BOSTON UNIVERSITY GRADUATE SCHOOL OF ARTS AND SCIENCES

Dissertation

ANTI-HOMOPHONY BLOCKING AND ITS PRODUCTIVITY IN TRANSPARADIGMATIC RELATIONS

by

LARRY K. ICHIMURA

B.S., Yamanashi University, 1986 M.A., University of Massachusetts, Boston, 1996

Submitted in partial fulfillment of the requirements for the degree of

Doctor of Philosophy

2006

© Copyright by LARRY K. ICHIMURA 2006

Approved by

Firet	\mathbf{p}_{c}	ച	Δr

Jonathan Barnes, Ph.D.

Assistant Professor of Linguistics

Boston University

Second Reader

Bruce Morén, Ph.D.

Postdoctoral Research Fellow, Center for Advanced Study in

Theoretical Linguistics

University of Tromsø, Norway

Third Reader

Donca Steriade, Ph.D.

Professor of Linguistics, Department of Linguistics and Philosophy

Massachusetts Institute of Technology

ACKNOWLEDGEMENT

I am most grateful to the members of my committee: Jonathan Barnes, Bruce Morén, Paul Hagstrom, Donca Steriade, and Shanley Allen. Jon's precise comments and suggestions guided me to the completion of this dissertation. Without his support, I could not have achieved half of what I have accomplished in tackling this project. I started this dissertation project with Bruce. Despite the distance between us after moving to Norway, Bruce was always the first to give me feedback on my drafts. As a syntactician, Paul advised me from a unique standpoint. Donca has been an inspiration for my research, as she suggested that I conduct the experiments for the productivity of the anti-homophony principle. Shanley has been watching over me with my slow progress in research.

A number of people deserve special thanks. Other faculty in the Applied Linguistic program at Boston University, specifically Cathy O'Connor, Bruce Fraser, and Marnie Reed, also supported me in many ways during my study in the program. I also want to thank my fellow linguists (current and former) in the program for their encouragement: Alejna Brugos, Linnea Micciulla, Kristina Dahlen, Liz Maciejewicz, Evelyn Rodriguez, Aisha Saidi, Rawiah Kabrah, and especially Maria LaMendola for editing the dissertation in a professional manner.

I would like to express my sincerest appreciation to Shohei Okada at Osaka University, Shigeto Kawahara at University of Massachusetts, Amherst, and Koichi Nishitani at Rutgers University, for their constructive criticism. Their opinions and comments as Japanese native speakers helped me tremendously. I also want to give thanks to Arto Anttila, Anthi Revithiadou as well as the members of the Boston

University Phonology Circle who gave me useful comments and advice on the earlier version of this dissertation.

I need to thank my friends and family who gave me moral support on this research endeavor: Yutaka Ohta, Sumiko Oiwa, Yoko and Shingo Yasuhara, Gérard Clément, Alejandro Ruiz, André Cardinalli, Ana Szelest, Makoto Uchida, and especially my mother-in-law Joyce Fukasawa who always understands and supports me. My parents in Japan, Michiteru and Yasuko Ichimura, have given me their unconditional love, even though they have little idea what their son was doing on his research.

I would like to thank Bostik, Inc., my current employer of 12 years, for the gracious financial support for the last 9 years (11 years, including the Masters degree at University of Massachusetts, Boston). A special thanks goes out to my former supervisor Marty Burn and current supervisor John Halbmaier for their understanding on my study and allowing me to be flexible in my hours. They were gracious enough to have been convinced that linguistics helps my career as Director of International Business of an adhesive company.

Finally, but most of all, I would like to express my gratitude to my immediate family. My wife Lisa has been very patient with my never-ending project as I have been glued to the computer every night. I thank her for her love and support. Our 6-year-old son Alex and 3-year-old daughter Mia inspired me by demonstrating the wonder of language acquisition, while raising them bilingually in English and Japanese. They are still too young to understand why their father has been spending day after day on the

same "homework." Someday, I look forward to hearing their comments on this dissertation. This dissertation is dedicated to Lisa, Alex and Mia.

