

#### Language Dominance in Bilinguals

With contributions from leading scholars of bilingualism, *Language Dominance in Bilinguals* is the first publication to survey different approaches to language dominance, along with suggested avenues for further research. It illustrates how a critical approach to the notion of language dominance, as well as its operationalization and measurement, can provide new insights into this burgeoning area of research.

Drawing on adult and child data from a variety of language pairs, the chapters discuss how language dominance is to be conceptualized and distinguished from such related constructs as language proficiency and language competence. This volume is the first of its kind to present an overview of different approaches to language dominance from across the theoretical spectrum, as well as suggested avenues for further research.

Accessibly written, *Language Dominance in Bilinguals* is a valuable new addition to the field. Essential reading for students and scholars working in bilingualism, speech therapy and education.

CARMEN SILVA-CORVALÁN is Professor Emerita of Spanish and Portuguese at the University of Southern California.

JEANINE TREFFERS-DALLER is Professor of Second Language Education, Institute of Education, University of Reading, UK.





# Language Dominance in Bilinguals

Issues of Measurement and Operationalization

Edited by Carmen Silva-Corvalán and Jeanine Treffers-Daller





# **CAMBRIDGE**UNIVERSITY PRESS

University Printing House, Cambridge CB2 8BS, United Kingdom

Cambridge University Press is part of the University of Cambridge.

It furthers the University's mission by disseminating knowledge in the pursuit of education, learning and research at the highest international levels of excellence.

www.cambridge.org

Information on this title: www.cambridge.org/9781107044494

© Cambridge University Press 2016

This publication is in copyright. Subject to statutory exception and to the provisions of relevant collective licensing agreements, no reproduction of any part may take place without the written permission of Cambridge University Press.

First published 2016

A catalogue record for this publication is available from the British Library

Library of Congress Cataloguing in Publication data
Language dominance in bilinguals: issues of measurement and
operationalization / edited by Carmen Silva-Corvalán, Jeanine Treffers-Daller.
pages cm

Includes bibliographical references and index.

ISBN 978-1-107-04449-4 (hardback)

Language and languages-Ability testing.
 Bilingualism-Ability testing.
 Education, Bilingual-United States.
 Treffers-Daller, Jeanine, 1959-editor.
 Silva-Corvalán, Carmen, editor.
 P53.L355
 2015

404.2-dc23 2015023043

ISBN 978-1-107-04449-4 Hardback

Cambridge University Press has no responsibility for the persistence or accuracy of URLs for external or third-party internet websites referred to in this publication, and does not guarantee that any content on such websites is, or will remain, accurate or appropriate.



## Contents

	List of figures	page vii
	List of tables	ix
	List of editors and contributors	xi
1	Digging into dominance: A closer look at language dominance in bilinguals  CARMEN SILVA-CORVALÁN AND  JEANINE TREFFERS-DALLER	1
2	Dominance and proficiency in early and late bilingualism SILVINA MONTRUL	15
3	Related but different: The two concepts of language dominance and language proficiency ANIKA SCHMEIßER, MALIN HAGER, LAIA ARNAUS GIL, VERONIKA JANSEN, JASMIN GEVELER, NADINE EICHLER MARISA PATUTO, AND NATASCHA MÜLLER	36
4	The Complementarity Principle and its impact on processing, acquisition, and dominance FRANÇOIS GROSJEAN	66
5	Dominance in bilingualism: Foundations of measurement, with insights from the study of handedness DAVID BIRDSONG	85
6	Using lexical diversity measures to operationalize language dominance in bilinguals  JEANINE TREFFERS-DALLER AND TOMASZ KORYBSKI	106
7	Balance patterns in early bilingual acquisition: A longitudinal study of word comprehension and production ANNICK DE HOUWER AND MARC H. BORNSTEIN	134

V



vi	Contents	
8	Amount of exposure as a proxy for dominance in bilingual language acquisition SHARON UNSWORTH	156
9	The role of the childhood environment for language dominance: A study of adult simultaneous bilingual speakers of German and French TANJA KUPISCH AND JOOST VAN DE WEIJER	174
10	Assessing the relationship between input and strength of language development: A study on Italian–English bilingual children FRANCESCA LA MORGIA	195
11	Measuring language dominance in bilingual children: Implications for crosslinguistic influence ELENA NICOLADIS	219
12	Language dominance: The construct, its measurement, and operationalization  JEANINE TREFFERS-DALLER	235
13	Conclusion JEANINE TREFFERS-DALLER	266
	References Index	269 297



