

# I Overview

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# 1 The Scope of Inquiry and Goals of SLA

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## 1 The Scope of Inquiry

The scope of second language acquisition (SLA) is broad. It encompasses basic and applied work on the acquisition and loss of second (third, etc.) languages and dialects by children and adults, learning naturalistically and/or with the aid of formal instruction, as individuals or in groups, in foreign, second language, and lingua franca settings (see, e.g., R. Ellis, 1994; Gass and Selinker, 2001; Gregg, 1994; Jordens and Lalleman, 1988; W. Klein, 1986; Larsen-Freeman, 1991; Larsen-Freeman and Long, 1991; Ritchie and Bhatia, 1996; Towell and Hawkins, 1994). Research methods employed run the gamut from naturalistic observation in field settings, through descriptive and quasi-experimental studies of language learning in classrooms or via distance education, to experimental laboratory work and computer simulations.

Researchers enter SLA with graduate training in a variety of fields, including linguistics, applied linguistics, psychology, communication, foreign language education, educational psychology, and anthropology, as well as, increasingly, in SLA *per se*, and bring with them a wide range of theoretical and methodological allegiances. The 1980s and 1990s witnessed a steady increase in sophistication in the choice of data-collection procedures and analyses employed, some of them original to SLA researchers (see, e.g., Birdsong, 1989; Chaudron, this volume; Doughty and Long, 2000; Faerch and Kasper, 1987; Sorace, 1996; Tarone, Gass, and Cohen, 1994), and also in the ways SLA is measured (Bachman and Cohen, 1998; Norris and Ortega, this volume). However, longitudinal studies of children (e.g., Huebner, 1983a, 1983b; F. Klein, 1981; Sato, 1990; Watson-Gegeo, 1992) and adults (e.g., Iwashita, 2001; Liceras, Maxwell, Laguardia, Fernandez, Fernandez, and Diaz, 1997; Schmidt, 1983) are distressingly rare; the vast majority of SLA studies are cross-sectional, with serious resulting limitations on the conclusions that can be drawn on some important issues. Theory proliferation remains a weakness, too, but the experience of

more mature disciplines in overcoming this and related teething problems is gradually being brought to bear (see, e.g., Beretta, 1991; Beretta and Crookes, 1993; Crookes, 1992; Gregg, 1993, 1996, 2000, this volume; Gregg, Long, Jordan, and Beretta, 1997; Jordan, 2002; Long, 1990a, 1993, forthcoming a).<sup>1</sup>

As reflected in the contributions to this volume (see also Robinson, 2001), much current SLA research and theorizing shares a strongly cognitive orientation, while varying from nativist, both special (linguistic) and general, to various kinds of functional, emergentist, and connectionist positions. The focus is firmly on identifying the nature and sources of the underlying L2 knowledge system, and on explaining developmental success and failure. Performance data are inevitably the researchers' mainstay, but understanding underlying competence, not the external verbal behavior that depends on that competence, is the ultimate goal. Researchers recognize that SLA takes place in a social context, of course, and accept that it can be influenced by that context, both micro and macro. However, they also recognize that language learning, like any other learning, is ultimately a matter of change in an individual's internal mental state. As such, research on SLA is increasingly viewed as a branch of cognitive science.

## 2 The Goals: Why Study SLA?

Second language acquisition – naturalistic, instructed, or both – has long been a common activity for a majority of the human species and is becoming ever more vital as second languages themselves increase in importance. In many parts of the world, monolingualism, not bilingualism or multilingualism, is the marked case. The 300–400 million people whose native language is English, for example, are greatly outnumbered by the 1–2 billion people for whom it is an official second language. Countless children grow up in societies where they are exposed to one language in the home, sometimes two, another when they travel to a nearby town to attend primary or secondary school, and a third or fourth if they move to a larger city or another province for tertiary education or for work.

Where literacy training or even education altogether is simply unavailable in a group's native language, or where there are just too many languages to make it economically viable to offer either in all of them, as is the case in Papua New Guinea and elsewhere in the Pacific (Siegel, 1996, 1997, 1999, this volume), some federal and state governments and departments of education mandate use of a regional lingua franca or of an official national language as the medium of instruction. Such situations are sometimes recognized in state constitutions, and occasionally even in an official federal language policy, as in Australia (Lo Bianco, 1987); all mean that SLA is required of students, and often of their teachers, as well.

