004). In contrast pre-school children in Israeli neighbourhoods where children had a tendency to do well in school had families who owned fifty-five books each on an average (Feitelson and Goldstein, 1986)

3.2 Predictions

Based on the extensive research evidence supporting both the cross-linguistic transfer of L1 to L2 and the effect(s) of mother tongue literacy on second language learning, this study predicts the following:

1. Lack of early literacy experience at home (i.e. playing word games, learning letters of the alphabet with parents) will affect Wolof children' decoding skills at school. Thus, first-year Wolof learners will show low levels of decoding skills at school.
2. As Wolof children advance in learning French, literacy experience would increase over time. Thus, third-year Wolof learners' levels of decoding skills would improve, but at what pace and with what difficulties?
3. Lack of early exposure to print associated with images (i.e. sharing story-book reading with parents at home) will affect Wolof children' meta-linguistic awareness to conceptualize visual images from printed words at

school. Thus, first-year Wolof learners will show low level of meta-linguistic awareness at school.

4. As Wolof children advance learning French, meta-linguistic awareness would be enhanced. Thus, third-year Wolof learners' ability to conceptualize images from printed words would increase.
5. Lack of reading skills in Wolof tends to hinder the acquisition of reading comprehension in L2 French. Thus, first-year Wolof learners will show low levels of comprehension when completing reading tasks in L2 French.
6. As Wolof children advance learning French, comprehension would increase over time. Thus, third-year Wolof learners would improve their levels of comprehension when completing reading tasks in L2 French.

3.3 Research questions

The present study is designed to address the following questions:

1. To what extent do Wolof children's experiences about reading reflect their reading performance at school?
2. Are Wolof children able to identify conceptual categories from visual images and establish associations with printed words?
3. What levels of reading comprehension do Wolof children achieve in L2 French?
4. What is the effect of further exposure to reading practice in L2 French on children's overall reading comprehension?

4 Research methodology

4.1 Participants

In this study, sixty Wolof children who are learners of French as a second language will be recruited from the student population of approximately two thousand students unequally distributed in twenty- one classes in Touba primary schools. All children will be enrolled in their first Initiation Course (CI) by the time the study begins. They will follow a regular school schedule that starts at 8 am and ends approximately at 3 pm Monday through Friday.

All participants will be enrolled in the first grade, unequally divided between boys (30%) and girls (70%). Because of the school policy recruitment implemented by the Senegalese Ministry of Education to promote girls education in the last six years, there will be more girls enrolled in the first year than boys. The age of first grade children ranges from six to seven years old and third grade children from nine to ten years old. The first grade children will not know how to read in L2 French, but third grade children will be in their third year of reading the French language. Children will be randomly selected from these corresponding classes, and the first grade children and the third grade children will be tested at the end of the school year; therefore, children in both groups will be finishing their respective school years. For example, first grade children will already have two semesters of exposure to reading in the L2 French. Therefore, by the time the study starts, they will know how to read in L2 French but at a beginner level.

4.2 Procedure

The instruments for this study consist of a semi-structured interview, picture-word identification and association, and a French reading comprehension passage. The tasks will elicit complementary quantitative and qualitative data analysis.

First, the pre-reading interview task will be conducted orally in Wolof for all groups. The interviews will be videotaped and subsequently transcribed into English. Due to the considerable number of children involved in the pre-reading interviews, the questionnaires will be very brief, and the time allocated to each interview will be two minutes. All the first and third grade children will be interviewed in the same manner.

Second, in the picture-word identification and association task, a set of eight words randomly associated with eight pictures will be given to the first year children. A set of eight sentences randomly associated with eight pictures will be given to the third year children. A very short time (less than 2 minutes) will be allocated to this task to see if Wolof children are able to identify concepts from visual images and establish associations with printed words in a short period of time. It is expected that the third grade Wolof children who have been exposed to reading may carry out the task more easily than the first grade who never been exposed to print before. Thus, this picture-word identification and association will further confirm the first task, and may show more concrete evidence of pre-reading experience from both groups of children.

Third, there will be a reading comprehension passage administered to examine children's abilities to extract meaning from a story written in French. Children's reading comprehension will be measured through multiple-choice questions and three open-ended questions. The two groups will complete the

reading comprehension separately but simultaneously to avoid any inconsistency. The questions are written in English to conform to PIRLS' proficiency guidelines, but they will be translated into French. These French translated texts will be submitted to independent translators to ensure reliability and to make sure that content is verified by language experts. The passage will be also designed using criteria descriptive of the four areas of reading comprehension identified in the document released by PIRLS in 2006 (PIRLS, 2006). The total time allocated to this reading comprehension test for the first grade children will be approximately forty minutes, and the total time allocated for the third grade children will be thirty minutes.

5 Conclusion

This study is one of the first in Senegal that examines how Wolof children develop literacy in a second language (French) without literacy in their mother tongue (Wolof). It will contribute to the literature allowing for more research into understanding the complex nature of the relationship between mother tongue literacy and second language learning. For the past fifty years, a considerable number studies have focused on the written native languages (English, Spanish & French) yet few studies have investigated unwritten native languages. In that particular respect, the aim of this study is to find out how Wolof children who do not develop literacy in their mother tongue (Wolof) learn a second language (French).

Based on the extensive research evidence on both the effect(s) on L1 literacy on L2 learning and the cross-linguistic transfer across languages (UNESCO, 1953; Cummins, 1979, 1984; Gonzalez, 1977; Wagner, 1998), this study predicts that the lack of literacy skills in L1 (Wolof) hinders the acquisition of reading comprehension in L2 (French). If this turns out to be the case, it will have pedagogical implications for the Senegalese educational system and encourage collaboration with educators and linguists to start developing new language policy and curriculum which would require Wolof children at the elementary level to read and write in Wolof before learning the L2 French. In that particular respect, Senegal would then consider following the model of many western African countries (e.g. Nigeria, Mauritania) where children are required to develop literacy earlier in their mother tongue before learning a second language.

References

- Cummins, J. (2000). *Language, power and pedagogy: Bilingual children in the crossfire*. London: Cromwell Press.

- Cummins, J. (1984). Implications of bilingual proficiency for the education of minority language students. In P. Allen, M. Swain, & C. Brumfit (Eds.), *Language issues and education policies: Exploring Canada's multilingual resources* (pp. 176-250). Oxford: Pergamon Press.
- Cummins, J. (1979). Linguistic interdependence and the educational development of bilingual children. *Bilingual Education Paper Series*, 3, 46, 1-63.
- Gonzalez, G. (1977). *Teaching bilingual children*, " *Bilingual education: Current perspectives*. Arlington, NJ: Center for Applied Linguistics.
- Laughlin, F. (2008). On the origins of urban Wolof: Evidence from Louis Descemet's 1864 phrase book. *Department of African & Asian Languages & Literatures & Program in Linguistics University of Florida*. 715- 735.
- Mamadou, D. (1983). Organe d'informations des éducateurs. *Le Pédagogue*, 2, 79-165.
- Modiano, N. (1968). National or mother tongue in beginning reading: A comparative study. *Research in the Teaching of English*, 1, 32-43
- Sparks, R., Patton, J., Ganshow, L., & Humbach, N. (2008). Long-term cross linguistic transfer of skills from L1 to L2. *College of Mt. St. Joseph Language Learning*, 59, 203-243.
- Swigart, L. (1992). Two codes or one? The insiders' view and the description of code switching in Dakar. *The Journal of Multilingual and Multicultural Development*, 13, 83-101.
- Toukoma P., & Skutnaab-Kangas, T. (1976). The intensive teaching of the mother tongue to migrant children of pre-school age and children in the lower level of comprehensive school. *The Finnish National Commission For UNESCO*, 34, 150-172.
- Verhoeven, L. (1994). Transfer in bilingual development: The linguistic interdependence hypothesis revisited. *Language Learning*, 44, 381-415.
- Verhoeven, L. & Aarts, R. (1998). Attaining functional literacy in the Netherlands. In A. Y. Durgunoglu & L. Verhoeven (Eds). *Literacy development in a multicultural context: cross-cultural perspectives* (pp. 111-134). NJ: Lawrence Erlbaum.
- UNESCO. (1953). The use of vernacular languages in education. *Monographs of Fundamental Education*, 8. Paris: UNESCO.
- Wagner, D. (1998). Putting second language first: Language and literacy learning in Morocco. In A.Y. Durgunoglu & L. Verhoeven (Eds). *Literacy development in a multicultural context: Cross-cultural perspectives* (pp. 169-183). NJ: Lawrence Erlbaum.
- Wagner, D. (1989). Does learning to read in a second language always put the child at a disadvantage? Some counter-evidence from Morocco. *Applied Psycholinguistics*, 10, 31-48.

- Wai, M. C., Shek, K., Tse, J., Lam, E., & Yee, L. (2009). Progress in international reading literacy study (PIRLS): Pedagogical correlates of fourth-grade students in Hong Kong. *Journal of Research in Reading*, 3, 293–308.

Student attitudes toward their instructor accents in L2 Spanish and French Courses

Carmen Miranda-Barrios
University of British Columbia

The controversy about language instructors' accents (i.e., the manner of pronunciation) has mainly targeted the perceptions and attitudes of learners of English as a foreign and second language (ESL/EFL). Some studies have consistently shown a tendency for English language learners to favour an instructor with a native-speaking accent or the ability to speak like a native (Butler, 2007; Derwing, 2003). However, less is known about this topic in Romance language learning.

The current study analyzed the attitudes and preferences that learners of two Romance languages have towards their instructor's pronunciation of the target language. The study also examined student attitudes toward their instructors' accents on their own pronunciation and comprehension of the second language (L2). The participants were 20 third-year learners of Spanish as a foreign language, and 20 third-year learners of French as a second language at a multicultural post-secondary institution in Canada. The data were collected through an attitudinal questionnaire (quantitative data) and a semi-structured interview (qualitative data).

It was predicted that students would prefer an instructor with a native accent over an instructor with a non-native accent because of a facilitative effect on their pronunciation and comprehension of the L2. Results showed that both clusters of language learners (Spanish and French) favoured an instructor with a native accent. Further, the results also showed the belief that an instructor's native accent has a positive effect on their L2 pronunciation, but not on their L2 comprehension. Qualitative results pointed to the strengths and limitations students believe each type of instructor accent offers to the language classroom. Furthermore, suggestions for the L2 classroom were proposed.

1 Introduction

Instructors' pronunciation has been a controversial topic in second language (L2) learning. The evidence from empirical research on the area of language attitudes indicates that learners of English as a second/foreign language (ESL/EFL) prefer a native pronunciation over an accented one; however, less is known about this topic in other second languages, such as Spanish and French. The study was

motivated by the author's speculation that learners of Romance languages, such as French and Spanish, also share the same tendency or attitude towards preferring an instructor with a native accent that English learners have shown. Furthermore, it was predicted that the participants would prefer native-speaking instructors because of positive impact on their L2 pronunciation and L2 comprehension. The second motivation of this study was based on the need for empirical research on the issue of learners' attitudes toward their instructors' pronunciation in languages other than English (e.g. Spanish and French).

2 Background

2.1 Literature review

"Accent", a familiar term among academics and the public in general, is derived from the Latin *accentus*, meaning chant or song. "Accent" refers to the manner of pronunciation of a language (The New York Oxford American Dictionary, 2001). In everyday life, speakers around the world are constantly exposed to different accents. When learning a second or foreign language, students can be exposed to a range of native and non-native accents from their instructors of the target language. Lippi-Green (1996, p.165) stated that accents could also be the carryover of native language phonology and intonation into a target language, resulting in what she calls a "diagnostic of identification of geographic and social outsiders." Furthermore, some scholars argue that there is abundant evidence that individuals generally are not able to achieve a native-like accent in an L2 unless they are exposed to it at an early age (Gass, 2001, p. 336). However, this hypothesis is also facing a lot of controversy (Bialystok 1988; Birdsong, 1992).

