

ESTHER ODILIA BREUER

First Language versus Foreign Language

Fluency, Errors and Revision Processes
in Foreign Language Academic Writing

PETER LANG Internationaler Verlag der Wissenschaften



PETER LANG
EDITION

Esther Odilia Breuer

First Language versus Foreign Language

Fluency, Errors and Revision Processes
in Foreign Language Academic Writing



PETER LANG
EDITION

**Bibliographic Information published by the Deutsche
Nationalbibliothek**

The Deutsche Nationalbibliothek lists this publication in the Deutsche Nationalbibliografie; detailed bibliographic data is available in the internet at <http://dnb.d-nb.de>.

Library of Congress Cataloging-in-Publication Data

Breuer, Esther Odilia, 1971-

First language versus foreign language : fluency, errors and revision processes in foreign language academic writing / Esther Odilia Breuer.

pages cm. – (Textproduktion und Medium; Band 14)

ISBN 978-3-631-64698-4 (Print) – ISBN 978-3-653-04262-7 (E-Book)

1. Academic writing–Cross-cultural studies. 2. Native language and education–Cross-cultural studies. 3. Multilingualism–Cross-cultural studies. I. Title.

P301.5.A27B74 2015

430'.4221–dc23

2014048420

ISSN 1431-0015

ISBN 978-3-631-64698-4 (Print)

E-ISBN 978-3-653-04262-7 (E-Book)

DOI 10.3726/978-3-653-04262-7

© Peter Lang GmbH

Internationaler Verlag der Wissenschaften

Frankfurt am Main 2015

All rights reserved.

Peter Lang Edition is an Imprint of Peter Lang GmbH.

Peter Lang – Frankfurt am Main · Bern · Bruxelles · New York ·
Oxford · Warszawa · Wien

All parts of this publication are protected by copyright. Any utilisation outside the strict limits of the copyright law, without the permission of the publisher, is forbidden and liable to prosecution. This applies in particular to reproductions, translations, microfilming, and storage and processing in electronic retrieval systems.

This publication has been peer reviewed.

www.peterlang.com

First Language versus Foreign Language

TEXTPRODUKTION UND MEDIUM

Herausgegeben von Eva-Maria Jakobs und Dagmar Knorr

Wissenschaftlicher Beirat:

Carmen Heine (Aarhus, Dänemark)

Katrin Lehnen (Gießen, Deutschland)

Karl-Heinz Pogner (Kopenhagen, Dänemark)

Kirsten Schindler (Köln, Deutschland)

Annette Verhein-Jarren (Rapperswil, Schweiz)

BAND 14

*Zu Qualitätssicherung und Peer Review
der vorliegenden Publikation*

Die Qualität der in dieser Reihe erscheinenden Arbeiten wird vor der Publikation durch externe, von der Herausgeberschaft benannte Gutachter im Double Blind Verfahren geprüft. Dabei ist der Autor der Arbeit den Gutachtern während der Prüfung namentlich nicht bekannt; die Gutachter bleiben anonym.

*Notes on the quality assurance and peer
review of this publication*

Prior to publication, the quality of the work published in this series is double blind reviewed by external referees appointed by the editorship. The referees are not aware of the author's name when performing the review; the referees' names are not disclosed.

Acknowledgements

Writing my doctoral thesis was one of the greatest experiences of my life. However, it would have been much less fun if I had not had the support and help of my very patient environment. First of all, I would like to thank Prof. Dr. Klaus Peter Schneider who did a brave job of bringing me back to my topic when I got lost and who encouraged me in moments of doubt. Thanks a lot to Pawel Sickinger, whose programming skills enabled me to analyse the texts both sensibly and comfortably. A big thanks goes to Penelope Allsobrook and to Dr. Johanna Blokker who supported my views on the topic by pointing out when I made use of my first language in foreign language writing myself. Thanks to the academic community of writing who welcomed me into their community and gave me much insight into the field, as well as ideas of how to continue. Another important person in this respect is Prof. Dr. Jon Ericson whose lessons made me turn away from literature and into the wonderful world of linguistics.

I thank my family and friends, many of whom did not see much of me during the PhD-times and who, when they saw me, had to cope with a person who was rather 'one-sided' in terms of topics to talk about.

My biggest thanks goes to Arthur and Markus who had to bear with me every day, had to deal with my bad moods when things did not turn out the way I expected them to, or when I got laughing attacks about node-switches (see chapter 2.5) from me or other people. This must have been really hard on them and at times embarrassing (to quote my son). I am still amazed that they did not move out and am very happy that they did not.