Elsewhere, a local *variety* of a language may be actively suppressed or stigmatized, sometimes even by people who speak it natively themselves, resulting

in a need for widespread second *dialect* acquisition (SDA) for educational, employment, and other purposes. Examples include Hawai'i Creole English (Reynolds, 1999; Sato, 1985, 1989; Wong, 1999), Aboriginal English in Australia (Eades, 1992; Haig, 2001; Malcolm, 1994), and African-American Vernacular English in the USA (Long, 1999; Morgan, 1999; Rickford, 2000). In such cases, a supposedly "standard" variety may be prescribed in educational settings, despite the difficulty of defining a *spoken* standard objectively, and despite the notorious track record of attempts to legislate language change. The prescribed varieties are second languages or dialects for the students, and as in part of the Solomon Islands (Watson-Gegeo, 1992; Watson-Gegeo and Nielsen, this volume), once again, sometimes for their teachers, too, with a predictably negative effect on educational achievement. In a more positive development, while language death throughout the world continues at an alarming pace, increasing numbers of children in some countries attend various kinds of additive bilingual, additive bidialectal, or immersion programs designed to promote first language maintenance, SLA, or cultural revitalization (see, e.g., Fishman, 2001; Huebner and Davis, 1999; Philipson, 2000; Sato, 1989; Warner, 2001).

SLA and SDA are not just common experiences for the world's children, of course. More and more adults are becoming second language or second dialect learners voluntarily for the purposes of international travel, higher education, and marriage. For increasing numbers of others, the experience is thrust upon them. Involuntary SLA may take the fairly harmless form of satisfying a school or university foreign language requirement, but regrettably often it has more sinister causes. Each year, tens of millions of people are obliged to learn a second language or another variety of their own language because they are members of an oppressed ethnolinguistic minority, because forced to migrate across linguistic borders in a desperate search for work, or worse, due to war, drought, famine, religious persecution, or ethnic cleansing. Whatever they are seeking or fleeing, almost all refugees and migrants need to reach at least a basic threshold proficiency level in a second language simply to survive in their new environment. Most require far more than that, however, if they wish to succeed in their new environment or to become members of the new culture. States and citizens, scholars and laypersons alike recognize that learning a society's language is a key part of both acculturation and socialization. Finally, less visibly, economic globalization and progressively more insidious cultural homogenization affect most people, knowingly or not, and each is transmitted through national languages within countries and through just a few languages, especially English at present, at the international level.

Any experience that touches so many people is worthy of serious study, especially when success or failure can so fundamentally affect life chances. However, the obvious *social* importance of second language acquisition (SLA) is by no means the only reason for researchers' interest, and for many, not the primary reason or not a reason at all. As a widespread, highly complex, uniquely human, cognitive process, language learning of all kinds merits careful study for *what it can reveal about the nature of the human mind and intelligence*. Thus, a

good deal of what might be termed “basic research” goes on in SLA without regard for its potential applications or social utility.

In linguistics and psychology, for example, data on SLA are potentially useful for testing theories as different from one another as grammatical nativism (see, e.g., Eubank, 1991; Gregg, 1989; Liceras, 1986; Pankhurst, Sharwood-Smith, and Van Buren, 1988; Schwartz, 1992; White, 1989; and chapters by Gregg, Sorace, and White, this volume), general nativism (see, e.g., Eckman, 1996a; O’Grady, 2001a, 2001b, this volume; Wolfe-Quintero, 1996), various types of functionalism (see, e.g., Andersen, 1984; Eckman, 1996b; Mitchell and Miles, 1998, pp. 100–20; Rutherford, 1984; Sato, 1988, 1990; Tomlin, 1990), and emergentism and connectionism (see, e.g., Ellis, this volume; Gasser, 1990; MacWhinney, 2001). Research on basic processes in SLA draws upon and contributes to work on such core topics in cognitive psychology and linguistics as implicit and explicit learning (e.g., DeKeyser, this volume; N. Ellis, 1993, 1994; Robinson, 1997), incidental and intentional learning (e.g., Hulstijn, 2001, this volume; Robinson, 1996), automaticity (e.g., DeKeyser, 2001; Segalowitz, this volume), attention and memory (e.g., N. Ellis, 2001; Robinson, this volume; Schmidt, 1995; Tomlin and Villa, 1994), individual differences (e.g., Segalowitz, 1997; Dörnyei and Skehan, this volume), variation (e.g., Bayley and Preston, 1996; R. Ellis, 1999; Johnston, 1999; Preston, 1989, 1996; Romaine, this volume; Tarone, 1988; Williams, 1988; Young, 1990; Zobl, 1984), language processing (e.g., Clahsen, 1987; Doughty, this volume; Harrington, 2001; Pienemann, 1998, this volume), and the linguistic environment for language learning (e.g., Doughty, 2000; Gass, this volume; Hatch, 1978; Long, 1996; Pica, 1992), as well as at least two putative psychological processes claimed to distinguish first from second language acquisition, that is, cross-linguistic influence (see, e.g., Andersen, 1983a; Gass, 1996; Gass and Selinker, 1983; Jordens, 1994; Kasper, 1992; Kellerman, 1984; Kellerman and Sharwood-Smith, 1986; Odlin, 1989, this volume; Ringbom, 1987; Selinker, 1969) and fossilization (see, e.g., Kellerman, 1989; Long, this volume; Selinker, 1972; Selinker and Lakshmanan, 1992). SLA data are also potentially useful for explicating relationships between language and thought; for example, through exploring claims concerning semantic and cultural universals (see, e.g., Dietrich, Klein, and Noyau, 1995), or relationships between language development and cognitive development (Curtiss, 1982) – confounded in children, but not in SLA by adults. There is also a rich tradition of comparisons among SLA, pidginization, and creolization (see, e.g., Adamson, 1988; Andersen, 1983b; Andersen and Shirai, 1996; Bickerton, 1984; Meisel, 1983; Schumann, 1978; Valdman and Phillips, 1975).