# Figures

2.1	Relationship between dominance and proficiency	page 17
2.2	Two types of adult bilinguals with same dominance pattern	
	but different proficiency in one of the languages	27
3.1	MLU and MLUD development in the German–Spanish	
	bilingual child Lucas	49
3.2	MLU and MLUD development in the German–Spanish	
	bilingual child Teresa	50
3.3	MMLUD of 22 children who were analyzed longitudinally	
	(adapted from Hager, 2014)	51
3.4	Developmental perspective on language balance in the	
	German–Italian bilingual child Aurelio (MLUD)	52
3.5	Developmental perspective on language balance in the	
	German–Italian bilingual child Luca-Daniele (MLUD)	53
3.6	Target-like and target-deviant orders in French and	
	German: comparing monolingual and bilingual children	
	(adapted from J. Müller, 2009: 70ff.)	55
3.7	Target-deviant clause-final position of finite verbs in German	
	main clauses in six German–Italian children from age 1;6 to	
	3;6 (adapted from Repetto & Müller, 2010: 177)	56
3.8	Target-deviant copula use in Spanish (adapted from Arnaus	
	Gil, 2013)	58
3.9	Language proficiency in Spanish measured in MLU in five	
	German–Spanish children	59
3.10	Language proficiency in German measured in MLU in five	
	German–Spanish children	59
3.11	MLU development in German of the German–French child	
	Céline and the German–Italian bilingual children Lukas,	
	Marta, Carlotta	60
3.12	Language balance in the 24 bilingual children of the	
	longitudinal study according to their country of residence	62
3.13	Language balance in the bilingual children and (non-)	
	community language	62

vii



viii List of figures

3.14 Dominant and ba
raised according

3.14	Dominant and balanced children of the cross-sectional study	
	raised according to OPOL and according to other methods	63
4.1	An illustration of the Complementarity Principle. The domains	
	covered by languages a, b, and c are represented by the	
	quadrilaterals	69
5.1	Four hypothetical examples of median splits, with symmetrical	
	distributions on either side of the median	94
6.1	Frequency of usage of English, Polish, and other languages at	
	home and at work (self-report, $n = 26$ )	115
6.2	Indices of Language Dominance (z-scores) ( $n = 22$ )	124
6.3	Number of balanced bilinguals, English-dominant, and	
	Polish-dominant bilinguals according to the four Indices of	
	Language Dominance ( $n = 22$ )	125
6.4	Correlations between length of residence and the ILD4	127
6.5	Correlations between ILD1 and EngAtt	128
8.1	Relation between children's MLU <sub>diff</sub> scores, dominance groups,	
	and current amount (%) of exposure to Dutch	166
8.2	Relation between children's MLU <sub>diff</sub> scores, dominance groups,	
	and child's average output at home in Dutch (%)	167
8.3	Relation between children's VERBS <sub>diff</sub> scores, dominance	
	groups, and current amount (%) of exposure to Dutch	168
8.4	Relation between children's VERBS <sub>diff</sub> scores, dominance	
	groups, and child's average output at home in Dutch (%)	169
12.1	Typology of language dominance based on language proficiency	261



## **Tables**

2.1	Profile of low-to-intermediate proficiency Spanish heritage	
	speakers and L2 learners of Spanish in the United States	page 26
2.2	Input differences between heritage speakers and L2 learners	28
3.1	Overview of the longitudinal data analyzed in this study	47
3.2	Overview of the bilingual children in the cross-sectional study	48
3.3	Categorization of bilingual individuals according to MMLUD	
	(adapted from Arencibia Guerra, 2008: 70)	51
3.4	Categorization of bilingual individuals according to MMLUD	
	(adapted from Hager, 2014)	52
4.1	The distribution of languages according to topics for Bilingual	
	14 in Gasser's study and the importance of each language	
	expressed as a percentage	71
4.2	The distribution of languages according to activities for	
	Bilingual 14 in Gasser's study and the importance of each	
	language expressed as a percentage	73
4.3	The distribution of languages according to topics for Bilingual	
	8 in Jaccard and Cividin's study and the importance of each	
	language expressed as a percentage	74
5.1	Comparison of dominance indices showing an increase in	
	magnitude of simple ratio-derived indices as raw scores increase	
	and as subtraction-derived indices remain constant	89
5.2	Comparison of dominance indices showing the stability of	
	simple ratio-derived indices reflecting the constant percentage	
	of LB scores with respect to LA scores	89
5.3	Comparison of dominance indices showing that as	
	subtraction-derived indices increase, simple ratio-derived	
	indices decrease	90
6.1	Mean length of the stories in English and Polish (lemmatized	
	types and tokens)	121
	Correlations between different Indices of Language Dominance	126
6.3	Correlations between Indices of Language Dominance and other	
	variables	127
		ix