List of Tables

Table 4.1:	Excerpt from Siebenmorgen's FLN error analysis Excel spreadsheet	113
Table 4.2:	Example of revision analysis (Babs FLN)	115
Table 4.3:	Overview of the contents of analysis.....	118
Table 5.1:	Mean number of words in the final essays	124
Table 5.2:	Mean number of characters excluding spaces in the final essays	126
Table 5.3:	Minimum/Maximum number of words/characters per essay	127
Table 5.4:	Average amount of time taken for the tasks.....	132
Table 5.5:	Percentage of available time used by each participant for revision.....	139
Table 5.6:	Proportional distribution of average time spent on execution and pausing	140
Table 5.7:	Number of bursts per task and in the writing subprocesses.....	142
Table 5.8:	Bursts per minute	143
Table 5.9:	Number of words per burst.....	145
Table 5.10:	Words-per-burst rates of individual participants (proper-essay writing).....	148
Table 5.11:	Characters per burst.....	150
Table 5.12:	Characters/burst in planning for each participant.....	152
Table 5.13:	Maximum, minimum and median of burst ends.....	158
Table 5.14:	Percentage of all bursts ending in mid-word.....	158
Table 5.15:	Percentage of mid-word bursts that are r-bursts	158
Table 5.16:	Percentage of all bursts in planning that end in mid-word	159
Table 5.17:	Percentage of mid-word bursts in planning that are r-bursts.....	160
Table 6.1:	Errors and mistakes in the L1 texts (plans and proper essays)....	166
Table 6.2:	L1 errors in <i>miscellaneous</i>	168
Table 6.3:	Percentage of errors in the subcategories of <i>orthographic node-switches</i> in the L1	170
Table 6.4:	Mean number or errors in the FL texts (plans and essays)	172
Table 6.5:	Mean number of errors per participant.....	173
Table 6.6:	Proportion of errors in the different categories.....	176

Table 6.7:	Proportions of <i>punctuation node-switches</i>	185
Table 6.8:	Distribution of <i>semantic node-switches</i>	191
Table 6.9:	Distribution of <i>genre node-switches</i>	192
Table 6.10:	Proportion of <i>code-switches</i>	194
Table 6.11:	Proportion of typing mistakes	196
Table 6.12:	Proportion of errors in <i>content</i>	200
Table 7.1:	Mean number of revisions in the different task conditions	203
Table 7.2:	Mean number of characters without revision	204
Table 7.3:	Mean number of revisions in the different categories	206
Table 7.4:	Mean number of revisions in the subcategories of <i>content</i>	212
Table 7.5:	Mean number of revisions in the subcategories of <i>miscellaneous</i>	216
Table 7.6:	Mean number of double revisions in the different categories	225
Table 7.7:	Mean number of revisions in the plans	228
Table 7.8:	Distribution of revisions in the subcategories of <i>content</i> in planning (%)	234
Table 7.9:	Distribution of revisions in <i>miscellaneous</i> in planning	237
Table 7.10:	Mean number of revisions in the different categories in proper-essay writing	239
Table 7.11:	Mean number of revisions in <i>content</i> in writing the proper essay	242
Table 7.12:	Mean number of revisions in <i>miscellaneous</i> in writing the proper essay	247
Table 7.13:	Mean number of incidents of final revisions in the different categories	251
Table 7.14:	Proportion of revisions after pauses to revisions in total	258
Table 7.15:	Proportion of pausing after revisions to revisions in total	260