In neuroscience, SLA data can help show where and how the brain stores and retrieves linguistic knowledge (see, e.g., Green, 2002; Obler and Hannigan, 1996; Ullman, 2002); which areas are implicated in acquisition (see, e.g., Schumann, 1998); how the brain adapts to additional burdens, such as bilingualism (see, e.g., Albert and Obler, 1978; Jacobs, 1988; Kroll, Michael, and Sankaranarayanan, 1998; Kroll and Sunderman, this volume), or trauma resulting in bilingual or multilingual aphasia (see, e.g., Galloway, 1981; Paradis,

1990); and whether the brain is progressively more limited in handling any of those tasks. In what has become one of the most active areas of work in recent years, SLA researchers seek to determine whether observed differences in the success of children and adults with second languages is because the brain is subject to maturational constraints in the form of sensitive periods for language learning (see, e.g., Birdsong, 1999; Bongaerts, Mennen, and van der Slik, 2000; DeKeyser, 2000; Flege, Yeni-Komshian, and Liu, 1999; Hyltenstam and Abrahamsson, this volume; Ioup, Boustagui, El Tigi, and Moselle, 1994; Long, 1990b, forthcoming b; Schachter, 1996).

Basic research sometimes yields unexpected practical applications, and that may turn out to be true of basic SLA research, too. Much work in SLA, however, has clear applications or potential applications from the start. The most obvious of these is second (including foreign) language teaching (see, e.g., Doughty, 1991, this volume; Doughty and Williams, 1998; N. Ellis and Laporte, 1997; R. Ellis, 1989; de Graaff, 1997; Lightbown and Spada, 1999; Long, 1988; Norris and Ortega, 2000; Pica, 1983; Pienemann, 1989; Sharwood-Smith, 1993), since SLA researchers study the process language teaching is designed to facilitate.<sup>2</sup> For bilingual, immersion, and second dialect education, second language literacy programs, and whole educational systems delivered through the medium of a second language, SLA research findings offer guidance on numerous issues. Examples include the optimal timing of L1 maintenance and L2 development programs, the linguistic modification of teaching materials, the role of implicit and explicit negative feedback on language error, and language and content achievement testing.

SLA research findings are also potentially very relevant for populations with special language-learning needs. These include certain abnormal populations, such as Alzheimer's patients (see, e.g., Hyltenstam and Stroud, 1993) and Down syndrome children, where research questions concerning so-called (first) "language intervention" programs are often quite similar to those of interest for (second) "language teaching" (see, e.g., Mahoney, 1975; Rosenberg, 1982). Other examples are groups, such as immigrant children, for whom it is crucial that educators not confuse second language problems with learning disabilities (see, e.g., Cummins, 1984); bilinguals undergoing primary language loss (Seliger, 1996; Seliger and Vago, 1991; Weltens, De Bot, and van Els, 1986); and deaf and hearing individuals learning a sign language, such as American Sign Language (ASL), as a first or second language, respectively (see, e.g., Berent, 1996; Mayberry, 1993; Strong, 1988). In all these cases, as Bley-Vroman (1990) pointed out, researchers are interested in explaining not only how success is achieved, but why – in stark contrast with almost uniformly successful child first language acquisition – at least partial failure is so common in SLA.

## NOTES

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- 1 A seminar on theory change in SLA, with readings from the history, philosophy, and sociology of science and the sociology of knowledge, is now regularly offered as an elective for M.A. and Ph.D. students in the University of Hawai'i's Department of Second Language Studies. The importance of such a "big picture" methodology course in basic training for SLA researchers – arguably at least as great as that of the potentially endless series of "grassroots" courses in quantitative and qualitative research methods and statistics that are now routine – will likely become more widely recognized over time.
- 2 The utility of some work in SLA for this purpose does not mean that SLA is the only important source of information, and certainly not that a theory of SLA should be passed off as a theory of language teaching. Nor, conversely, does it mean, as has occasionally been suggested, that SLA theories should be evaluated by their relevance to the classroom.