However, does accent matter much in instructed language learning? The topic of accent has been a controversial issue among scholars (Medgyes, 1992; Paikeday, 1985; Stern, 1983); however, at the end of the past century, there has been a shift in linguistics training toward accepting and respecting instructors with non-native accents (Callahan, 2006, Roberts & Garden, 1997). Furthermore, Cook (2000) coined the term "L2 user" instead of "non-native speaker," arguing that people who speak a second language are users of that language, moving beyond the term non-native speaker.

This preliminary study focused on learners' attitudes or perceptions toward instructors' accents. Baker (1992) stated that attitude is a hypothetical construct used to explain the direction and persistence of human behaviour. In the linguistic context, language attitude studies have been used to examine preferences, reasons for learning a language, or uses of languages being studied—and accent preferences have not been the exception. Studies targeting the perceptions and attitudes of English language learners towards their teachers' pronunciation have shown that learners favour a native-speaking accent and

disfavour a non-native one (Butler, 2007; Chiva, Matsuura, & Yamamoto, 1995; Derwing, 2003; Scales, Wennerstromm, Richard, & Wu, 2006). However, studies on this same topic in Romance languages appear to be few. This is the case for Spanish and French, where little is known about student preferences in terms of instructor accents. In the US, due to the increasing Hispanic population, there are some studies comparing student attitudes toward English and Spanish instructors' accents. The findings showed that students of both languages generally have a preference for a native speaking instructor (Callahan, 2006). In terms of the French language, little is known of L2 French pronunciation and student attitudes toward their instructors' accents. In Canada, the majority of studies are focused on language policy-making, culture and/or the effectiveness of French immersion programs (Bournot-Trites, 2005; Krawczyk, 1984).

This study aimed at exploring the perceptions and beliefs of learners of Foreign Language (FL) Spanish and L2 French learners at a multicultural university in Canada, and at contributing, with empirical evidence, to an understanding of student attitudes toward their instructors' accents in these two Romance languages.

2.2 Research questions

The present study was designed to address the following three questions:

- (1) What kind of accent do learners of Spanish and French prefer?
- (2) To what extent do learners of Spanish and French consider their instructor's accent important for improving their L2 pronunciation?
- (3) Is there a motivation among learners of Spanish and French to choose between a native and a non-native speaking instructor in order to improve their L2 comprehension?

2.3 Predictions

Based on previous findings regarding learners' perceptions on ESL/EFL instructor accents, this study predicted that L2 learners of Spanish and French would:

- (1) have a tendency to favour instructors with a native accent over an instructor with a non-native one.
- (2) believe that a native speaking instructor's accent has a positive effect on their L2 pronunciation.

- (3) consider a native speaking instructor as having the potential to improve their L2 comprehension.

3 Methodology

3.1 Participants

The participants were 40 full time students in third-year FL Spanish and L2 French language courses at a post-secondary institution in Canada. Seventy percent ($N = 28$) of the group were females and 30% were male ($N = 12$). The age range was between 19 and 45 years (mean 21.72 SD 4.78). Seventy percent ($N = 28$) were L2 English speakers, while 30% ($N = 12$) had English as a first language. The rationale behind selecting students at this level was that third-year students have already been exposed to a variety of French and Spanish instructors. Therefore, it was very likely that the participants had already been taught by both native-speaking instructors and non-native speaking ones. Participants were equally divided in two cohorts: FL Spanish ($N = 20$) and SL French ($N = 20$). All participants were asked to fill out a background questionnaire.

3.2 Instrument

A two-part instrument was designed for this study: an attitudinal questionnaire (hereafter the questionnaire); and a semi-structured interview (hereafter the interview). The questionnaire consisted of 18 mirror statements where participants were asked to choose their preferred accent variety from a 5-point *Likert* scale, with 1 being “Strongly Agree” and 5 being “Strongly Disagree.” (For example: “Non-native speaking teachers understand my problems with pronunciation more easily”; “Problems related to my pronunciation are seldom understood by native-speaking teachers.”) The questionnaire was divided into three topics: (1) The learner’s preferences for an instructor’s native or non-native pronunciation, (2) the instructor’s accent and its effect on the improvement of the student’s L2 pronunciation, and (3) the effect of the instructor’s accent on student’s comprehension of the target language. All 18 statements were organized randomly.

The interview consisted of two open-ended questions to elicit qualitative data based on the participant’s experiences of having instructors with both accent varieties. The interview was designed with the following in mind: (a) whether the instructor’s accent was considered important for the participant and why; and (b) reasons for preferring one accent over the other. The instrument was written in English; therefore, both cohorts completed the same research tool. Translated versions into Spanish and French were avoided so as not to jeopardize the

ecological validity of the instrument. Participants completed the two-part instrument only once.

3.3 Procedure

All 40 students were recruited from six language classrooms. Students volunteered to participate in the study. On the testing day, participants completed an informed consent document and responded to the background questionnaire. They took approximately 30 minutes of their time to fill out the two-part instrument individually. Participants filled out the instrument once. The investigator was present.

4 Results and discussion

A series of three one sample *t*-tests were run simultaneously to test the three hypotheses about both cohorts of participants for the three themes surveyed. The alpha was set at .05.

4.1 Results for theme 1: Learner preferences for an instructor's native accented or non-native accented pronunciation

The twenty FL Spanish cohort preferred to have an instructor with a native-speaking accent (mean 1.38) rather than an instructor with accented Spanish (mean 0.98). The result of a one-sample *t*-test confirmed this tendency since the results showed that the mean difference between the two variables was statistically significant, $t(19) = 11.160$ $p < 0.005$.

Likewise, the SL French students also showed a preference for a native-speaking instructor (mean 1.27) rather than an instructor with a non-native accent (mean 0.58). The result of a one-sample *t*-test confirmed this tendency since the results showed that the mean difference between the two variables was statistically significant, $t\text{-test}(19) = 9.174$ $p < 0.005$. This result supported the prediction that participants would show a preference for an instructor with a native speaking accent over a non-native speaking one.

4.2 Results for theme 2: Instructor accent and its effect on the improvement of student L2 pronunciation

Similar to theme 1, the results for theme 2 showed a preference for an instructor to have a native-speaking accent. The FL Spanish cohort believed that a native accent (mean 0.7000) has a positive effect on their accuracy to pronounce the L2 Spanish sounds. The results of a one-sample *t*-test confirmed this tendency since the results showed a significant difference between the two variables, $t\text{-}(19) =$

4.136, $p < 0.005$. The French cohort again showed a similar tendency ($n=20$, mean 0.47), preferring a native accent over a non-native one ($n=20$ mean 0.2), $t(19) = 4.273$, $p < 0.005$. Both cohorts' results supported the prediction that learners believe an instructor with a native accent has a positive effect on their L2 pronunciation.

4.3 Results for theme 3: The instructor's Spanish/French accent and its effect on the improvement of students' L2 comprehension.

The data did not uphold the prediction for theme 3. The FL Spanish cohort did not manifest a preference for an instructor with a native-speaking accent (mean 0.03) over an instructor with a non-native speaking accent (mean -0.02) for better comprehension of L2 Spanish aural input. The result of a one-sample t -test showed that the mean difference between the two variables were not statistically significant, $t(19) = .165$, $p > 0.4355$.

The SL French cohort also did not manifest a preference for an instructor with a native-speaking accent (mean 0.03) over a teacher with a non-native one (mean -0.05) to better comprehend L2 French aural input. The one sample t test result showed that the mean difference between the two variables were not statistically significant, $t(19) = .567$, $p > 0.5$. As mentioned, this result rejected the hypothesis that learners of FL Spanish and SL French would have a preference towards instructors with a native accent because they consider that a native accent has a positive effect in their L2 comprehension.

4.4 Qualitative Results

The results from the interview showed that both cohorts expressed popular beliefs regarding native-speaking instructor speech (e.g., beneficial, proper, authentic, natural). The Spanish group placed importance on the sociolinguistic aspect of the language; in other words, the cultural component that they think is inherent to a native-speaking instructor. However, the French cohort placed more importance on oral proficiency and the academic qualifications of the instructor. The majority of their answers showed a preference for having a native-speaking instructor in French in order to reach the oral proficiency or pronunciation they desired. Likewise, both groups mentioned that native speaking instructors tend to speak English less in the classroom when teaching the target language. Notice also that non-native speaking teachers were perceived to have stronger abilities in teaching the mechanics of grammar as well. Consider these examples of comments:

- Sp 5: Native speakers because they share more than the accent, they share a culture with the class.

- Fr 10: For me, it is important that instructors know how to teach the language, of course, if they have oral proficiency that is also beneficial.
- Sp 15: I prefer native speakers for the genuine and natural way in which they speak, and because they are less likely to revert back to English during the class to explain things.
- Fr 1: I believe non-native speaker instructors are very good in teaching grammar, and perhaps they can acquire a good pronunciation but that is rare.

However, in relation to the topic of L2 comprehension, neither cohort showed a tendency or preference. The majority of the participants answered that both native and non-native speakers could be hard to understand.

5 Conclusion

The findings for this preliminary study suggest that in fact accent is a topic of importance among learners of FL Spanish and SL French. However, it seems the tendencies were not alike. Results suggest that FL Spanish students favour native pronunciation for reasons different from those of L2 French learners. The former were interested in the cultural component of the language, while the latter were more interested in the academic qualifications and oral proficiency of their instructor. Nevertheless, both cohorts demonstrated proclivity towards learning the target languages without the use of the English language.

Although this was a first approach, the study represents a promising start towards understanding language learners' attitudes in languages other than English, such as Spanish and French. However, this study should be replicated in order to validate the two-part instrument and the tendencies found. A new study should increase the number of the mirror statements to strengthen the instrument and should be applied to students in first level Spanish and French language courses. A future study should also attempt to verify whether a native accent really has a positive effect on L2 production, as well as identify the elements of instructor pronunciation that may affect student L2 comprehension skills.

References

Baker, C. (1992). *Attitudes and Language*. Philadelphia: Multilingual Matters.

- Birdsong, D. (1992). Introduction: Whys and why nots of the Critical Period Hypothesis for second language acquisition. In D. Birdsong (Ed.), *Second language acquisition and the critical period hypothesis*. 1-22, Mahwah, NJ: Lawrence Erlbaum Associates.
- Bialystok, E. (1988). Levels of bilingualism and levels of linguistic awareness. *Developmental Psychology*, 24, 560-567.
- Bournot-Trites, M. (2005). Standards for the language competence of French: Is there a Danger of Erosion? *Canadian Journal of Education/Revue canadienne de l'éducation*. 28(3), 487-507.
- Butler, Y. (2007). How are normative-English-speaking teachers perceived by young learners? *Tesol Quarterly*, 41(4), 731-755.
- Callahan, L. (2006). Student perceptions of native and non-native speaker language instructors: A comparison of ESL and Spanish. *Stigma*, 18, 19-49.
- Cook, V. (1999). Going beyond the native speaker in language teaching. *Tesol Quarterly*, 33, 185-210.
- Cook, V. (2002). *Portraits of the L2 user*. Toronto: Multilingual Matters. 1-28
- Derwing, T. (2001) ESL learners' perceptions of their pronunciation needs and strategies. *System*, 30, 155-166.
- Dörnyei, Z. (2003). *Questionnaires in Second Language Research: Construction, Administration, and Processing*. New Jersey: Erlbaum, Mahwah.
- Gass, S. & Selinker, L. (2001). *Second language acquisition: an introductory course*. New Jersey: Lawrence Erlbaum Associates.
- Jewell, E., Abate, F. (Ed.). (2001). *New Oxford American Dictionary*. (1st. Ed.), Oxford University Press.
- Krawczyk, A. (1984). *Unit of Canadian Culture and its effects on student attitudes*. Vancouver: University of British Columbia.
- Lippi-Green, R. (1997). *English with an accent: Language, ideology, and discrimination in the United States*. London: Routledge.
- Medgyes, P. (1992). Native or non-native: who's worth more? *ELT Journal*, 46(4), 340-349.
- Paikeday, T.M. (1995). *The native speaker is dead!* Toronto, New York: Paikeday Publishing.
- Roberts, J. & Garden, T. (1997). [Cited in Callahan]. Native or non-native speaker teachers of foreign languages? Old and new perspectives on the debate. *Teanga: Journal of the Irish Association for Applied Linguistics*, 17, 1-28.
- Scales, J., Wennerstrom, A., Richard, D., & Wu, S. (2006). Language learners' perceptions of accent. *Tesol Quarterly*, 40(4), 715-725.

