



The Psychology of **LEARNING AND MOTIVATION**

Volume 72

Adult and
Second Language Learning

Editors

RA D. FEDERMEIER
-WEN HUANG



Contents

<i>Contributors</i>	<i>ix</i>
1. Immersion into virtual reality for language learning	1
Yu-Ju Lan	
1. Introduction	2
2. Empirical examples of VR application in language education	6
3. Conclusion	22
Acknowledgments	23
References	24
2. Language experiences and cognitive control: A dynamic perspective	27
Ping Li and Yanping Dong	
1. Introduction	28
2. Cognitive control	30
3. Ecosystem of language experience	33
4. Expertise of the language learner or user	40
5. Instruments assessing bilingual experience	42
6. Conclusion: A dynamic view	45
Acknowledgments	46
References	47
Further reading	52
3. Studying bilingual learners and users of spoken and signed languages: A neuro-cognitive approach	53
Katherine J. Midgley, Yazmin E. Medina, and Brittany Lee	
1. Introduction	54
2. Electrophysiological brain activity addresses the WHEN question	55
3. Our technique: Event-related potentials or ERPs	56
4. The N400 component	59
5. Studying second language learning: Spoken languages	60
6. Studying signed languages and second language learning	63
7. Studying co-activation in the bilingual lexicon	67
8. Concluding remarks	72
References	73

4. Event-related brain potentials in multilingual language processing: The N's and P's	75
Brennan R. Payne, Shukhan Ng, Kailen Shantz, and Kara D. Federmeier	
1. Introduction	76
2. Major ERP components in language processing and bilingualism	82
3. General conclusion	107
References	108
5. Neural hemispheric organization in successful adult language learning: Is left always right?	119
Zhenghan Qi and Jennifer Legault	
1. Introduction	120
2. Neural predictors of adult language learning success	129
3. Neural plasticity in successful language learning	138
4. Discussion	150
References	155
6. Foreign language learning motivation: Phonetic chill or Latin lover effect? Does sound structure or social stereotyping drive FLL?	165
Susanne M. Reiterer, Vita Kogan, Annemarie Seither-Preisler, and Gašper Pesek	
1. Foreign language learning (FLL) and phonesthetics	166
2. Inherent value vs imposed norm hypothesis	171
3. Approaches to assessing language preferences	173
4. Results	179
5. Esthetic-affective factors driving FLL	189
Conflict of interest	199
References	199
Further reading	205
7. Lexical processing in child and adult classroom second language learners: Uniqueness and similarities, and implications for cognitive models	207
Janet G. van Hell	
1. Theoretical models of the bilingual mental lexicon	209
2. Developmental differences between children and adults that potentially impact L2 learning	211

3. Central research questions on lexical processing in child and adult L2 learners: Language (non)selective lexical access and formation of L2 word-to-concept mappings	213
4. Lexical processing in child and adult classroom second language learners: Uniqueness and similarities? Final remarks	226
Acknowledgments	229
References	229
8. The dynamics of language experience and how it affects language and cognition	235
Zofia Wodniecka, Alba Casado, Patrycja Kałamała, Marta Marecka, Kalinka Timmer, and Agata Wolna	
1. How does language experience matter for the mind and why should we care?	236
2. Impact of prior language exposure on native language retrieval	237
3. Impact of prior language use on cognitive control	250
4. Summary, speculations and outstanding questions	264
Appendix	266
Acknowledgments	276
References	276
9. The contribution of statistical learning to language and literacy acquisition	283
Denise H. Wu and Talat Bulut	
1. Language competence	284
2. Theoretical perspectives on language acquisition	285
3. Literacy acquisition	290
4. Statistical learning	298
5. Concluding remarks	308
References	310