## REFERENCES

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- Adamson, H. D. 1988: *Variation Theory and Second Language Acquisition*. Washington, DC: Georgetown University Press.
- Albert, M. L. and Obler, L. 1978: *The Bilingual Brain: Neuropsychological and Neurolinguistic Aspects of Bilingualism*. San Diego: Academic Press.
- Andersen, R. W. 1983a: Transfer to somewhere. In S. M. Gass and L. Selinker (eds), *Language Transfer in Language Learning*. Rowley, MA: Newbury House, 177–201.
- Andersen, R. W. 1983b: *Pidginization and Creolization as Language Acquisition*. Rowley, MA: Newbury House.
- Andersen, R. W. 1984: The one to one principle of interlanguage construction. *Language Learning*, 34 (4), 77–95.
- Andersen, R. W. and Shirai, Y. 1996: The primacy of aspect in first and second language acquisition: the pidgin–creole connection. In W. R. Ritchie and T. J. Bhatia (eds), *Handbook of Second Language Acquisition*. San Diego: Academic Press, 527–70.
- Bachman, L. and Cohen, A. D. 1998: *Interfaces between Second Language Acquisition and Language Testing Research*. Cambridge: Cambridge University Press.
- Bayley, R. and Preston, D. R. (eds) 1996: *Second Language Acquisition and Linguistic Variation*. Philadelphia: John Benjamins.
- Berent, G. P. 1996: The acquisition of English syntax by deaf learners. In W. R. Ritchie and T. J. Bhatia (eds), *Handbook of Second Language Acquisition*. San Diego: Academic Press, 469–506.
- Beretta, A. 1991: Theory construction in SLA. Complementarity and opposition. *Studies in Second Language Acquisition*, 13 (4), 493–512.
- Beretta, A. and Crookes, G. 1993: Cognitive and social determinants in the context of discovery in SLA. *Applied Linguistics*, 14 (3), 250–75.
- Bickerton, D. 1984: The language bioprogram hypothesis and second language acquisition. In W. E. Rutherford (ed.), *Language*

- Universals and Second Language Acquisition*. Amsterdam and Philadelphia: John Benjamins, 141–61.
- Birdsong, D. 1989: *Metalinguistic Performance and Interlinguistic Competence*. Berlin and New York: Springer Verlag.
- Birdsong, D. (ed.) 1999: *Second Language Acquisition and the Critical Period Hypothesis*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Bley-Vroman, R. 1990: The logical problem of foreign language learning. *Linguistic Analysis*, 20 (1–2), 3–49.
- Bongaerts, T., Mennen, S., and van der Slik, F. 2000: Authenticity of pronunciation in naturalistic second language acquisition. The case of very advanced late learners of Dutch as a second language. *Studia Linguistica*, 54, 298–308.
- Clahsen, H. 1987: Connecting theories of language processing and (second) language acquisition. In C. Pfaff (ed.), *First and Second Language Acquisition Processes*. Cambridge, MA: Newbury House, 103–16.
- Crookes, G. 1992: Theory format and SLA theory. *Studies in Second Language Acquisition*, 14 (4), 425–49.
- Cummins, J. 1984: *Bilingualism and Special Education: Issues on Assessment and Pedagogy*. Clevedon: Multilingual Matters.
- Curtiss, S. 1982: Developmental dissociation of language and cognition. In L. K. Obler and L. Menn (eds), *Exceptional Language and Linguistics*. New York: Academic Press, 285–312.
- DeKeyser, R. 2000: The robustness of critical period effects in second language acquisition. *Studies in Second Language Acquisition*, 22 (4), 493–533.
- DeKeyser, R. 2001: Automaticity and automatization. In P. Robinson (ed.), *Cognition and Second Language Instruction*. Cambridge: Cambridge University Press, 125–51.
- Dietrich, R., Klein, W., and Noyau, C. 1995: *The Acquisition of Temporality in a Second Language*. Amsterdam and Philadelphia: John Benjamins.
- Doughty, C. J. 1991: Second language instruction does make a difference: evidence from an empirical study of SL relativization. *Studies in Second Language Acquisition*, 13 (4), 431–69.
- Doughty, C. J. 2000: Negotiating the L2 linguistic environment. *University of Hawai'i Working Papers in ESL*, 18 (2), 47–83.
- Doughty, C. J. and Long, M. H. 2000: Eliciting second language speech data. In L. Menn and N. Bernstein Ratner (eds), *Methods for Studying Language Production*. Mahwah, NJ: Lawrence Erlbaum Associates, 149–77.
- Doughty, C. J. and Williams, J. 1998: *Focus on Form in Classroom Second Language Acquisition*. Cambridge: Cambridge University Press.
- Eades, D. 1992: *Aboriginal English and the Law: Communicating with Aboriginal English-Speaking Clients: A Handbook for Legal Practitioners*. Brisbane: Queensland Law Society.
- Eckman, F. R. 1996a: On evaluating arguments for special nativism in second language acquisition theory. *Second Language Research*, 12 (4), 335–73.
- Eckman, F. R. 1996b: A functional-typological approach to second language acquisition theory. In W. C. Ritchie and T. K. Bhatia (eds), *Handbook of Second Language Acquisition*. San Diego: Academic Press, 195–211.
- Ellis, N. 1993: Rules and instances in foreign language learning: interactions of explicit and implicit knowledge. *European Journal of Cognitive Psychology*, 5, 289–318.
- Ellis, N. 1994: *Implicit and Explicit Learning of Languages*. New York: Academic Press.