Language use in Nunavut: a view from the World Englishes paradigm

Jennifer A. J. Hinnell
Simon Fraser University
jhinnell@sfu.ca

This project is an initial examination of language use in Nunavut with respect to the World Englishes theoretical framework. It explores the characteristics of the Three Concentric Circles as defined by Kachru (1990) to explain English language spread and use, and aims to place indigenous languages in the Inner Circle in this characterization. In particular language use in Canada's newest northern territory, Nunavut, is profiled and the following issues examined: do the Inuit in Nunavut share more with speech communities in the Outer Circle than with the current characterization of language use in the Inner Circle?. Consequently, does the World Englishes framework need to be re-examined to take into account the realities of language use and users in indigenous communities of the Inner Circle? Furthermore, are there current approaches to minority/regional languages in Outer Circle countries (Africa is used as a case study here) that can inform discussion around language maintenance and shift for indigenous speech communities in Canada?

1 Introduction

In their discussion of the global spread of English, Kachru and Nelson (2001:13) note that with respect to English-speaking countries "there is seldom if ever a question of any language other than English being used in an extensive sense in any public discourse." However, in Canada, aside from the well-known sociolinguistic situation in Francophone Quebec, another very viable speech community exists in Nunavut, where the Inuit language is a primary means for communicating in both public and private domains.

In the World Englishes research paradigm, Kachru (1990) proposes a sociolinguistic framework for examining the users and uses of English around the world. Within this model, research has focused primarily on the Expanding and Outer Circles, while emerging varieties and uses of English in Inner Circle countries has received less focus (Genée 2010a). Language issues that are critical to indigenous communities in Inner Circle countries, such as the emergence of distinct varieties of English, the impact of English on heritage languages, and the

multilingualism of aboriginal communities, have received little attention (Genee 2010b).

This paper examines language use in the northern Canadian territory of Nunavut within the context of the World Englishes framework. In particular, the following research questions are examined: Firstly, do the Inuit share more with speech communities in Outer Circle countries than their location in an Inner Circle country suggests? Secondly, what are the approaches towards minority/regional languages in Outer Circle countries that can inform discussion in Canada? And finally, can an examination of Nunavut inform research on the WE framework regarding Inner Circle countries? This paper will first examine the main tenets of the World Englishes framework, followed by a brief macro-sociolinguistic overview of language use and current policy in Canada's North. Minority language situations in Outer Circle countries are examined to serve as a comparison, and the paper concludes with initial responses to the research questions and directions for further research.

2 The World Englishes paradigm

In order to place this discussion within the World Englishes model, a brief overview of the main focus points of the paradigm is warranted. Kachru and Nelson (2001) describe two diasporas of the spread of English: the first was the migration of substantial numbers of English speakers from the British Isles to Australasia and North America; the second was the migration of small numbers of English speakers to Africa and Asia. Kachru uses a model of Three Concentric Circles to explain the users and uses that resulted from these two diaspora. The Inner Circle is comprised of the countries where English is the first or dominant language, and is the primary language in media, government, education and culture: United States, Britain, Canada, Australia and New Zealand. The Outer Circle includes those countries where, largely as a result of colonization, English retains a large role in the institutions, education, governance, culture and other nation-wide functions, and has official status: India, Nigeria, Singapore to name a few. In contrast, the Expanding Circle countries are those where English is used in various functions and is widely studied, but for more specific purposes than in the Outer Circle. That is, in Expanding Circle countries in Europe, as well as China, Indonesia, Iran, and Japan for example, English is frequently the language of science and technology research, education and business.

This characterization of Englishes reflects the different uses of the language. The notion of English as the language of 'native speakers' is dismantled in favour of a description of the 'users and uses' of English. This more accurately captures the multitude of varieties of English that emerge as English is a language of many domains, for example, of hip-hop in Korea (Lee 2004), of academia in Germany (Hilgendorf 2005, 2010), business in Japan,

national literature in the Philippines (Miguel Syjuco, 2010 winner of Mann Asian Literary Prize, personal conversation) and many others.

In examining English use in the World Englishes framework, it becomes apparent that, despite Canadian Indigenous communities' location in the Inner Circle, there are key characteristics of language use that they share with Outer Circle speech communities. An examination of language use in Nunavut will allow further examination of this comparison.

3 Language use in Nunavut

Data from the 2006 Census reveal that Inuktitut is one of only three Aboriginal languages in Canada spoken by enough people that long term native-speaker use is likely (along with Cree and Ojibway) (Statistics Canada, 2007). As the only one of these three speech communities to participate in provincial or territorial government in their aboriginal language, the Inuit community deserves unique attention. Currently, only a minority of the Aboriginal population in Canada is able to speak or understand an Aboriginal language. According to 2001 Census data, of the 976,300 people who identified themselves as Aboriginal, 235,000 (24%) reported that they were able to conduct a conversation in an Aboriginal language. These figures are markedly better for Inuit people. However, indigenous language use in the Inuit community is on the decline: in the 2006 census 64% of Inuit in Nunavut reported speaking an Inuit language at home. This is down 10 percentage points from the 74% reporting Inuit language use in the home in the 1996 census (Statistics Canada, 2007).

In 1969 Canadian parliament adopted its first federal Official Languages Act, which declared English and French to be Canada's two official languages, and equal in status. It also set out the rights of Canadians 'to communicate with the federal government and its institutions in their official language of choice' (Canada, 2009:4). This act governed Canada's provinces and territories, including the North West Territories, from whose territory Nunavut was divided. With its creation in 1999, Nunavut carried over all the territorial laws that had applied in the North West Territories, including the Official Languages Act. In June 2009, however, Nunavut's Legislative Assembly, with the approval of the Senate required by the constitution to change its language provisions, adopted its own Official Languages Act, giving the Inuit language (defined as Inuktitut for most of Nunavut, and Inuinnaqtun in some of Nunavut's western communities) the same status as English and French for the purposes of providing territorial government services. In doing so, the five other native languages that had been protected in the Northwest Territories, were no longer official languages. These were Cree, Chipewyan, Dogrib, Gwich'in, and Slavey, cumulatively spoken by less than 1% of the population of Nunavut.

The second key policy in Nunavut is the Inuit Language Protection Act,

which ‘guarantees the right to Inuit Language instruction in Nunavut’s school system and the right to work in the Inuit Language in territorial government institutions’ (Canada, 2009:13). Currently in Nunavut there are four main languages spoken: English, French (a small minority), and the Inuit languages Inuktitut and Inuinnaqtun. However, as reported to the Standing Senate Committee on Legal and Constitutional Affairs, English is the language of public administration, commerce, and increasingly the home (2009:15). The Inuit Language Protection Act is designed to protect, restore and revitalize the Inuit Language.

The collaborative process that yielded the new Act has been praised by the Standing Senate Committee as a ‘veritable model for language relations in Canada,’ and ‘a new paradigm for official languages in the North’ (2009:18). In the Committee’s view,

[...] in exchange for this surrender of territory [the Nunavut Land Claims Agreement], the Government of Canada committed itself to supporting the Inuit’s rights as an Aboriginal people, including their cultural and linguistic rights. This commitment must be expressed not only through ‘fine words’ but also by providing adequate and sustained financial resources to the citizens of Nunavut and assisting in their efforts to enhance, promote and protect their linguistic heritage. (2009:20)

The Senate Committee’s passing of the amendment and the enactment of the Inuit Language Protection Act have together had broad implications for education in the North. Currently parents have the choice between Inuktitut, English or French as the language of instruction through grade 3, and by 2019 Inuit language instruction will be available for all grades.

These are changes in language policy that attempt to ensure the use of the Inuit languages in formal domains. This supports Kachru and Nelson’s declaration that “the concept of monolithic English as the exponent of culture and communication in all-English-using countries has been a convenient working fiction that is now becoming harder and harder to maintain” (2001:13). Even Inner Circle countries are not monolingual English nations, and Nunavut is challenging this notion of monolingualism as the norm. Through policy that enacts multilingualism as the ‘norm’ in official capacities, as well as educational language policy that establishes full schooling in Inuktitut, Nunavut seeks to establish higher levels of proficiency and greater ranges of use for the Inuit languages.

However, despite these policies, the impact of English on the use of Inuktitut has been well documented (Dorais, 1997 and 2000; Patrick, 2003). Youth responses to a Statistics Canada study show that they are concerned about

language use in informal contexts:

[Inuit youth] expressed concern that as they use and hear English more frequently, they are losing their ability to speak Inuktitut well. Many also report speaking English more than when they were children. At the same time, many youth associate Inuktitut with their identity, traditional knowledge, and culture; for some, losing Inuktitut can affect their sense of belonging, leading to feelings of marginalization and exclusion. While youth are making a concerted effort to use Inuktitut in daily activities, they also identify a need for support through family, community and education, with opportunities to learn, hear and use it. (Statistics Canada, 2007:26)

This statement echoes researchers' concerns that language maintenance and acquisition cannot be accomplished solely through the classroom, and that legislating language policy does not necessarily result in changes to language use (Patrick, 2003; Dorais, 2000; Kamwangamalu, 2010). The question thus remains as to whether the policy initiatives regarding language use in official capacities, as well as educational language policy to establish full schooling in Inuktitut can counteract the opposing forces that lead to continued decrease of use of Inuktitut in the home.

4 Vernacularization in Outer Circle countries

Returning now to the comparison within the World Englishes paradigm, it can be seen that the issues encountered in Nunavut are similar to those in Outer Circle countries. Kamwangamalu (2010) discusses the vernacularization of African languages in the face of English hegemony. He defines vernacularization as the use of indigenous African languages in higher domains such as education, business and government (Kamwangamalu, 2010:1,9). One of the primary barriers to this lies in the structural and ideological favouring of English as the dominant language in Outer Circle countries (and arguably any country given the global use of the language) (Kamwangamalu, 2010).

There have been a variety of theoretical approaches to explain the uses and spread of English within the context of globalization. Phillipson (1992) and Pennycook (2007) posit neo-colonialism as a reason for the continued dominance of English over regional languages. As the term suggests, this approach highlights the continued use of English as a language of the elite by post-colonial rulers, and suggests that they do so in conspiracy to 'keep down' the masses. An alternative view, termed the 'grassroots theory', proposes that the current motivation (importantly not to be equated with historical motivation) that individuals and communities demonstrate for English is economic and pragmatic

(Ager, 2001; Brutt-Griffler, 2002; Wright, 2010). This view considers language users as agents who make informed choices about their language use. The emphasis here lies not in the maintenance or revitalization, or even use, of a heritage language, but rather in the power of the user to best determine the language that serves him/her in a given context.

Kamwangamalu shares Patrick's (2003) concern regarding the mistaken belief that making a heritage language official and a language of instruction in schools will be enough to improve its range and depth of use. Like the authors cited above, Kamwangamalu sees globalization as a major influence in continued colonial language dominance. However, while he suggests that the question of language use in the face of English hegemony needs more attention, he suggests a third alternative, positing that language use needs to be seen through a lens of language economics, not one of neo- or post-colonialism.