List of Figures

Fig. 2.1:	The Parallel Architecture; after Jackendoff (2002/2010: 125/3).....	18
Fig. 2.2:	Francis (2004: 181): The Bilingual Tripartite Parallel Architecture (1)	27
Fig. 2.3:	The Bilingual Tripartite Architecture.....	28
Fig. 2.4:	Syntactic node-switch	44
Fig. 4.1:	<i>Translog</i> user interface	94
Fig. 4.2:	<i>Translog</i> supervisor interface	95
Fig. 5.1:	Number of characters per participant (final essay).....	129
Fig. 5.2:	Words produced vs. words in final essays	130
Fig. 5.3:	Characters produced vs. characters in final essays	131
Fig. 5.4:	Time for the tasks per participant	133
Fig. 5.5:	Mean time spent on the different writing processes (%).....	135
Fig. 5.6:	Time for planning per participant.....	137
Fig. 5.7:	Words per burst per participant in planning.....	147
Fig. 5.8:	Characters per burst per participant (proper-essay writing).....	153
Fig. 5.9:	Ends of bursts in the different tasks	155
Fig. 6.1:	Distribution of errors in the L1 texts	167
Fig. 6.2:	Mean number of errors per word per participant.....	174
Fig. 6.3:	Distribution of errors in the categories	176
Fig. 6.4:	Distribution of errors in <i>orthographic node-switch</i>	180
Fig. 6.5:	Distribution of errors in <i>syntactic node-switch</i>	187
Fig. 6.6:	Distribution of errors in <i>miscellaneous</i>	197
Fig. 7.1:	Mean number of characters without revision.....	205
Fig. 7.2:	Distribution of revisions in the different categories	207
Fig. 7.3:	Distribution of revisions in <i>content</i>	213
Fig. 7.4:	Distribution of revisions in <i>miscellaneous</i>	218
Fig. 7.5:	Distribution of revisions in <i>orthographic node-switch</i>	221
Fig. 7.6:	Mean number of revisions in plan per participant	230
Fig. 7.7:	Distribution of revisions in planning.....	231
Fig. 7.8:	Distribution of revisions in essay writing.....	240
Fig. 7.9:	Distribution of revisions in <i>content</i> in essay writing	243

Fig. 7.10: Distribution of revisions in *miscellaneous* in essay writing 248

Fig. 7.11: Distribution of revisions in final revision 253

Fig. 7.12: Distribution of revisions in *content* in final revisions..... 255

Contents

List of Tables.....	XI
---------------------	----

List of Figures	XIII
-----------------------	------

1 Introduction.....	1
---------------------	---

2 A bilingual version of Jackendoff's Parallel Architecture and its implications for 'node-switching'	17
--	----

2.1 Jackendoff's Tripartite Architecture	17
--	----

2.1.1 The role of the lexicon in Parallel Architecture.....	20
---	----

2.1.2 Simpler syntax	22
----------------------------	----

2.2 The integration of FL into Parallel Architecture	23
--	----

2.2.1 The bilingual lexicon	26
-----------------------------------	----

2.2.2 The <i>Bilingual Tripartite Architecture</i>	28
--	----

2.3 Orthographic structure	31
----------------------------------	----

2.4 Genre	34
-----------------	----

2.4.1 The academic genre	36
--------------------------------	----

2.4.2 Cross-cultural differences in academic writing	37
--	----

2.5 Node-switches	42
-------------------------	----

2.6 Summary	48
-------------------	----

3 Cognitive Aspects of Writing	51
--------------------------------------	----

3.1 Writing components.....	54
-----------------------------	----

3.1.1 Idea generation	54
-----------------------------	----

3.1.2 Planning	57
----------------------	----

3.1.3 Formulation	61
-------------------------	----

3.1.4 Execution	62
-----------------------	----

3.1.5 Revision	62
----------------------	----

3.2 External factors and working memory	64
---	----

3.3 Parallel processing in writing	68
--	----

3.4 The processes in FL writing	72
---------------------------------------	----

3.5 Writing fluency.....	75
--------------------------	----

3.6	Strategies for problem solving.....	79
3.7	Summary	80
4	Methods.....	83
4.1	Study-design	85
4.1.1	Participants	85
4.1.2	Tasks.....	88
4.1.3	Planning strategies.....	90
4.1.4	Questionnaires and interviews.....	92
4.1.5	Evaluation of the final texts	93
4.2	Analysis of productivity and fluency.....	93
4.2.1	Keylogging	94
4.2.2	Foci of analysis	96
4.3	Error categories	98
4.3.1	Subcategories of orthographic node-switches.....	101
4.3.2	Syntactic node-switches	103
4.3.3	Semantic node-switches.....	106
4.3.4	Genre node-switches	108
4.3.5	Miscellaneous	109
4.3.6	Content.....	110
4.4	Error analysis and the analysis of revisions	112
4.4.1	Error Analysis.....	113
4.4.2	Categorization of revisions	114
4.5	Limitations of the study	116
4.6	Summary	118
5	Productivity and fluency	123
5.1	Text lengths of the final essays.....	123
5.1.1	Number of words in the final essays.....	124
5.1.2	Number of characters in the final essays.....	125
5.1.3	Individual results with respect to text lengths.....	127
5.2	Production rates	130
5.3	Time.....	132
5.3.1	Time required to complete the tasks	132
5.3.2	Time distribution among the different writing processes	134
5.3.3	Time for execution and time for pausing	140
5.4	Bursts	141
5.4.1	Numbers of bursts per task.....	142