- Ellis, N. 2001: Memory for language. In P. Robinson (ed.), *Cognition and Second Language Instruction*. Cambridge: Cambridge University Press, 33–68.
- Ellis, N. and Laporte, N. 1997: Contexts of acquisition: effects of formal instruction and naturalistic exposure on second language acquisition. In A. M. de Groot and J. F. Kroll (eds), *Tutorials in Bilingualism: Psycholinguistic Perspectives*. Mahwah, NJ: Lawrence Erlbaum Associates, 53–83.
- Ellis, R. 1989: Are classroom and naturalistic acquisition the same? A study of classroom acquisition of German word order rules. *Studies in Second Language Acquisition*, 11 (3), 305–28.
- Ellis, R. 1994: *The Study of Second Language Acquisition*. Oxford: Oxford University Press.
- Ellis, R. 1999: Item versus system learning: explaining free variation. *Applied Linguistics*, 20 (4), 460–80.
- Eubank, L. 1991: Introduction: Universal Grammar in the second language. In L. Eubank (ed.), *Point Counterpoint: Universal Grammar in the Second Language*. Amsterdam and Philadelphia: John Benjamins, 1–48.
- Faerch, C. and Kasper, G. (ed.) 1987: *Introspection in Second Language Research*. Clevedon: Multilingual Matters.
- Fishman, J. A. 2001: *Can Threatened Languages be Saved?* Clevedon: Multilingual Matters.
- Flege, J. E., Yeni-Komshian, G. H., and Liu, S. 1999: Age constraints on second-language acquisition. *Journal of Memory and Language*, 41, 78–104.
- Galloway, L. M. 1981: The convolutions of second language: a theoretical article with a critical review and some new hypotheses towards a neuropsychological model of bilingualism and second language performance. *Language Learning*, 31 (2), 439–64.
- Gass, S. M. 1996: Second language acquisition and linguistic theory: the role of language transfer. In W. R. Ritchie and T. J. Bhatia (eds), *Handbook of Second Language Acquisition*. San Diego: Academic Press, 317–45.
- Gass, S. M. and Selinker, L. (eds) 1983: *Language Transfer in Language Learning*. Rowley, MA: Newbury House.
- Gass, S. M. and Selinker, L. 2001: *Second Language Acquisition: An Introductory Course*. Second edition. Mahwah, NJ: Lawrence Erlbaum Associates.
- Gasser, M. 1990: Connectionism and universals of second language acquisition. *Studies in Second Language Acquisition*, 12 (2), 179–99.
- Graaff, R. de 1997: The eXperanto experiment: effects of explicit instruction on second language acquisition. *Studies in Second Language Acquisition*, 19 (2), 249–76.
- Green, D. W. (ed.) 2002: The cognitive neuroscience of bilingualism. *Bilingualism: Language and Cognition*, 4 (2), 101–201.
- Gregg, K. R. 1989: Second language acquisition theory: the case for a generative perspective. In S. M. Gass and J. Schachter (eds), *Linguistic Perspectives on Second Language Acquisition*. Cambridge: Cambridge University Press, 15–40.
- Gregg, K. R. 1993: Taking explanation seriously; or, Let a couple of flowers bloom. *Applied Linguistics*, 14 (3), 276–94.
- Gregg, K. R. 1994: Second language acquisition: history and theory. *Encyclopedia of Language and Linguistics*. Second edition. Oxford: Pergamon, 3720–6.
- Gregg, K. R. 1996: The logical and developmental problems of second language acquisition. In W. R. Ritchie and T. J. Bhatia (eds), *Handbook of*