Defining language economics as the interplay between linguistics and economic variables, Kamwangamalu (2010) argues that, in Africa, users need to see the economic advantage in their African languages, otherwise the attractions of English will continue to be overwhelming and colonizers' model of the world will continue to influence language policy. In asking how to assign economic value to African languages, Kamwangamalu turns to economic questions of language shift and maintenance. He suggests that ridding African languages of the stigma existing since colonization that indigenous languages are unsuitable for advanced learning, in addition to linking access to employment with certified knowledge of African languages, are critical in improving the economic value of African languages. Nettle and Romain support this approach when they assert: "True development of a political, economic or social nature cannot take place unless there is also development of a linguistic nature" (2000:172).

There are numerous successful case studies of vernacularization: Chinese Mandarin in Singapore (Gupta, 1997); regional official languages in India (Gopinath 2008); Basque in Spain (Le Page, 1997); Welsh and Maori (Edwards, 2004). Kamwangamalu (2010) suggests that regions that have successfully negotiated the vernacularization of their minority language often share one thing in common: they view language as a commodity with an economic value that brings tangible economic benefit to its users.

The question being asked in this paper is: can Nunavut be included in this list? While language policy making Inuktitut and Inuinnaqtun official languages and thus guaranteeing their use in early education, government process and territorial services, will ensure they are alive in the 'imaginary', the actual use and function of the language is decided at the individual level and is driven by the economic value of the language in use.

5 Conclusions and further research

Returning to our research questions, it has been shown that Nunavut does indeed share many significant characteristics of language use in the Outer Circle, represented here as the African context. In summary, the Outer Circle is characterized by English language use in official (formal) domains, while regional languages are used in informal domains: the home, primary school. As we have seen, however, Inuit languages are losing ground in informal uses, despite gaining power in formal use due to policy innovations. Furthermore, language use in the Outer Circle is acutely affected by the global power of English; again this is consistent in Nunavut. Lastly, in both Nunavut and the Outer Circle cases viewed here, language economics plays a large role; it is critical to language users in both regions that the cultural value in their language be matched by economic value so as to ensure its continued use across all domains. The discussion on language economics, globalization and the hegemony of English invites further examination in the context of Nunavut, as these issues impact language use, and influence any success of policy-driven changes. It follows that the issues of language maintenance and the dominance of English are also shared concerns in both regions.

With regards to the theoretical framework of the World Englishes paradigm, I posit that a more in-depth macro-sociolinguistic examination of language use in Nunavut will yield developments in characterizing language use in Inner Circle countries. English use and users in those countries have to date been described as primarily monolingual. As this paper has demonstrated, this portrayal of Inner Circle countries requires a re-examination.

References

- Ager, Dennis. (2001). *Motivation in language planning and language policy*. Clevedon: Multilingual Matters.
- Brutt-Griffler, Janina. (2002). *World English: a study of its development*. Clevedon, UK: Multilingual Matters.
- Canada. Parliament. (2009) Standing Senate Committee on Legal and Constitutional Affairs. *Language rights in Canada's North: Nunavut's new Official Languages Act: final report*. Ottawa: Parliament. Web.
- Dorais, Louis-Jacques. (1997). *Quaqtaq: modernity and identity in an Inuit community*. Toronto: University of Toronto Press.
- Dorais, Louis-Jacques, and Susan Sammons. (2000). Discourse and identity in the Baffin Region. *Arctic Anthropology* 37 2: 92-110.
- Edwards, Viv. (2004). *Multilingualism in the English-speaking world*. Malden MA: Blackwell Publishing.

- Genee, Inge. (2010a). Canadian Indigenous Englishes as distinct varieties. Paper presented at the 16th annual conference of the International Association of World Englishes, Vancouver.
- Genee, Inge, & Stigter, Shelley. (2010b). Not just 'broken English': some grammatical characteristics of Blackfoot English. *Canadian Journal of Native Education* 32: 62-82.
- Gopinath, Chinnam. (2008). *Globalization: a multidimensional system*. Los Angeles: Sage Publications.
- Gupta, A. (1997). When mother tongue education is not preferred. *Journal of Multilingual and Multicultural Development* 18: 496-506.
- Hilgendorf, Suzanne K. (2005) 'Brain Gain statt (instead of) Brain Drain': The Role of English in German Education. *World Englishes* 24.1: 53-67.
- Hilgendorf, Suzanne K. (2010). English and the global market: The language's impact in the German business domain. In *Language and the Market*, eds. H. Kelly-Holmes & G. Mautner, 68-82. Houndmills, UK: Palgrave-Macmillan.
- Kachru, Braj B. (1990). World Englishes and applied linguistics. *World Englishes* 9.1: 3-20.
- Kachru, Braj B., & Nelson, Cecil L. (2001). *World Englishes. Analysing English in a global context: a reader*, eds. Anne Burns and Caroline Coffin, 9-25. London: Routledge.
- Kamwangamalu, Nkonko M. (2010). Vernacularization, globalization, and language economics in non-English-speaking countries in Africa. *Language Problems & Language Planning* 34.1: 1-23.
- Le Page, Robert B. (1997). Introduction. In *Vernacular Literacy: A Re-Evaluation*, eds. A. Tabouret-Keller, R. Le Page, P. Gardner-Chloros and G. Varro, 1-20. Oxford: Clarendon Press.
- Lee, Jamie Shinhee. (2004). Linguistic hybridization in K-Pop: discourse of self-assertion and resistance. *World Englishes* 23.3: 429-450.
- Nettle, Daniel, and Romaine, Suzanne. (2000). *Vanishing Voices: The Extinction of the World's Languages*. Oxford: Oxford University Press.
- Patrick, Donna. (2003). Language socialization and second language acquisition in a multilingual arctic Quebec community. Language socialization in bilingual and multilingual societies, ed. Robert Bayley, 165-181. *Bilingual education and bilingualism*, 39. Clevedon, GBR: Multilingual Matters.
- Phillipson, Robert. (1992). *Linguistic imperialism*. Oxford: Oxford Univ. Press.
- Pennycook, Alastair. (2007). *Global Englishes and transcultural flows*. New York: Routledge.
- Statistics Canada. (2007). Aboriginal languages in Canada: emerging trends and perspectives on second language acquisition. *Canadian Social Trends* 83.19-27. Catalogue No. 11-008. Web. 28 July 2010.

Wright, Sue. (2010, July). *English and Europe: the legacies of nationalism, the requirements of Europeanization and the influence of globalization*. Plenary presented at the 16th conference of the International Association of World Englishes, Vancouver.

Ukrainian language in Canada: From prosperity to extinction?

Khrystyna Hudyma
University of Saskatchewan

In this paper I want to explore in what way and due to what factors the Ukrainian language in Canada evolved from being a mother tongue for one of the biggest country's ethnic groups to just an ethnic language hardly spoken by younger generations. Ukrainian was brought to the country by peasant settlers from Western Ukraine at the end of the 19th century; therefore, it is one of the oldest heritage languages in Canada. Three subsequent waves of Ukrainian immigration supplied language retention; however had their own language-related peculiarities.

Initially, the Ukrainian language in Canada differed from standard Ukrainian, with the pace of time and under influence of the English language they diverged even more. Profound changes on phonetic, lexical and grammatical levels allow some scholars to consider Canadian Ukrainian an established dialect of standard Ukrainian.

Once one of the best maintained mother tongues in Canada, today Ukrainian experiences a significant drop in number of native speakers and use at home, as well as faces a persistent failure of transmission to the next generation. Although, numerous efforts are made to maintain Ukrainian in Canada, i.e. bilingual schools, summer camps, university courses, the young generation of Ukrainian Canadians learn it as a foreign language and limit its use to family and school settings. Such tendency fosters language shift and puts Canadian Ukrainian on the brink of extinction in the nearest future.

1 Introduction

The first records of immigrants arriving from the territory of modern Ukraine to Canada go back to 1892, and thus, have more than a century of history. The reasons that made people leave their homelands changed over time; however, the problems most of them faced remain almost the same. As long as they were speakers of a language other than English, they always faced the dilemma of language maintenance.

According to statistics, the Ukrainian ethnic minority was quite successful in preserving their culture, traditions and language. Until recently, Ukrainian Canadians had one of the lowest rates of mixed ethnic marriages and one of the

highest percentages of mother tongue speakers among the ethnic communities in Canada (Sekirin, 1994; Struk, 2000). However, last decades have shown a rapid decline in native speakers of Ukrainian. According to Danylo Struk (2000), one of the main reasons is that the language has ceased to be an ethnic identifier. Ukrainian dancing, wedding ceremony, and a different calendar have become the main identifiers of Ukrainian ethnicity.

2 Historic Background

In order to better understand changes Ukrainian undergoes in Canada it is important to examine in detail the dynamics and history of Ukrainian immigration to Canada.

More than 300,000 Ukrainians from different regions of Ukraine, of different cultural and educational background have arrived in Canada from 1892 (Swyripa, 1999; Kostyuk, 2007). They immigrated in four different waves, each of which had its own peculiarities.

The first wave of Ukrainian immigration to Canada started in the 1890s and lasted until the beginning of World War I in 1914. Most of the new settlers were illiterate peasants from the western Ukrainian regions of Galicia and Bukovina in the Austro-Hungarian Empire looking for new lands and better economic conditions. Thus, these immigrants concentrated in the parkland belt of the Prairie Provinces – Alberta, Saskatchewan, and Manitoba (Swyripa, 1999; Hryniuk, 1991; Lehr, 1991).

The second wave of immigration occurred during the inter-war years. It brought 68,000 people, primarily peasants from western Ukrainian territories, by then part of Poland and Romania (Swyripa, 1999). The main flow of immigrants continued to come from Bukovina and Galicia. In addition, for the first time, immigrants began to arrive from Volyn, which also became a part of Poland. Most of the immigrants were still farmers, the unskilled and semi-skilled, who were being pushed out of their homeland by the bleak economic and political future which they faced. They still sought land in Canada, but the good homesteads were gone, and they had to choose between free land, which was poor or too far from settlement, or better land at a price. However, the second wave immigration group also included domestic workers, political refugees and members of the Ukrainian army which had been fighting against Poland and the Russian Communists. The pull of non-farm jobs was increasing and more and more new immigrants were drawn to Canadian cities and towns (Martynovych, 1991; Marunchak, 1982).

The third wave lasted for five post-war years, from 1947 to 1952 (Swyripa, 1999). These settlers were mostly displaced persons, many of whom had been taken from homes in Ukraine to work as slave labourers in Germany. When the war ended they did not want to return to their homes because of the Soviet

takeover of Ukraine. These immigrants included skilled workers, professionals, scientists and musicians. For the most part they tended to settle in the urban centres (Marunchak, 1982).

The fourth wave of Ukrainian immigration to Canada has started after the collapse of the Soviet Union. This group consists of qualified professionals who settled for the most part in big cities of Eastern Canada (Kostyuk, 2007). In comparison to the first three waves, this group has thus far been the smallest numerically. Furthermore, while immigrants from the first three waves tended to settle in homogeneous clusters, both urban and rural, the latest Ukrainian newcomers to Canada choose predominantly to live in urban centres. These factors facilitate losing their ethnic identity in general and rapid language shift in particular (Holmes, 1992).