5.4.2	Words per burst.....	145
5.4.3	Characters per burst	149
5.4.4	Individual results of characters per burst	152
5.5	Ends of bursts	154
5.5.1	P-bursts and r-bursts	154
5.5.2	Bursts ending in mid-word.....	158
5.6	Summary.....	160
6	Error analysis.....	165
6.1	Errors in the L1 essays.....	165
6.1.1	L1 Errors in <i>miscellaneous</i>	168
6.1.2	<i>Orthographic node-switches</i> in the L1 texts.....	169
6.2	Errors in the FL texts.....	171
6.3	Total number of errors per participant	173
6.4	Categorical distribution of the FL errors	175
6.4.1	Phonological node-switches.....	177
6.4.2	Orthographic node-switches.....	179
6.4.3	Punctuation node-switches	184
6.4.4	Syntactic node-switches	186
6.4.5	Semantic node-switches.....	190
6.4.6	Genre node-switches	192
6.4.7	Code-switches	193
6.4.8	Typing mistakes.....	195
6.4.9	Miscellaneous	196
6.4.10	Content.....	200
6.5	Summary.....	201
7	Revisions.....	203
7.1	Number of revisions	203
7.2	Types of revisions.....	206
7.2.1	Revision of <i>content</i>	210
7.2.2	Revisions in <i>miscellaneous</i>	216
7.2.3	Revision in <i>orthographic node-switch</i>	220
7.3	Double revisions.....	224
7.4	Revisions in planning.....	226
7.4.1	Number of revisions in the plans.....	228
7.4.2	Distribution of the revisions in planning	230
7.4.3	Revisions of <i>typing mistakes</i> in planning	232

7.4.4	Revisions of <i>content</i> in planning	233
7.4.5	Revisions in <i>miscellaneous</i> in planning	237
7.5	Revisions in the process of writing the proper essays	238
7.5.1	Revisions of <i>typing mistakes</i> in writing the proper essay	241
7.5.2	Revision of <i>content</i> in writing the proper essay	242
7.5.3	Revision of <i>miscellaneous</i> in writing the proper essay	247
7.6	Revisions in the final revision	250
7.7	Revisions in p-bursts and r-bursts	257
7.8	Summary	261

8	Conclusion	265
8.1	Results	265
8.2	Possibilities for future research	275

Bibliography	281
---------------------------	-----

Appendix	327
A – Abbreviations	327
B – Overview of participants	328
C – Introductory questionnaire	330
Questionnaire 1:	330
D – Tasks	334
Task 1: Simple essay	334
Task 2: FLN	334
Task 3: LIN	335
Task 4: L1F	336
Task 5: FLF	336
E – Questionnaires on the essays	337

1 Introduction

The time to begin writing an article is when you have finished it to your satisfaction. By that time you begin to clearly and logically perceive what it is you really want to say. (Mark Twain [1902] 1935: 380)

In the academic community, writing has always enjoyed pride of place as the most important of all forms of communication (Russell 2002: 4, Swales 2004: 2). The written exchange of information, the publication of the results of academic and scientific work, and the communication of ideas across cultures have been fundamental to the generation and development of knowledge in science and in the academia. Internet, e-mail and other electronic channels, as well as better and cheaper travel opportunities, have simplified cross-cultural communication and international cooperation. As a result, we are experiencing an explosive growth in publishing opportunities in the form of printed and electronic international journals and websites, as well as an increase in the number of virtual and 'real' academic communities (Rijlaarsdam *et al.* 2012: 191).

To include as many participants as possible in this communication process, it has always been vital to find a common language for the exchange of information. For many centuries this language was Latin; then for a time it was German (Kretzenbacher, 2001: 447). As English is nowadays the language that is taught in most countries in the world as the first foreign language and is often the language of the media, it has become the language that offers the highest convergence as a *lingua franca* (Crystal 2003: 4, Dewey and Jenkins 2010: 333, Swales 2004: 43): Most international conferences are held in English even when they do not take place in an English-speaking country and when the topic has nothing to do with English, for example the conferences of the *Deutsche Gesellschaft für Sprachwissenschaft* (German Association for Linguistics) in Germany. It is the language in which most academic communities communicate in their e-mail lists and forums. The same is true for academic journals with an international distribution, regardless of the fact that neither the writers nor the readers are first language English speakers (Jenkins 2011: 932, Yakhontova 2002: 216). *Ulrich's Periodicals Directory 2010*, for example, shows that 67% of academic periodicals are published wholly or partly in English (Lillis and Curry 2010: 19). It is also the case that many universities in non-English-speaking countries offer a significant number of classes in English (Genç and Bada 2010: 143).