- Second Language Acquisition*. San Diego: Academic Press, 49–81.
- Gregg, K. R. 2000: A theory for every occasion: postmodernism and SLA. *Second Language Research*, 16 (4), 343–59.
- Gregg, K. R., Long, M. H., Jordan, G., and Beretta, A. 1997: Rationality and its discontents in SLA. *Applied Linguistics*, 17 (1), 63–83.
- Haig, Y. 2001: Teacher perceptions of student speech. Ph.D. dissertation. Edith Cowan University.
- Harrington, M. 2001: Sentence processing. In P. Robinson (ed.), *Cognition and Second Language Instruction*. Cambridge: Cambridge University Press, 91–124.
- Hatch, E. M. 1978: Discourse analysis and second language acquisition. In E. M. Hatch (ed.), *Second Language Acquisition: A Book of Readings*. Rowley, MA: Newbury House, 401–35.
- Huebner, T. 1983a: *A Longitudinal Analysis of the Acquisition of English*. Ann Arbor, MI: Karoma.
- Huebner, T. 1983b: Linguistic systems and linguistic change in an interlanguage. *Studies in Second Language Acquisition*, 6 (1), 33–53.
- Huebner, T. and Davis, K. A. 1999: *Sociopolitical Perspectives on Language Policy and Planning in the USA*. Amsterdam and Philadelphia: John Benjamins.
- Hulstijn, J. H. 2001: Intentional and incidental second language learning: a reappraisal of elaboration, rehearsal and automaticity. In P. Robinson (ed.), *Cognition and Second Language Instruction*. Cambridge: Cambridge University Press, 258–86.
- Hyltenstam, K. and Stroud, C. 1993: Second language regression in Alzheimer's dementia. In K. Hyltenstam and A. Viberg (eds), *Progression and Regression in Language: Sociocultural, Neuropsychological and Linguistic Perspectives*. Cambridge: Cambridge University Press, 222–42.
- Ioup, G., Boustagui, E., El Tigi, M., and Moselle, M. 1994: Reexamining the critical period hypothesis: a case study of successful adult SLA in a naturalistic environment. *Studies in Second Language Acquisition*, 16 (1), 73–98.
- Iwashita, N. 2001: The role of task-based conversation in the acquisition of Japanese grammar and vocabulary. Ph.D. thesis. University of Melbourne, Department of Linguistics and Applied Linguistics.
- Jacobs, B. 1988: Neurobiological differentiation in primary and secondary language acquisition. *Studies in Second Language Acquisition*, 10 (3), 303–37.
- Johnston, M. 1999: System and variation in interlanguage development. Unpublished Ph.D. dissertation. Canberra: Australian National University.
- Jordan, G. 2002: Theory construction in SLA. Ph.D. dissertation. London University, Institute of Education.
- Jordens, P. 1994: The cognitive function of case marking in German as a native and a foreign language. In S. M. Gass and L. Selinker (eds), *Language Transfer in Language Learning*. Second edition. Amsterdam and Philadelphia: John Benjamins, 138–75.
- Jordens, P. and Lalleman, J. (eds) 1988: *Language Development*. Dordrecht: Foris.
- Kasper, G. 1992: Pragmatic transfer. *Second Language Research*, 8 (3), 203–31.
- Kellerman, E. 1984: The empirical evidence for the influence of the L1 in interlanguage. In A. Davies, C. Cripe, and A. Howatt (eds), *Interlanguage*. Edinburgh: Edinburgh University Press, 98–122.
- Kellerman, E. 1989: The imperfect conditional. In K. Hyltenstam and L. K. Obler (eds), *Bilingualism Across*