3 Statistical Data Regarding Present State of Ukrainian in Canada

Canada 2006 Census shows that there were an estimated 1,209,085 persons of Ukrainian origin (3,9% of population) residing in Canada (mainly Canadian-born citizens), making them Canada's ninth largest ethnic group, and giving Canada the world's third-largest Ukrainian population behind Ukraine itself and Russia. However, the number of Ukrainian speaking population is much lower. In 2001, there were about 147,400 speakers of Ukrainian in Canada. Provincially, the largest Ukrainian speaking population resides in Ontario (about 48,620). Ukrainophones there, however, are a small percentage of the population, while on the Prairies the percentage is much higher (Alberta – 1.15%, Manitoba – 2.4%, Saskatchewan – 2.04%). Very few Ukrainian speakers are present in both Atlantic and Northern Canada. Even more troubling is the “rate of language shift” indicator (i.e., the rate at which a person switches from using the mother tongue to using the majority language). Ukrainian has the rate of 76.5%, exceeded only by Dutch (87.2%). Germans (71.2%), Italians (50.6%), Poles (37.9%) and all the other nationalities have a smaller rate with Chinese at 15.5% being the lowest (Struk, 2000).

According to statistics, from 1961 to 2006 the Ukrainian language in Canada experienced a rapid decline in native speakers (from 361,496 in 1961 to 134,505 in 2006). In terms of routine family use at home, Ukrainian is also marginal, although there are some recent developments. According to Canada 1996 Census, 49,985 individuals identified Ukrainian as the language used routinely at home, whereas in 2001 the number soared to 67,665, however declining more than by half in 2006. The reason for such rapid growth might be in the fact that at the turn of the 21st Century mass immigration from Ukraine gathered pace, thereby facilitating the increase in numbers of individuals using Ukrainian language at home. A sharp decrease might be explained by the fact that Ukrainian newcomers tend to settle in big urban areas and are more inclined

to assimilate, and, therefore, the process of language shift may be completed even within one generation. Another factor contributing to the decline of Ukrainian language use at home is the fact that the last post-war wave of Ukrainian-speaking immigrants has largely disappeared as a significant statistical category, whereas their children and grandchildren show no interest in retaining the heritage language (Sekirin, 1994). Thus, over the last twenty years, the number of young people speaking Ukrainian has decreased dramatically. For instance, among young generation of Canadian Ukrainians, between the ages of 15 and 20 years, only 20% wish to maintain their mother tongue, and 78% prefer to speak English or French (Pendakur, 1990). Among the Ukrainian youth, only 13% in Montreal and 17% in Toronto wish Ukrainian to be their home language (Sekirin, 1994).

This decrease can be explained by the fact that now fourth and fifth-generation Ukrainians have developed in Canada. These young people do not have a strong commitment to the Ukrainian language. Furthermore, the percentage of young Ukrainians who are ready to create a mixed ethnic couple rose from 17% to 73% over the last 30 years. Moreover, only one-fourth of Ukrainian mothers in Canada pass on their mother tongue to their children (Kral, 1991). Ukrainians born in Canada are, slowly and surely, coming to think and feel like Canadians (Sekirin, 1994).

4 Differences between standard Ukrainian and Canadian Ukrainian

The speakers of a minority language are always facing the influence of a dominant one, and a shift towards the majority language often happens within 3 generations (Fishman, 1989). The Ukrainian minority has so far resisted full assimilation into Canadian society. Nevertheless, the influence of English and of other social factors on the Ukrainian community has caused language change (Sekirin, 1994). However, it is worth noticing that Ukrainian brought to Canada was not standard Ukrainian, and then the mainland and Canadian varieties diverged even further. The main differences between Standard Ukrainian and Canadian Ukrainian are the following:

1. Canadian Ukrainian evolved from south-western dialect of standard Ukrainian. Therefore, it has many Polish, German, and Romanian loanwords.
2. Canadian Ukrainian has considerably fewer Russian borrowings, when compared to standard Ukrainian.
3. Canadian Ukrainian has experienced strong influence of other languages used in Canada, especially of English.

Interference of the English language can be observed on different levels, namely on phonetic, lexical and syntactic.

Phonetic level of the Ukrainian language in Canada indicates a strong influence of the English phonetic system. Thus, several considerable changes can be singled out:

1. Ukrainian fricative glottal /ɦ/(/ʕ/) is usually substituted by /h/.
2. Both Ukrainian dental /l/ and /li/ became English alveolar /l/.
3. Ukrainian dental plosives /d/, /t/ became corresponding English alveolar plosives.
4. Diphthongization of Ukrainian vowels.

Changes on the lexical level came to existence from the earliest years of Ukrainian settlement in Canada. Characteristic usage of English words but in Ukrainian manner gave name to the jargon of new immigrants. It was called Ukish, once a popular mixture of both Ukrainian and English languages, which gradually lost its significance, and is barely used today. Ukish was born to the fact that when the first Ukrainians came to Canada in the late 19th century they found themselves in a strange land with many elements of daily life which did not correspond to, or were different from what they knew (Struk 2000), therefore they borrowed English equivalents for naming different objects, but accommodated them into the rules of Ukrainian grammar. Thus, for example, all English borrowed nouns acquired the category of gender with corresponding gender-marking affixes (Sekirin 1994); they (nouns) were also changed according to number and case.

In 1965, Alexander Royick collected samples of classical Ukish in Alberta. As the selected examples from his work show English intrusions were absorbed into the Ukrainian language and acclimatized there (Rojick, 1965): Box -> [baksynky; baksy], Exhibition -> [atsybyshyn], Pie -> [paja], Buns -> [bansy], Cookies -> [kukisy], Train -> [tryna], Fight (v) -> [fajtuvatysja], Drive (v) -> [drajvuvaty], Farm (v) -> [farmaruvaty].

Although one can still hear this type of classical Ukish, it is becoming rare. As any living language Ukrainian in Canada is undergoing constant changes. Contemporary language, for instance, does not readily adopt English words into Ukrainian but brings lexical items in their English form (Struk, 2000):

- Ja dav tobi ti samples (instead of “sempli”)

- Os' mij file (instead of "mij fail" or "moja fajlja")

Changes on the lexical level of the Ukrainian language in Canada have also affected the category of naming. First Ukrainian settlers felt very uncomfortable with their Slavic names and surnames which gave away their foreignness and, therefore, tried to make them sound more like Anglo-Saxon ones. Several peculiarities in first name changing might be observed:

- Adopting English variants of Ukrainian Christian names (Ivan > John, Olena > Helen), or the closest sounding English names (Vasyl > William (not Basil))
- Translating of Ukrainian names into English (Slava > Glory, Liubov > Love, Vira > Faith)
- Diminutives become standard variants both of Ukrainian and English names (Nadia < Nadija, Olia < Olja, Mike < Michael).

Some Ukrainians also tried to modify their surnames for a better fit into the English system. They either completely changed the surname (full assimilation), e.g. Khibetskyi > Chilleyback; Shchur > Stewart, Borshch > Kennedy) or deleted one or several syllables, so that a surname would resemble English (partial assimilation). Partial assimilation occurred in different parts of the word (Zhuktenko 1990):

- Initial (Smerechanskyi > Chanski)
- Final (Bezkorovajnyi > Besko)
- Elimination of the middle part (Vavryniuk > Warnuk)

Interference of English on the syntactic level is also quite common. Speakers of Ukrainian usually copy English syntactic structures and fill them with Ukrainian words:

- Ja maju velyku pryjemnist ... (Canadian Ukrainian)
I have a great pleasure....
vs.
- Meni duzhe pryjemno ... (Standard Ukrainian)

- Ja duzhe vdovolena z mojim prizvyshchem. (Canadian Ukrainian)
I am very satisfied with my last name.
vs.
- Ja duzhe vdovolena svojim prizvyshchem. (Standard Ukrainian)

However, there is also a reverse process of Ukrainian language influencing English of Canadian Ukrainians, especially on the lexical level. Intrusion of Ukrainian words into English usually occurs when words relate to things particularly Ukrainian (Struk, 2000):

- I haven't seen you at zabava (*reception*) last night.
- How was the Malanka (*Ukrainian folk holiday*)?
- Our baba (*grandma*) is visiting us for Christmas.

Given the linguistic differences on phonetic, lexical and syntactic level between standard Ukrainian spoken in Ukraine and Ukrainian spoken in Canada, some scholars consider the latter to be an established dialect of the former (Zhuktenko, 1990).

5 Conclusion

Most of the Ukrainian diasporal history is linked with various attempts at language preservation – numerous bilingual schools of then and now, Saturday/Sunday schools, the persistent insistence of the community that knowing the language is of great importance. Despite the preoccupation with language retention there seems to have been and still is an enormous amount of confusion as to the desired result of language maintenance: was it to be an active skill, i.e., to be in daily and constant use, or was it to be just a “symbol of ethnic identity”? Therefore, having preserved its communicative role for more than a century Ukrainian language in Canada changed functionally (Struk 2000, Zhuktenko 1990). Iraida Gerus-Tarnavetska (1984) noticed that for the majority of modern Ukrainian Canadians Ukrainian is not their mother tongue, but a foreign language, which is used on rare occasions. Studies have shown that where there is no home and school use of the language, all that can be learned of a language is useful only for group identification and such minimal knowledge is not only insufficient for active use but might not even survive transmission to the next generation (Struk 2000). Therefore, the present state of Ukrainian language indicates that within 100 years it went through a transition from being a “mother

tongue” for Canadian Ukrainians to becoming a “heritage language” barely spoken by a young generation and now is seriously endangered.

References

- Fishman, J. (1989). *Language and ethnicity in minority sociolinguistic perspective*, Clevedon, Avon, England, Philadelphia: Multilingual Matters.
- Gerus-Tarnavetska, I. (1984). *The Canadization of the Ukrainian Language*, New Soil and Old Roots. Ukrainian Experience in Canada, Winnipeg: University of Manitoba press.
- Holmes, J. (1992). *Introduction to Sociolinguistics (Learning about Language)*, London and New York: Longman.
- Hryniuk, S. (1991). 'Sifton Pets': *Who Were They?*, Canada's Ukrainians: Negotiating an Identity, ed. by Stella Hryniuk and Liubomyr Luciuk, University of Toronto Press.
- Kostyuk, S. (2007). *Canada and Saskatchewan through their Eyes: Survey of Recent immigrants from Ukraine*. Analytical Report, Sergius Press: Kyiv – Saskatoon.
- Kralt, J. (1991). *Ethnicity, Immigration and Language Transfer*, Ottawa, Department of Multiculturalism and Citizenship.
- Lehr, J. (1991). *Peopling the Prairies with Ukrainians*, Canada's Ukrainians: Negotiating an Identity, ed. by Stella Hryniuk and Liubomyr Luciuk, University of Toronto Press.
- Martynowych, O. (1991). *Ukrainians in Canada: The Formative Period, 1891-1924*. Edmonton: Canadian Institute of Ukrainian Studies Press.
- Marunchak, M. (1982). *The Ukrainian Canadians: a history*, 2nd ed., Winnipeg and Ottawa.
- Pendakur, R. (1990). *Speaking in Tongues: Heritage Language Maintenance and Transfer in Canada*, Ottawa: Policy and Research, Multiculturalism Sector.
- Royik, A. (1965). *Lexical Borrowings in Alberta Ukrainian*, University of Alberta Press.
- Sekirin, P. (1994). *Endangered Dialect: Sociolinguistic Study of the Ukrainian Language in Canada*, Sociolinguistic Studies and Language Planning, Proceedings of the XVIth annual meeting of the Atlantic provinces linguistic association.
- Struk, D. (2000). *Between Ukish and Oblivion: The Ukrainian Language in Canada Today*. // www.utoronto.ca/elul/Struk-mem/Works/Between-Ukish.pdf, retrieved on February 10, 2011.

- Swyripa, F. (1999). *Ukrainians. Encyclopedia of Canada's Peoples*. Toronto: Multicultural History Society of Ontario
<http://www.multiculturalcanada.ca/Encyclopedia/A-Z/u1>, retrieved on February 10, 2011.
- Zhluktenko, Y. (1990). *Ukrainska mova na linhvistychnij karti Kanady*, Kyiv: Naukova dumka.