K	List of tables	
7.1	Sample demographic characteristics ( $n = 31$ bilingual families)	137
7.2	Comprehension and production scores	140
7.3	Balance patterns across time for 13- and 20-month production	144
7.4	Balance patterns compared contemporaneously for 13-month	
	comprehension and production	145
7.5	Balance patterns across time for 13- month comprehension and	
	20-month production	145
8.1	Language experience variables	163
8.2	Language proficiency variables (absolute and relative scores)	164
9.1	Participants	183
9.2	Proficiency scores, comparing all tests and the two groups	188
10.1	Definite and indefinite articles in Italian	199
10.2	Percentage and number of articles produced in obligatory contexts	206
10.3	Percentage and number of verbs used with the correct inflection	208
10.4	Percentage and number of pragmatically correct use of subjects	209
10.5	Mean percentages achieved at stage 3 and age of the children	210
10.6	Input provided by the mothers in 10-minute interactions	211
12.1	Examples of the operationalization of balance and dominance	
	in bilinguals	256



#### Editors and contributors

#### **Editors**

CARMEN SILVA-CORVALÁN, PhD, Professor Emerita of Spanish and Portuguese, Department of Spanish and Portuguese, University of Southern California, USA. Her publications include Language Variation and Change: Spanish in Los Angeles (1994), Sociolingüística y Pragmática del Español (2001), Bilingual Language Acquisition: Spanish and English in the first six years (2014), and articles in journals such as Language and Bilingualism: Language and Cognition.

JEANINE TREFFERS-DALLER, PhD, Professor of Second Language Education, Institute of Education, University of Reading, UK. Her publications include *Mixing Two Languages: French–Dutch Contact in a Comparative Perspective* (1994). She is a member of the Editorial Board of the *International Journal of Bilingualism* and of *Bilingualism: Language and Cognition*, and has published many articles in these and other journals about code-switching, transfer, and language dominance in bilinguals.

#### **Contributors**

LAIA ARNAUS GIL, PhD, Visiting Professor, Department of Romance Linguistics, Bergische Universität Wuppertal, Germany. She specializes in early language acquisition. Her publications include a recent monography on the early acquisition of copula and auxiliary systems in Romance and German by monolingual and multilingual children, and articles in journals such as *Studia Linguistica*.

DAVID BIRDSONG, PhD, Professor of French Linguistics and current chair of the Department of French and Italian, University of Texas at Austin, USA. He has published in such journals as Language, Journal of Memory & Language, Language Learning, and Studies in Second Language Acquisition.