ANTI-HOMOPHONY BLOCKING AND ITS PRODUCTIVITY IN TRANSPARADIGMATIC RELATIONS

(Order No.

)

LARRY K. ICHIMURA

Boston University Graduate School of Arts and Science, 2006

Major Professor: Jonathan Barnes, Assistant Professor of Linguistics

ABSTRACT

This dissertation addresses "anti-homophony blocking" in transparadigmatic relations, where an application of a particular phonological process is blocked in order to avoid homophony creation by neutralization of distinct inputs between morphologically unrelated words.

Past research was concerned with anti-homophony blocking but only within the inflectional paradigm. The possibility that this principle is also applied to transparadigmatic relations has not been pursued. In recent literature, anti-homophony constraints in paradigmatic relations have been proposed (Crosswhite 1999, 2001, among others) within the framework of Optimality Theory (Prince and Smolensky 1993). However, no attempt has been documented that proves that anti-homophony blocking is in fact a productive process. I examine these two key issues: first that anti-homophony blocking applies to transparadigmatic relations; second that it is productive, using a case of anti-homophony blocking in Japanese.

The main data comes from "contracted forms" (Kikuzawa 1935, Toki 1975) in derived environments in Japanese, created by syncope along with lenition or deletion of

that the contraction process and anti-homophony blocking in transparadigmatic relations are accounted for by particular constraints and ranking specific to the contraction grammar. I propose an anti-homophony constraint called CONTRAST, which is integrated into the contraction grammar. Analyses are given as to why homophony is created in inflectional morphology, as it could be counterevidence to my claim of anti-homophony blocking. I will argue that the anti-homophony principle must be phonology-internal which is embedded in the phonological grammar.

I conducted an experiment to test the extent to which anti-homophony blocking is part of the phonological grammar of Japanese, which provides some evidence in support of the claim that contraction and anti-homophony blocking are productive processes. Using a Japanese corpus, I found that there is no positive influence of word frequency and word familiarity on the occurrence and blocking of contractions.

This dissertation concludes that anti-homophony blocking is not limited to an inflectional paradigm but also occurs in transparadigmatic relations, and it is part of the productive phonological grammar.

TABLE OF CONTENTS

Acknow	vledgement		Page iv
Abstrac	et		vii
Chapte	r 1 Introduction and background		1
1.1	Introduction		1
1.2	Relevant previous research		3
	1.2.1 Anti-homophony blocking		3
			9
	1.2.3 Kawahara (2003)		13
	1.2.4 Itô and Mester (2004b)		16
	1.2.5 Ichimura (2001)		20
	1.2.6 Questions and plans		23
1.3	Method of data collection and ar	nalysis	25
			25
	1.3.2 Analysis		26
			26
1.4	Significance of the study		27
1.5	Outline of the dissertation		28
Chapte	in Japanese		30
2.1			30
2.2	Contracted forms – syncope in a	derived environment	30
2.3	Japanese verb paradigm		37
2.4		omophony blocking	38
	2.4.1 Nasal assimilation		38
	2.4.2 Anti-homophony blocking	of nasal assimilation	46
2.5	Labial contraction and its anti-he	omophony blocking	55
	<u>-</u>	vowels	56
		th palatalization	57
	2.5.3 Anti-homophony blocking	of labial contraction	60
2.6	Gerund /te/ contraction		61
2.7	Summary		64
Chapte	blocking		66
3.1			66
3.2		ng in nasal assimilation	66
3.3		ons in Japanese	73
3.4	Special relation between /r/ and	/n/	79