Reinventing the linguistic landscape of a national protest

Corinne A. Seals
Georgetown University
Cas257@georgetown.edu

The relatively new field of linguistic landscapes takes as its goal the investigation of language in place and space. Drawing on previous notable linguistic landscape theories, I look to uncover how abstract space can become reappropriated and reinvented to create visibility for a suppressed minority. More specifically, I examine how the ever-shifting landscape of a mass protest can use a “landscape of dissent” to change erasure into visibility. This project focuses on documenting the linguistic landscape of the National Immigration Reform March that took place in the National Mall of Washington, DC on March 21, 2010. Over 200,000 people attended this protest, with thousands of images and signs coming and going, constantly reinventing the landscape over the course of the day. To conduct a qualitative multimodal analysis, I collected data focusing on written words, images, spoken words, and the mix of all of these within projected video. The data include over 200 photographs and five videos taken over the course of four hours. By focusing specifically on 32 photographs and three videos that best represent each aspect of the landscape, I uncover how individual and group identities are created and constantly shifting, while at the same time interacting with and supporting each other. I conclude by showing how an image of solidarity emerges by reinventing the landscape to transform erasure into visibility and power.

1 Introduction

The field of linguistic landscapes is a fairly new subfield of linguistics, though quickly growing, investigating the meaning and purpose of language in place and space. Previously, researchers of linguistic landscapes have primarily relied on quantitative sampling, defining a space and counting the instances of language use within that space to understand how language is being socially or politically used. The purpose of this paper is to take the investigative methods for the linguistic landscape, which include a mixture of linguistics, semiotics, anthropology, and sociology, and to apply them in a qualitative way that would work for investigating the ever-shifting landscape of a mass-scale protest. In

choosing to analyze the landscape of a protest, I am most interested in examining how this “landscape of dissent” is able to change erasure into visibility. Erasure here draws from Coupland and Jaworski’s definition, “where specific sociolinguistic evidence is rendered invisible in the drive to keep stereotyped generalizations intact,” (2004: 37). In this paper, I am interested in how a community that is erased in the public sphere is able to so drastically alter the landscape through a protest that they create visibility.

1.1 The Setting

Protests can inherently be mammoth, especially when they target current issues in the national or international context. Washington, DC provides the perfect arena for investigating such a protest, as people travel from around the country to take part in a large movement centered in the nation’s capital. As such, I decided to focus this project on documenting the linguistic landscape of the National Immigration Reform March that took place in the National Mall on March 21, 2010. The National Mall is located in the very center of Washington, DC and is a large expanse of grass running from the Capitol building to the Washington Monument, slightly over one mile in length. During the National Immigration Reform March, over two hundred thousand people attended this protest, filling the entire expanse of the National Mall. The presence of the protesters was mammoth, with thousands of images and signs constantly reinventing the landscape over the course of the day. Due to the constant shifting and fleeting elements of the landscape, I am examining *moments* in time of the protest to find a general qualitative overview of what the landscape of a protest looks like over the course of time, similar to the methodology applied by Pavlenko (2010) in her investigation into the historical landscape of Kyiv.

2 Theoretical Background

In order to answer the question, “How is a landscape of dissent constructed over the course of a protest, and what does it look like?” I draw from multiple social and sociolinguistic theories. Leeman and Modan discuss how the visibility of languages can be, and often are, controlled by a governing body, leading to a “sanitized” linguistic landscape (2010: 187). Therefore, I first establish that the landscape of a protest is unique as a site where a community that is essentially erased and “sanitized” by the majority becomes visible through their dissent as a community of practice. Eckert and McConnell-Ginet (1992) define a community of practice as “an aggregate of people who come together around mutual engagement in an endeavor. Ways of doing things, ways of talking, beliefs, values, power relations—in short, practices—emerge in the course of this mutual endeavor,” (464). In the case of a protest, the mutual endeavor is to create

visibility for the contested issue; in this case it is national immigration reform. In becoming a community of practice, albeit a temporary one, the group establishes temporary norms for speaking and representing themselves and their voices. This can be analyzed visually through linguistic landscapes.

To further theoretically ground the multiple elements of a protest, I look first to Lefebvre's concept of "abstract space" (1991). With this theory, Lefebvre explains how abstract space is always changing and reflective of the social, which is exactly the essence of a protest. The particular social aspect that this protest is reflecting is the current contestation over United States immigration policy. Thus, the landscape of the protest is responding to this current issue. Further grounding individual aspects of a protest, Halliday (1978) explains that signs tell us something about the world and position us in relation to someone or something in it. Therefore, the signs present at a national immigration reform protest, including any written or printed words or images meant for public display, tell people about this issue, the effects that the current immigration policy has on groups of people, and ask people to then position themselves either in alignment or disalignment with the protesting group. The reaction that is elicited from people is part of Scollon and Scollon's "discourse of place" (2003). As they explain, within a "discourse of place", space is transformed by signs, and people react to this transformation. When this occurs, the abstract space becomes reappropriated and reinvented in a way that creates visibility, which is part of what makes a national protest such a striking linguistic landscape.

In addition to the reappropriation of space, I am analyzing how images other than signs influence the linguistic landscape and what type of symbolic capital each image draws upon. Barthes (1968) emphasizes that every image in society becomes a sign, even clothing. Thus, I include in my analysis clothing with words, clothing without words, flags, and video projected during the protest. Each contributes to the linguistic landscape in a meaningful way, whether through invoking a particular group through an image or by engaging the surrounding people in a dialogue of sorts. Each of these also draws on a particular type of symbolic capital: embodied or institutional (Bourdieu, 1986). While embodied capital is achieved through personal narratives and experiences, institutional capital is achieved through reference to institutions and by engaging with them.

Finally, the presence of defined groups within a protest is intriguing because of the repetition of image they create, especially if they are wearing matching clothing or carrying matching signs. Tannen (2007) explains that in discourse, "repetition is evaluative: It contributes to the point. Here falls the function of repetition which is commonly referred to as emphasis" (60). Furthermore, in formal semantics research, Lengye (1988) found that repetition in the form of semantic couplets leads to cohesion in the discourse. If we extend Lengye's findings to visual discourse, and if we allow for repetition in the

language of a linguistic landscape, it can be argued that each group is creating an emphasis of their own message. Even more important, each of these smaller messages becomes cohesive and is reflective of the metamessage of the protest, the “social and emotional messages behind the literal content of talk,” (Schilling, in press: 12). As a result, the metamessage is strengthened with each instance of repetition. This then reinforces the community of practice’s goal of creating a landscape of dissent and leaves the observer with a lasting impression of the overlying metamessage.

3 Methodology

In applying these concepts to this project, I collected multimodal data of the linguistic landscape, focusing on written words (signs, shirts, etc.), images (signs, colors, presence of groups, and non-verbal representational clothing), spoken words (the languages used and “dialogue” format of projected live video), and looking at how the projected video at the protest includes all of these. The original data includes over 200 photographs and five videos over the course of four hours. It is important to note that the data collected is only that which was sampleable by myself. Thus, this does not include every chant, individual conversations between protesters, every sign, and so forth. The data which I collected, however, do include general photographs of the landscape masses, individual photographs of particular elements of the landscape, and individual videos of projected videos and chants. I collected these as a participant observer and by constantly walking around and through the protest, continuously taking photographs, in an attempt to capture what people were experiencing in different areas and at different times of the protest. At this stage of the research, there were no direct criteria for what was documented, as I was attempting to document as wide a visual sample as possible.

I then categorized the photographs into topics using a grounded theory approach¹ and indexed each photograph with the topics that they represent. I chose to focus on 32 photographs and three videos that best represented each area of focus. My final analysis is a qualitative overview attempting to capture the shifting nature of the protest and takes into account the languages present, purpose of the images, and languages used for addressing the audience in the videos. The analysis also examines how the specific languages used were able to create alignment with the protesting group and distancing from the general public, as well as how individual and group identities are created and constantly shifting in the linguistic landscape.

¹ The grounded theory approach is widely used in qualitative Applied Linguistics research and operates such that theories arise from the data. Data is collected, then coded, then grouped by similarity into modules, and theories arise from analysis of the modules.

4 Data and Analysis²

4.1 Photographs

4.1.1 Reappropriation of Space

Selected photographs from the protest are included below. These pictures show how space was reinvented and reappropriated. In the first photograph in Example 1, the National Mall is shown filling completely with a sea of people, changing an open expanse of grass into one of the nation's largest congregations of people, therein redefining the landscape. Additionally, Example 1 shows the top of mobile restrooms becoming standing room for active protesters (despite the patrol officers attempting to prohibit this use of the space), therein giving the landscape of the protest multiple visual levels not previously present. This was also achieved through the use of flatbed trucks filled with people in the streets, blocking the view of the Capitol building from the Mall (not pictured).

(1) Reappropriated spaces on the National Mall



² Permission was acquired from each photographed individual and group before photographs were taken



Through the use of multiple methods of reappropriation, the space became something new available for redefinition by the protestors, thus giving them a beginning element of visualization and power.

4.1.2 Groups as a Repetition of Image

Groups were also present in the form of political groups, regional groups, religious groups, ethnic groups, and so forth, representing a wide array of people and creating a repetition of image. Each individual group, such as that pictured below in Example 2, have their own individual message in their own words to convey to attendees. This is repeated through matching shirts and signs within the group, emphasizing their message.

(2) One of the groups creating a visual repetition of image

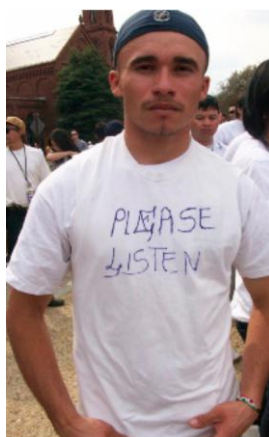


With hundreds of groups present, it is not possible to remember each individual message, but each of these messages is a unique voice being given to the overarching metamessage of immigration reform. As such, repetition at the small group level and larger protesting group level creates an incredibly strong emphasis on the overarching message for immigration reform in the United States that resonates long after the groups are gone.

4.1.3 *Clothing as Capital*

Clothing, verbal and non-verbal was also present in mass quantities. The photograph of the man with “Please listen” handwritten on his shirt in Example 3 shows the power of projecting embodied capital through clothing that is simultaneously functioning as a sign and how the language of this sign engages with the public, especially when one takes into account the fact that his shirt is in English, yet he did not speak any English.³

- (3) A powerful representation of embodied symbolic capital through clothing



This powerful image thus uses clothing as a means of embodied capital to interact with the English speaking general public and get them to emotionally and mentally respond. Additional non-verbal clothing present at the protest, such as a man dressed as an indigenous native, a man dressed as a mariachi, and the priest in full uniform come to represent entire groups of people and an understanding of the cultures being represented through those images, thus bringing these groups to the attention of a majority who may not have otherwise thought of them.

³ I learned this when I asked to take his photograph. When I switched to Spanish to ask for his permission, he also expressed to me his passion for the protest and his hope to relay his feelings to the wider English-speaking audience.

4.1.4 Additional Minority Language Presence

Additionally, the presence of minority languages on signs allowed for the representation of many people, all coming together to form one community of practice with the same message. The two most represented languages were English and Spanish, which also reflects the languages of the United States. However, some of the other languages that make up the languages of the United States were also present at the protest, including but that limited to Polish, Russian, Korean, Chinese, Japanese, Arabic, Italian, and Irish Gaelic.

- (4) Sign in Korean reading “We are also America”

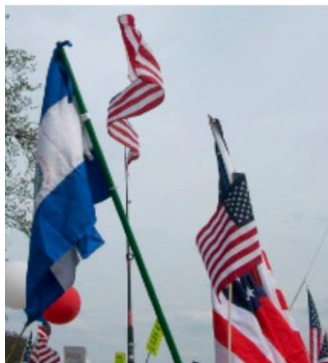


The photograph of the Korean sign in Example 4 is translated as “We are also America,” showing the same message of immigration reform and inclusion, this time interacting with a smaller minority group of people but for the same purpose.