хi



#### xii List of editors and contributors

- MARC H. BORNSTEIN, PhD, Senior Investigator and Head of Child and Family Research, the *Eunice Kennedy Shriver* National Institute of Child Health and Human Development, USA. Bornstein has published in experimental, methodological, comparative, developmental, and cultural science as well as neuroscience, pediatrics, and aesthetics.
- ANNICK DE HOUWER, PhD, Professor of Language Acquisition and Multilingualism, Department of Linguistics, University of Erfurt, Germany. She has published widely on monolingual and bilingual acquisition, and is the author of the first textbook dedicated to how children acquire two languages from birth (*Bilingual First Language Acquisition*, 2009).
- NADINE EICHLER, PhD, independent scholar, formerly of the Department of Romance Linguistics, Bergische Universität Wuppertal, Germany. She obtained her PhD in Linguistics in 2011 from the same university. Her main areas of interest are syntax, morphology, simultaneous bilingual first language acquisition, and psycholinguistics.
- JASMIN GEVELER, MA, Research Assistant, Department of Romance Linguistics, Bergische Universität Wuppertal, Germany. Her research focuses on the monolingual and multilingual acquisition of syntactic structures. Her PhD thesis focuses on *wh*-questions in Romance monolingual and bilingual language acquisition.
- FRANÇOIS GROSJEAN, PhD, Professor Emeritus of Psycholinguistics, and former Director of the Language and Speech Processing Laboratory, Neuchâtel University, Switzerland. His publications include nine books, among which are: Life with Two Languages: An Introduction to Bilingualism (1982), Studying Bilinguals (2008), Bilingual: Life and Reality (2010), and The Psycholinguistics of Bilingualism (with Ping Li; 2013). He is a Founding Editor of the journal Bilingualism: Language and Cognition.
- MALIN HAGER, MA, independent scholar, formerly of the Department of Romance Linguistics, Bergische Universität Wuppertal, Germany. She is working on bilingual and trilingual language acquisition with a special focus on gender acquisition and language dominance.
- VERONIKA JANSEN, MA, independent scholar, formerly of the Department of Romance Linguistics, Bergische Universität Wuppertal, Germany. Her PhD dissertation focuses on the acquisition of dislocations in French and German by monolingual and bilingual children.
- TOMASZ KORYBSKI, PhD, Lecturer, Institute of Applied Linguistics, University of Warsaw and Division of Applied Linguistics, Marie Curie-Skłodowska University in Lublin, Poland. His research interests include code-switching



List of editors and contributors

xiii

(particularly in Polish communities in the United Kingdom and other English-speaking countries), as well as simultaneous interpretation.

- TANJA KUPISCH, PhD, Professor of Romance Linguistics, Department of General Linguistics, University of Konstanz, Germany. Her work focuses on language acquisition, including child and adult bilingualism, adult second language acquisition, and L3 acquisition. She has published in such journals as *Bilingualism: Language and Cognition* and *Linguistic Aspects of Bilingualism.*
- FRANCESCA LA MORGIA, PhD, Lecturer in Clinical Speech and Language Studies, Trinity College, Dublin. Her main research interests are monolingual and bilingual child language development, the acquisition of syntax, language processing at interfaces, heritage language description, and Italian linguistics.
- SILVINA MONTRUL, PhD, Professor of Spanish and Linguistics, University of Illinois at Urbana-Champaign, USA. She is co-editor of *Second Language Research* and author of *The Acquisition of Spanish* (2004), *Incomplete Acquisition in Bilingualism* (2008), *El bilingüismo en el mundo hispanohablante* (2013), and *The Acquisition of Heritage Languages* (2015).
- NATASCHA MÜLLER, PhD, University Professor, Department of Romance Linguistics, Bergische Universität Wuppertal, Germany. Her research focuses on the syntax and morphology of Romance languages and their acquisition by monolingual and multilingual children, and by second language learners. In her research, she combines experimental and theoretical approaches.
- ELENA NICOLADIS, PhD, Professor of Psychology, Department of Psychology, University of Alberta, Canada. Her research interests include bilingual first language acquisition and development, lexical and morphological acquisition and development, language and thought, gestures, and the impact of culture on language acquisition and development.
- MARISA PATUTO, PhD, independent scholar, formerly of the Department of Romance Linguistics, Bergische Universität Wuppertal, Germany. She obtained her PhD from this university in 2012. Her research interests are in the fields of pragmatics and syntax in early bilingual language acquisition.
- ANIKA SCHMEISSER, MA, Research Assistant, Department of Romance Linguistics, Bergische Universität Wuppertal, Germany. Her research focuses on the syntactic and discourse-pragmatic developments of Romance languages. In particular, she has been investigating the historical development of finite verb placement, the acquisition of tense by young children, and child bilingualism.



xiv List of editors and contributors

SHARON UNSWORTH, PhD, Associate Professor, Department of English Language and Culture and the Department of Linguistics, Radboud University Nijmegen, the Netherlands. Her research interests include child bilingualism and second language acquisition, both in naturalistic and instructed contexts. She is Associate Editor of *Linguistic Approaches to Bilingualism*.

JOOST VAN DE WEIJER, PhD, Researcher, Center of Languages and Literature, and Laboratory of the Humanities, both at Lund University, Sweden. He teaches courses in psycholinguistics and statistical analysis, and provides methodological support for research projects within various areas of linguistics. He is co-author of *Eye Tracking: A Comprehensive Guide to Methods and Measures* (2011).