One can therefore say that it is no longer enough to master one's chosen topic or field in order to become a successful academic or scientist: one must also be able to speak and write in English at a high level (Armstrong 2011: 153, Crystal 2003: 93). This, in turn, means that the majority of the participants in the academic community (but also in the economy or in politics) cannot participate in their professional world in their first language (L1) but need to do so in a foreign language (FL).

The result being that writing can become fastidious for FL academic writers. They must be able to formulate their thoughts in a language which they do not have the same command of as they do in their first language. They need to apply a different orthographic system (Grabowski 1996: 74, Pike 1947: 57 ff., Rijlaarsdam *et al.* 2005: 129), as well as different demands on the target genre (Belcher 2014, Grabe and Kaplan 1996). Since the context expects not only content but also language and genre to be on a superior and target-group related level (Swales 2004) the cognitive demands on the writers can become so great that they feel as if they have literally been asked to enter a ring in which they must fight down their first language, while trying to beat their complex messages across to the other. FL writers need to find ways of dealing with these demands and it is probable that their text generation and final texts will not meet the ideal processing and results in many aspects, as would their L1 writing and L1 texts do.

For linguists, however, the disadvantage of the high cognitive demands for the FL writers, their struggles, and their weaker texts have one distinct advantage, as the complexity and difficulty of the task may offer a view on the 'battle' that takes place in the writers' minds. It can potentially open a window into the underlying processes in FL writing and into the relationships between these processes which in turn can help finding ways in which FL writers could train their text production and enhance their final texts, and thus could win the battle of *L1 versus FL*. As Muhammad Ali said: "Only a man who knows what it is like to be defeated can reach down to the bottom of his soul and come up with the extra ounce of power it takes to win when the match is even."

In this book, *fluency*, *errors* and *revising processes* in L1, as compared to FL writing will be the three key elements of analysis. Each of these aspects throws light on the methods and strategies in dealing with the challenges and cognitive demands that academic writers face, and in particular those who attempt writing in a foreign language (Manchón and de Haan 2008: 3). These consciously or subconsciously applied strategies of FL writers for coping with the cognitive

demands of their writing tasks may in turn have a negative impact on other factors in the writing process and thus on the final text. The use of the L1 during FL writing (for example Poulisee and Bongaerts 1994, Wolfersberger 2003: 1) can affect the linguistic and the genre appropriateness as well as the target group appropriateness of the texts.

Strategies which have been found in FL writing are, for example, using the L1 in FL writing to help ease the process of text production (Ortega 2009: 42/43, Ortega and Carson 2010: 55, Wang and Wen 2002: 226, Woodall 2002: 23/24) or transferring L1 rhetoric on FL writing (Breuer, 2014, Hirose 2003: 204, Kim 1996: 115, Kubota 1998: 88). In addition, writers can reorganise their writing processes in order to cope with the extra demands on their cognitive capacities: they can slow down these processes; they can for instance relocate their focus at different points in the process (Alamargot *et al.* 2007: 15, Just and Carpenter 1992: 136); or they can use other strategies (Norton-Meier *et al.* 2009: 184, Ortega 2009: 145, van Wijk and Sanders 1999: 59; Chapter 3.5).

Concerning fluency, different studies (for example van Weijen 2008: Chapter 3) have shown that the writing processes are slower in the FL than in the L1 and that the processing also differs. In their L1, writers are better able to produce longer stretches or “bursts” of writing without interruptions in order to pause or revise. In FL writing, writers usually pause more often and for longer periods of time, as less parallel processing can take place. These elements are of importance because fluency can be an indicator of the quality that can be expected of the paper as a whole (Galbraith 2009: 16).

Different studies have found that fluency is an important aspect for generating thoughts and new ideas (Breuer 2013, Galbraith 1999). One of the most important benefits of fluent writing is that the text itself, as it develops under the writers’ hands, offers a platform on which they can ‘communicate’ with their own thoughts, enabling them to generate new knowledge from the knowledge already written down (Galbraith 1999: 142/143, Menary 2007: 622). Fluent writing can thus function as a form of thinking, enhancing writers’ knowledge and mental structures (Galbraith 2009: 18). It can help writers to find their own position – their ‘personal voice’ (Elbow 2007) – through a kind of a discussion they enter into with their own texts. The reduction of fluency may thus have very negative effects on the text production process and, along with this, on the quality of the written product.

All of these studies show the vast possibilities that writing analysis offers linguists. To date, however,