4.1.5 Flags

As minority languages were present next to the majority language of English, so was there a side-by-side representation of minority flags next to the United States flag.

(5) Side-by-side flags from different countries

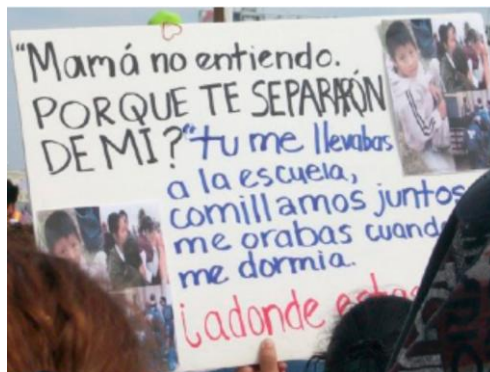


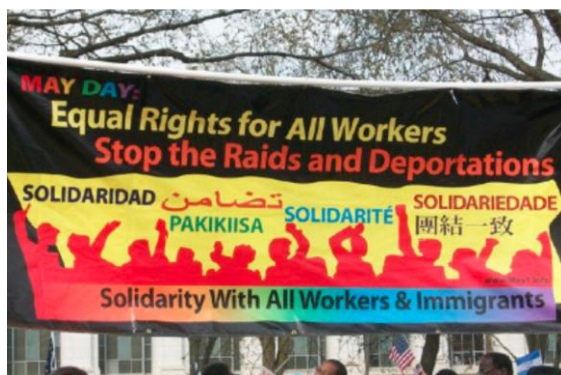
As shown in Example 5, this created a dual-identifying community of practice, one whose message is that they can be both American and citizens of a shared world. Additionally, flags were worn as clothing by protestors, therein coming to represent and identify them completely by their projected dual national identity.

4.1.6 Signs

Additionally, the signs in all different languages access both embodied and institutional symbolic capital. Some signs are handwritten telling personal stories and are thus embodied, such as that shown first in Example 6. Some are printed by companies with general slogans and are institutional, also shown in Example 6. And some are handwritten statements addressing institutional authorities (e.g. “Mr. Obama”) and thus make use of both.

(6) Signs representing embodied and institutional symbolic capital



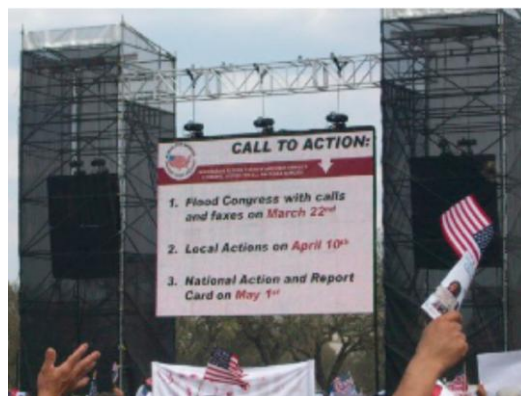


All of these signs in one space create a powerful mixing of embodied and institutional symbolic capital together to share stories and start conversations at all social levels.

4.2 Videos

Videos interact with all of these above elements. The projected live videos included statements read by officials, visual images of maps showing where protesting groups were from, and live interviews with people at the protest. At times, one speaker would speak Spanish and then another speaker would say something completely different in English, not translating each other and therein addressing different groups within the community of practice. At times, two speakers would talk, one in Spanish and one in English, translating each other, and thus reinforcing the dual identity presented in the landscape. A still image from one of the videos, represented to the left in Example 7, shows the call and response format that took part in some of the video, engaging the audience in a dialogue on a mass scale and receiving a strong positive response. It is interesting to note how these uses of projected live video on multiple screens to support the linguistic landscape differed greatly from the video shown near the end of the protest that was prerecorded by President Obama, also shown in Example 7. This video only used English, spoke directly to the audience without engaging them in dialogue, and used only the image of his face and shoulders in front of the American flag in the institutional setting of his office. This particular video received a much different reaction from the protestors, with much silence and some negative reactions.

(7) Contrastive videos on the National Mall



Note also the difference in celebratory raised hands and signs between the two videos. This contrast further emphasized the embodied and institutional symbolic power that the protesting group made use of to create their call for reform through a landscape of dissent.

4.3 Complex Multimodality

Of course, the various elements that make up the linguistic landscape do not occur in isolation. During a mass-scale protest, they all occur at once, making for an incredibly complex multimodal presence. As shown in Example 8, the complex multimodality comes together when all flags, groups, signs, videos, and so forth integrate to create a presence much stronger than any one would be able to do alone.

(8) The complex multimodality making of the linguistic landscape



It is through this complexity that the minority is empowered and erasure changes to visibility.

5 Conclusion

In summary, I found that the linguistic landscape of a protest includes many different modalities that are constantly interacting with and supporting each other. At the immigration reform march, the most prominent languages were English and Spanish, though others were present, representing many of the people currently in the United States. The variety of language presence and duality of presented identity are reflected through side-by-side visual representation of the United States flag with flags from other countries. Additionally, signs throughout the landscape create an image of solidarity within the protesting group and create a distancing from the government, president, and institutions of power. The presence of individual groups within the mass group creates a repetition of image and message. Also, the reappropriation of space on multiple levels strengthens visual presence and symbolic power. Through all of these, the landscape of dissent transforms erasure into visibility and power.

Acknowledgements

Many thanks to Dr. Elana Shohamy, Christian Ortiz, and Greg Niedt for feedback and support on this project. Thank you also to all those who shared their stories with me. Finally, thank you to the NWLC 2011 Organizers.

References

- Barthes, R. (1968). *Elements of Semiology*. New York: Hill and Wang.
- Bourdieu, P. (1986). The forms of capital. In J.G. Richardson, Ed. *Handbook of Theory and Research for the Sociology of Education*. New York: Greenwood, 241-258.
- Coupland, N. and Jaworski, A. (2004). Sociolinguistic perspectives on metalanguage: Reflexivity, evaluation and ideology. In A. Jaworski, N. Coupland, and D. Galasinski, eds. *Metalanguage: social and ideological perspectives*. Berlin: Mouton de Gruyter, 15-52.
- Eckert, P. and McConnell-Ginet, S. (1992). Think Practically and Look Locally: Language and Gender as Community-Based Practice. *Annual Review of Anthropology* 21: 461-490.
- Halliday, M.A.K. (1978). *Language as Social Semiotic: The Social Interpretation of Language and Meaning*. Baltimore, EUA: University Park.
- Leeman, J. and Modan, G. (2010). Selling the City: Language, Ethnicity and Commodified Space. In E. Shohamy, E. Ben-Rafael, and M. Barni, eds. *Linguistic Landscape in the City*. New York: Multilingual Matters, 182-198.
- Lefebvre, H. (1991). *The Production of Space*, translated by D. Nicholson-Smith. Malden, Massachusetts: Blackwell.
- Lengye, T.E. (1988). On the Structure and Discourse Functions of Semantic Couplets in Mayan Languages. *Anthropological Linguistics* (30:1): 94-127.
- Pavlenko, A. (2010). Linguistic Landscape of Kyiv, Ukraine: A diachronic study. In E. Shohamy, E. Ben-Rafael, and M. Barni, eds. *Linguistic Landscape in the City*. New York: Multilingual Matters, 133-152. Cambridge University Press: Chapter 12.
- Schilling, N. (in press). Language, Gender, and Sexuality. In R. Mesthrie (Ed). *The Cambridge Handbook of Sociolinguistics*.
- Scollon, R. and Scollon, S.W. (2003). *Discourses in place: Language in the material world*. New York: Routledge.
- Tannen, D. (2007). *Talking Voices: Repetition, Dialogue, and Imagery in Conversational Discourse*. New York: Cambridge University Press.

KWAK'WALA MODALITY

Stacey Menzies
University of British Columbia

Objective

To present an analysis of how the Kwak'wala modal system is organized based on modal force and conversational background.

Language

Kwak'wala belongs to the Northern branch of the Wakashan language family. It is spoken by the Kwakwaka'wakw people of Vancouver Island and the adjacent mainland. The following data is from my own elicitations with a consultant originally from Kingcome Inlet.

Modal Logic

Modals are quantifiers that quantify over possible worlds. (Kratzer 1977,1981)

- The meaning of modal expressions is composed from the interaction between modal force and conversational background

Modal Force:

- A proposition that is necessarily true is true in all worlds quantified over

$\Box = \forall$
 $\Box p$ = it is necessary that p

- A proposition that is possibly true may or may not be true, given the facts, but it is not necessarily false

$\Diamond = \exists$
 $\Diamond p$ = it is possible that p

Conversational Background:

- Conversational background restricts the possible set of worlds to those compatible with the modal type (Kaufmann 2006)
- A basic distinction is made between epistemic and deontic modal types

Epistemic

Compatible with the speaker's knowledge or evidence

Deontic

Compatible with what is required or allowed according to the rules of the situation

Cross-Linguistic Variation

The interaction between modal force and type varies across languages

	English	
	EPISTEMIC	DEONTIC
NECESSITY	Must	Must
POSSIBILITY	May	May

Modal force is encoded in the lexicon and the modal type is variable and dependent on context

	St'at'imcets	
	EPISTEMIC	DEONTIC
NECESSITY	k'a	ka
POSSIBILITY	k'a	ka

Modal force is variable and the Modal type is fixed and encoded in the lexicon (Rullmann et al. 2008)

There are four possible modal distributions based on the interaction between modal force and modal type

	Fixed Modal Type	Variable Modal Type
Fixed Modal Force	Javanese (Vander Klok 2008)	English
Variable Modal Force	St'at'imcets	?

Research Question: How is the Kwak'wala modal system organized based on the two parameters modal force and modal type?

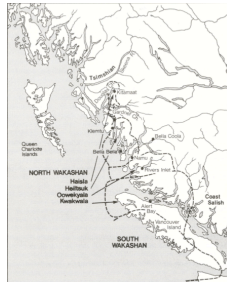
Kwak'wala Modals

Not only is there variation across languages with respect to the interaction between modal force and modal type, but Kwak'wala shows that there is also language internal variation.

- The epistemic modal *xant* appears to have a variable modal force reading, being felicitous in both possibility and necessity contexts. The type of evidence available, like direct sensory evidence or indirect evidence based on previous knowledge, determines the modal force of *xant*. (Peterson 2009)
- tsimasi* appears to have variable conversational background and a necessity modal force. It is felicitous in both deontic and epistemic conversational backgrounds.

Acknowledgments

A huge thank you to my consultant for her endless patience and to Henry Davis, Lisa Matthewson, and Amélia Reis Silva for all of their amazing help.



Deontic Modals

Kwak'wala has one dedicated deontic possibility modal with fixed modal force and a fixed modal type (*wet*)

There is also a weak necessity modal with deontic readings (*tsimasi*)

POSSIBILITY- *wet*

Context: You want to feed the horses and you ask your mom if you can.