3.5		Blocking of nasal assimilation and the anti-homophony	
		constraint	95
3.6		Summary	117
Chapte	er 4	Full-form grammar and transparadigmatic homophony creation	119
4.1		Introduction	119
4.1		Full-form grammar	120
4.3		Transparadigmatic homophony creation	120
4.5	4.3.1	Homophony pattern 1: Neutralization without alternation	126
	4.3.2	and "Emergence of the Unmarked"	120
	4.3.2	2 Homophony pattern 2: Neutralization by two-way alternation	129
	4.3.3		136
4.4		Anti-homophony principle: phonology-internal	
		vs. phonology-external	141
4.5		Relativized faithfulness constraint and two grammars	153
4.6		Summary	159
Chapte	er 5	Experiment on productivity of anti-homophony blocking	161
5.1		Introduction	161
5.2		Production experiment involving nasal assimilation	162
	5.2.1	Purpose	162
	5.2.2	Methods	163
	5.2.3	Results and observations	176
5.3		Influence of word frequency and word familiarity on	
		anti-homophony blocking	188
	5.3.1	Word frequency	188
	5.3.2	Word familiarity	195
5.4		Summary	201
Chapte	er 6	Conclusion	202
Append	dix A	Verbal suffix allomorphy in Japanese	207
Append	dix B	/rVnai/ verb patterns and blocking of nasal assimilation	218
Append	dix C	Onbin	226
Bibliog	raph	y	232
Curric	ulum	Vitaa	241

LIST OF TABLES

		Page
Table 1	Homophony blocking in Trigrad Bulgarian	10
Table 2	Suffix allomorphy for V-stems and C-stems	17
Table 3	ALLCORR violations in the Japanese verbal suffixes	19
Table 4	Nasal assimilation and its blocking	54
Table 5	Consonant features in Japanese	81
Table 6	"Contrastiveness" evaluation: /ore-ru/ and /ori-ru/	98
Table 7	"Contrastiveness" evaluation: /kar-inasai/ and /kari-nasai/	99
Table 8	"Contrastiveness" evaluation: /tome-rare-nai/ 'stop, POTEN, NEG' and /tome-rare-nai/ 'stop, PASS, NEG'	106
Table 9	Type A verbs	172
Table 10	Type B verbs	173
Table 11	Type C verbs	174
Table 12	Type D verbs	175
Table 13	Results of the production experiment on nasal assimilation	177
Table 14	Occurrence of nasal assimilation	179
Table 15	Sociolinguistic factors of the nasal assimilation of type A (A-1 and A-2) and C verbs	184
Table 16	Sociolinguistic factors in type A-1 verbs	186
Table 17	Sociolinguistic factors in type A-2 verbs	186
Table 18	Sociolinguistic factors in type C verbs	187
Table 19	Nasal assimilation and word frequency of lexical items	191

Table 20	Nasal assimilation and word familiarity of lexical items	198
Table 21	Controversy of Japanese verbal suffix allomorphy	208
Table 22	/CV.rV.nai/ words and counterparts	221
Table 23	/CV.rV.nai/ words and nasal assimilation	222
Table 24	/CV.CV.rV.nai/ words and counterparts	223
Table 25	/CV.CV.rV.nai/ words and nasal assimilation	224

LIST OF FIGURES

		Page
Figure 1	Occurrence of Nasal Assimilation	180
Figure 2	Nasal Assimilation: Age, Gender and Closeness	185
Figure 3	Nasal assimilation and word frequency in "TV"	193
Figure 4	Nasal assimilation and word frequency in "TV" (without wakar(e), okur(e) and nar(e))	193
Figure 5	Nasal assimilation and word frequency in "NP"	194
Figure 6	Nasal assimilation and word frequency in "NP" (without wakar(e) and nar(e))	195
Figure 7	Nasal assimilation and word familiarity in "Aud"	199
Figure 8	Nasal assimilation and word familiarity in "Vis"	200

LIST OF ABBREVIATIONS

ACC accusative

AUX auxiliary

CAUS causative

CONJ conjunctive

COP copula

DAT dative

DESI desiderative

GEN genitive

GER gerundive

HYP hypothetical

IMP imperative

NEG negative

NEG-IMP negative imperative

NOM nominative

NOMI nominalizer

PASS passive

PAST past

PL plural

POL polite

POL-IMP polite imperative

POL-PRES polite present

POTEN potential

POSS possessive

PRES present

SG singular

TENT tentative

TOP topic

1 first person

2 second person

3 third person