Your mom says:

wet-əm-s hámgila-ɣa gí-g'udan

DEON.POSS-FOC-2.SG feed – ACC RED-horse

'You're allowed to feed the horses'

wet also expresses ability

NECESSITY- *tsimasi*

a. Context: There is a sign in the employee bathroom telling everyone that they have to wash their hands.

b. Context: Because of all the health scares, Health Canada recommends that everyone should wash their hands after using the restroom.

wi?la-*tsimasi* tsut-oɣ tsana

everyone-DEON.NECESS wash-2.LOC hands

'Everyone should/has to wash their hands'

- wet* is infelicitous in epistemic possibility contexts

Context: Sally lives on a farm with her mom and dad. One morning her dad asks where she is.

wet-əm hámgila-ɣa gí-g'udan

DEON.POSS-FOC feed-ACC RED-horses

'She is allowed to feed the horses'

Epistemic Modals

The following modals have a fixed epistemic modal type

g'anəm appears to be strictly possibility and is infelicitous in contexts where there is strong inferential evidence available

POSSIBILITY

Context: Salmon berries grow in the summer. You haven't gone berry picking yet so you don't know if the berries are ripe, but it is summer and they are usually ripe at this time of year.

la *g'anəm*-ə tlu-p-i-da q'λmdzək^w

AUX EPI.POSS ripe-3.LOC-DET salmon.berries

'The salmon berries might be ripe'

la-ə-m *xant*-i tlu-p-i-da q'λmdzək^w

AUX-FOC EPI.NEC-3.LOC ripe-3.LOC-DET salmon.berries

'The salmon berries must be ripe'

NECESSITY

Context: Salmon berries grow in the summer. You look outside and see people walking home with baskets and purple hands.

la *xant*-i tlu-p-i-da q'λmdzək^w

AUX EPI.NEC-3.LOC ripe-3.LOC-DET salmon.berries

'The salmon berries must be ripe'

la-ə-m *g'anəm* tlu-p-i-da q'λmdzək^w

AUX-FOC EPI.POSS ripe-3.LOC-DET salmon.berries

'The salmon berries might be ripe'

- Both *g'anəm* and *xant* are infelicitous in deontic possibility and necessity contexts

Context: The berries are ripe and Sally asks if she can pick the berries. Her dad says that she is allowed to.

hems-a-*xant*-i q'λmdzək^w

pick-EPI.NECESS-3.LOC salmon.berries

'She must be picking the salmon berries'

hems-a-*g'anəm*-i-ɣa q'λmdzək^w

pick-EPI.NECESS-3.LOC-ACC salmon.berries

'She might be picking the salmon berries'

Context: The berries are getting so ripe that they will fall off of their branches soon and will rot on the ground. Sally's dad says that Sally must pick the berries.

hems-a-*xant*-i q'λmdzək^w

pick-EPI.NECESS-3.LOC salmon.berries

'She must be picking the salmon berries'

hems-a-*g'anəm*-i-ɣa q'λmdzək^w

pick-EPI.POSS-3.LOC-ACC salmon.berries

'She might be picking the salmon berries'

Discussion

The Kwak'wala modal system does not fit neatly into a modal typology based on the interaction between modal base and conversational background. Evidence from Kwak'wala shows that there is not only variability in the organization of modal systems across languages but there is also variability within languages. For variable epistemic modals like *xant*, the type of evidence provided determines the modal force. The stronger the inferential evidence the more likely it is that *xant* will be glossed as a necessity modal. More elicitation is needed to explore the variability in the modals presented above. It would also be interesting to explore the idea of a scale of modal force, as some modals seem to make stronger statements than others.

References

Boas, Franz. 1911. *Kwakwiltl*. Handbook of American Indian Languages. Washington, D.C.: United States Government Printing Office. Grubb, David. 1977. *A Practical writing system and short dictionary of Kwak'wala (Kwakwiltl)*. National Museum Mercury Series. Ottawa: National Museums of Canada. Kaufmann, Stefan and Cleo Condoravdi, and Valentina Harizanov. 2006. Formal approaches to modality. In William Frawley (ed.), *The Expression of Modality*. New York: Mouton de Gruyter. 71-106. Kearns, Kate. 2000. *Semantics*. New York: Palgrave macmillan. Kratzer, Angelika. 1977. What "must" and "can" must and can mean. *Linguistics and Philosophy* 1: 337-355. Rullmann, Hotze, Lisa Matthewson and Henry Davis. 2008. Modals as distributive indefinites. *Natural Language Semantics*. 16: 317-157. Matthewson, Lisa, Henry Davis, and Hotze Rullmann. 2007. Evidentials as Epistemic Modals: Evidence from St'at'imcets. *The Linguistic Variation Yearbook* 7. Palmer, F.R. 1986. *Mood and Modality*. Cambridge: Cambridge University Press. Peterson, Tyler. 2009. "Epistemic Modality and Evidentiality in Gitksan at the Semantics-Pragmatics Interface." Diss. University of British Columbia.

The First Word Was Not a Noun

Introduction

Research on the origin of language has placed constraints on the time, location, selection pressures, and in what steps language could have emerged. We can now ask questions such as, **“In the evolution of language, which syntactic category emerged first?”**

“Nouns came first.”
Adam Smith ([Smith 1767] Land 1977)
Charles Li and
Jean-Marie Hombert (2002)
Erkki Luuk (2009)

“Verbs came first.”
A. S. Diamond (1959)

Luuk (2009) outlines eleven reasons why nouns would predate verbs, including:

- Verbs presuppose the nouns they act upon
- Children’s early vocabularies are dominated by nouns (although he notes this might not be a universal trait)
- The first stage of second language learners’ acquisition features noun-based utterances that lack verb/argument structure
- There are more nouns than verbs

There is a problem, though, with positing a ‘first’ syntactic category at all; this is the topic of this poster.

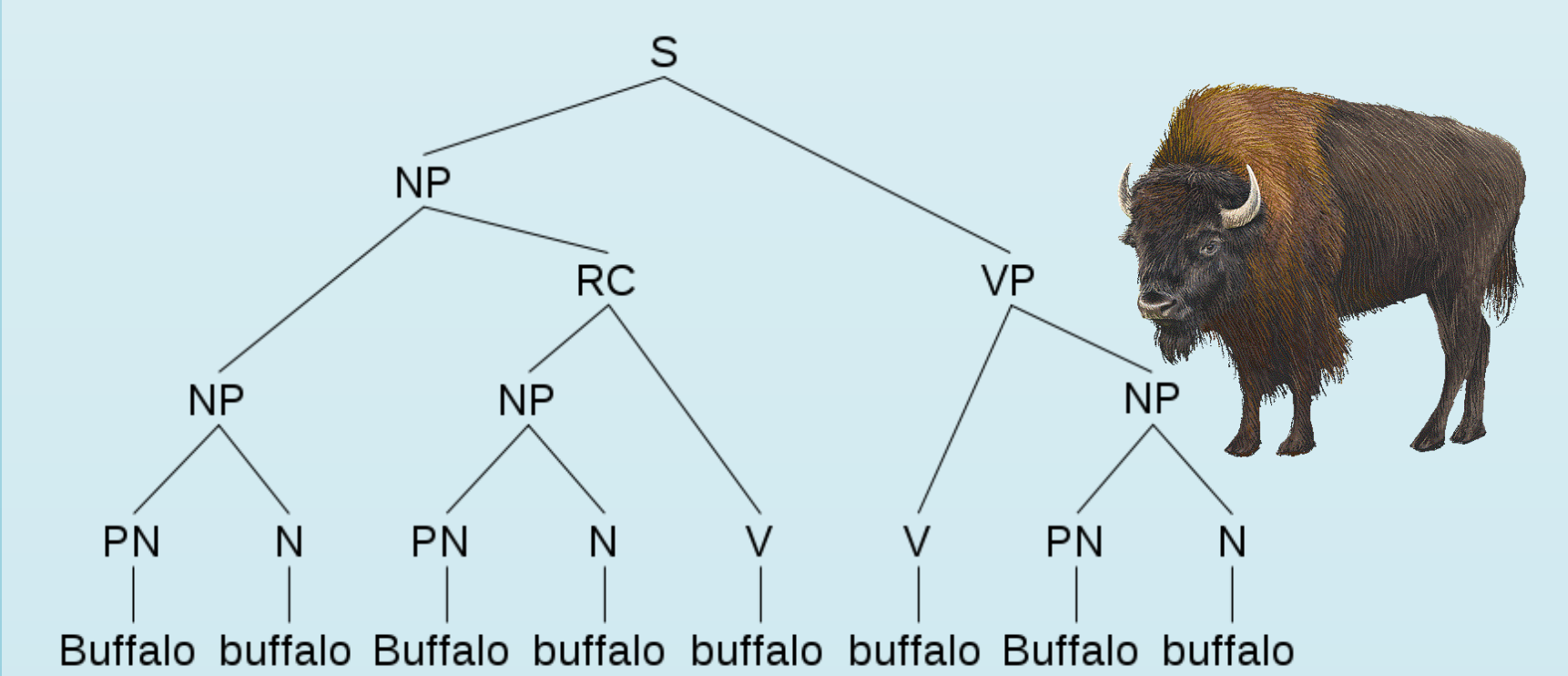


Fig 1. This sentence is grammatical. Can you understand it?

How to define ‘syntactic category’?

All languages contain syntactic categories, although exactly which categories, as well as their behaviour, differ. Historically they have been distinguished in different ways (Evans and Green 2006):

- 1) Semantics 2) Morphology 3) Syntactic relations

In many languages, the same word can be used in different syntactic categories; for example, in Wakashan languages, almost any word root can exist in any open-class part of speech (Gil 2000). In English, too, words such as ‘love’ can exist as a noun, verb or adjective:



“All you need is **love**.” (noun)
“I honestly **love** you.” (verb)
“These are **love** songs.” (adjective)

The semantics of a word therefore does not define its syntactic category. Because of this, syntactic categories are attributed to words by their relationships to other words in a sentence.



Hug!

Fig 2. Is it possible to know if this baby has uttered a noun or a verb?

A word in isolation is category-less.

If a word is attributed its syntactic category by its relationship to other words, and it is an isolated word, it is then simply without category. It is the use of a word that gives it its syntactic category, and outside of a syntactic situation it does not attain that category.

It wouldn’t be until a category was juxtaposed with another, that a contrast would give rise to what we would call different parts of speech.

Conclusion: the first word

Luuk (2009) really only argues that verbs probably did not arise before nouns. These points do not rule out the fact that they could have emerged at the same time.

Because a word in isolation is category-less, I argue that there could be no ‘first category’, because a linguistic relationship is needed for a word to be attributed a category. When syntactic categories first arose, probably as a way of demonstrating these relationships between words, there would have to be a minimum of two to exist. Otherwise any utterance would be category-less.

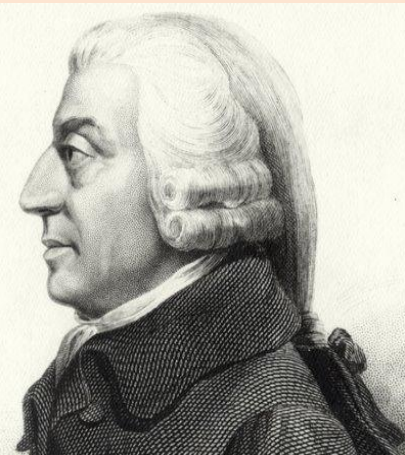


Fig 3. The economist Adam Smith wrote how nouns would have been the first to emerge.

So the first word was not a noun, or a verb, or an adjective... it would only acquire a syntactic category in relation to another utterance. That would mean the emergence of a syntactic category would have to coincide with another, and no language could exist that has simply ‘one’ syntactic category.

References

Diamond, A. S., 1959. *The History and Origin of Language*. London: Methuen & Co.
Evans, V. and Green, M., 2006. *Cognitive Linguistics: an introduction*. Edinburgh: Edinburgh University Press.
Gil, D., 2000. Syntactic categories, cross-linguistic variation, and universal grammar. In: Vogel, P. M., and Comrie, B. *Approaches to the Typology of Word Classes*. Berlin: Mouton de Gruyter.
Land, S. K., 1977. Adam Smith’s “Considerations considering the first formation of languages”. *Journal of the History of Ideas* 38, 677-690.
Li, C. N. and Hombert, J. M., 2002. On the evolutionary origin of language. In: Stamenov, M. and Gallese, V. (eds). *Mirror Neurons and the Evolution of Brain and Language*. Amsterdam: John Benjamins.
Luuk, E., 2009. The noun/verb and predicate/argument structures. *Lingua* 119, 1707-1727.