- the Lifespan: Aspects of Acquisition, Maturity, and Loss*. Cambridge: Cambridge University Press, 87–115.
- Kellerman, E. and Sharwood-Smith, M. (eds) 1986: *Cross-Linguistic Influence in Second Language Acquisition*. New York: Pergamon.
- Klein, F. 1981: The acquisition of English in Hawai'i by Korean adolescent immigrants: a longitudinal study of verbal auxiliary agreement. Ph.D. dissertation. University of Hawai'i, Department of Linguistics.
- Klein, W. 1986: *Second Language Acquisition*. Cambridge: Cambridge University Press.
- Kroll, J. F., Michael, E., and Sankaranarayanan, A. 1998: A model of bilingual representation and its implications for second language acquisition. In A. F. Healy and L. E. Bourne, Jr (eds), *Foreign Language Learning: Psycholinguistic Studies on Training and Retention*. Mahwah, NJ: Lawrence Erlbaum Associates, 365–95.
- Larsen-Freeman, D. 1991: Second language acquisition research: staking out the territory. *TESOL Quarterly*, 25 (2), 315–50.
- Larsen-Freeman, D. and Long, M. H. 1991: *An Introduction to Second Language Acquisition Research*. London: Longman.
- Liceras, J. 1986: *Linguistic Theory and Second Language Acquisition*. Tübingen: Gubter Narr.
- Liceras, J. M., Maxwell, D., Laguardia, B., Fernández, Z., Fernández, R., and Diaz, L. 1997: A longitudinal study of Spanish non-native grammars: beyond parameters. In A. T. Pérez-Leroux and W. Glass (eds), *Contemporary Perspectives on the Acquisition of Spanish. Vol. 1: Developing Grammars*. Somerville, MA: Cascadilla Press, 99–132.
- Lightbown, P. M. and Spada, N. 1999: *How Languages are Learned*. Revised edition. Oxford: Oxford University Press.
- Lo Bianco, J. 1987: *National Policy on Languages*. Canberra: Australian Government Publishing Service.
- Long, M. H. 1988: Instructed interlanguage development. In L. M. Beebe (ed.), *Issues in Second Language Acquisition: Multiple Perspectives*. Cambridge, MA: Newbury House, 115–41.
- Long, M. H. 1990a: The least a second language acquisition theory needs to explain. *TESOL Quarterly*, 24 (4), 649–66.
- Long, M. H. 1990b: Maturational constraints on language development. *Studies in Second Language Acquisition*, 12 (3), 251–85.
- Long, M. H. 1993: Assessment strategies for second language acquisition theories. *Applied Linguistics*, 14 (3), 225–49.
- Long, M. H. 1996: The role of the linguistic environment in second language acquisition. In W. R. Ritchie and T. J. Bhatia (eds), *Handbook of Second Language Acquisition*. San Diego: Academic Press, 413–68.
- Long, M. H. 1998: SLA: breaking the siege. *University of Hawai'i Working Papers in ESL*, 17 (1), 79–129. Also to appear in M. H. Long, *Problems in SLA*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Long, M. H. 1999: Ebonics, language and power. In F. L. Pincus and H. J. Ehrlich (eds), *Race and Ethnic Conflict: Contending Views on Prejudice, Discrimination, and Ethnoviolence*. Second edition. Westview/HarperCollins, 331–45.
- Long, M. H. forthcoming a: Theory change in SLA. In M. H. Long, *Problems in SLA*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Long, M. H. forthcoming b: Age differences and the sensitive periods controversy in SLA. In M. H. Long, *Problems in SLA*. Mahwah, NJ: Lawrence Erlbaum Associates.

- Long, M. H. and Robinson, P. 1998: Focus on form: theory, research and practice. In C. J. Doughty and J. Williams (eds), *Focus on Form in Classroom Second Language Acquisition*. Cambridge: Cambridge University Press, 15–41.
- MacWhinney, B. 2001: The Competition Model: the input, the context and the brain. In P. Robinson (ed.), *Cognition and Second Language Instruction*. Cambridge: Cambridge University Press, 69–90.
- Mahoney, G. 1975: Ethnological approach to delayed language acquisition. *American Journal of Mental Deficiency*, 80, 139–48.
- Malcolm, I. 1994: Aboriginal English inside and outside the classroom. *Australian Review of Applied Linguistics*, 17 (1), 147–80.
- Mayberry, R. 1993: First-language acquisition after childhood differs from second-language acquisition: the case of American Sign Language. *Journal of Speech and Hearing Research*, 36, 1258–70.
- Meisel, J. M. 1983: Strategies of second language acquisition: more than one kind of simplification. In R. W. Andersen (ed.), *Pidginization and Creolization as Second Language Acquisition*. Rowley, MA: Newbury House, 120–57.
- Mitchell, R. and Miles, F. 1998: Functional/pragmatic perspectives on second language learning. In R. Mitchell and F. Miles (eds), *Second Language Learning Theories*. London: Arnold, 100–20.
- Morgan, M. 1999: US language planning and policies for social dialect speakers. In T. Huebner and K. A. Davies (eds), *Sociopolitical Perspectives on Language Policy and Planning in the USA*. Amsterdam and Philadelphia: John Benjamins, 173–91.
- Norris, J. and Ortega, L. 2000: Effectiveness of instruction: a research synthesis and quantitative meta-analysis. *Language Learning*, 50 (3), 417–528.
- Obler, L. and Hannigan, S. 1996: Neurolinguistics of second language acquisition and use. In W. R. Ritchie and T. J. Bhatia (eds), *Handbook of Second Language Acquisition*. San Diego: Academic Press, 509–23.
- Odlin, T. 1989: *Language Transfer*. Cambridge: Cambridge University Press.
- O’Grady, W. 2001a: Language acquisition and language loss. Ms. University of Hawai’i, Department of Linguistics.
- O’Grady, W. 2001b: An emergentist approach to syntax. Ms. University of Hawai’i, Department of Linguistics.
- Pankhurst, J., Sharwood-Smith, M., and Van Buren, P. 1988: *Learnability and Second Languages: A Book of Readings*. Dordrecht: Foris.
- Paradis, M. 1990: Bilingual and polyglot aphasia. In F. Boller and J. Grafman (eds), *Handbook of Neuropsychology*. Vol. 2. New York: Elsevier, 117–40.
- Philipson, R. (ed.) 2000: *Rights to Language: Equity, Power, and Education*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Pica, T. 1983: Adult acquisition of English as a second language under different conditions of exposure. *Language Learning*, 33 (4), 465–97.
- Pica, T. 1992: The textual outcomes of native speaker/non-native speaker negotiation: what do they reveal about second language learning? In C. Kramsch and S. McConnell-Ginet (eds), *Text and Context: Cross-Disciplinary Perspectives on Language Study*. Lexington, MA: D. C. Heath, 198–237.
- Pienemann, M. 1989: Is language teachable? *Applied Linguistics*, 10 (1), 52–79.
- Pienemann, M. 1998: *Language Processing and Second Language Development*:

- Processability Theory*. Amsterdam and Philadelphia: John Benjamins.
- Preston, D. R. 1989: *Sociolinguistics and Second Language Acquisition*. Oxford: Blackwell.
- Preston, D. R. 1996: Variationist linguistics and second language acquisition. In W. C. Ritchie and T. K. Bhatia (eds), *Handbook of Second Language Acquisition*. San Diego: Academic Press, 229–65.
- Reynolds, S. B. 1999: Mutual intelligibility? Comprehension problems between American Standard English and Hawai'i Creole English in Hawai'i's public schools. In J. R. Rickford and S. Romaine (eds), *Creole Genesis, Attitudes and Discourse*. Amsterdam and Philadelphia: John Benjamins, 303–19.
- Rickford, J. R. 2000: *African American Vernacular English: Features, Evolution, Educational Implications*. Oxford: Blackwell.
- Ringbom, H. 1987: *The Role of the First Language in Foreign Language Learning*. Clevedon: Multilingual Matters.
- Ritchie, W. R. and Bhatia, T. J. (eds) 1996: *Handbook of Second Language Acquisition*. San Diego: Academic Press.
- Robinson, P. 1996: Learning simple and complex second language rules under implicit, incidental, rule-search and instructed conditions. *Studies in Second Language Acquisition*, 18 (1), 27–67.
- Robinson, P. 1997: Individual differences and the fundamental similarity of implicit and explicit adult second language learning. *Language Learning*, 47 (1), 45–99.
- Robinson, P. (ed.) 2001: *Cognition and Second Language Instruction*. Cambridge: Cambridge University Press.
- Rosenberg, S. 1982: The language of the mentally retarded: development processes and intervention. In S. Rosenberg (ed.), *Handbook of Applied Psycholinguistics: Major Thrusts of Research and Theory*. Hillsdale, NJ: Lawrence Erlbaum Associates, 329–92.
- Rutherford, W. E. (ed.) 1984: *Language Universals and Second Language Acquisition*. Amsterdam and Philadelphia: John Benjamins.
- Sato, C. J. 1985: Linguistic inequality in Hawai'i: the post-creole dilemma. In N. Wolfson and J. Manes (eds), *Language of Inequality*. Berlin: Mouton, 255–72.
- Sato, C. J. 1988: Origins of complex syntax in interlanguage development. *Studies in Second Language Acquisition*, 10 (3), 371–95.
- Sato, C. J. 1989: A non-standard approach to Standard English. *TESOL Quarterly*, 23 (2), 259–82.
- Sato, C. J. 1990: *The Syntax of Conversation in Interlanguage Development*. Tübingen: Gunter Narr.
- Schachter, J. 1996: Maturation and the issue of UG in L2 acquisition. In W. R. Ritchie and T. J. Bhatia (eds), *Handbook of Second Language Acquisition*. San Diego: Academic Press, 159–93.
- Schmidt, R. W. 1983: Interaction, acculturation and the acquisition of communicative competence. In N. Wolfson and E. Judd (eds), *Sociolinguistics and Second Language Acquisition*. Rowley, MA: Newbury House, 137–74.
- Schmidt, R. W. (ed.) 1995: *Attention and Awareness in Foreign Language Learning*. Honolulu: University of Hawai'i Press.
- Schumann, J. H. 1978: *The Pidginization Process: A Model for Second Language Acquisition*. Rowley, MA: Newbury House.
- Schumann, J. H. 1998: The neurobiology of affect in language. *Language Learning*, 48: Supplement 1.
- Schwartz, B. D. 1992: Testing between UG-based and problem-solving

- models of L2A: developmental sequence data. *Language Acquisition*, 2 (1), 1–19.
- Segalowitz, N. 1997: Individual differences in second language acquisition. In A. M. de Groot and J. F. Kroll (eds), *Tutorials in Bilingualism: Psycholinguistic Perspectives*. Mahwah, NJ: Lawrence Erlbaum Associates, 85–112.
- Seliger, H. W. 1996: Primary language attrition in the context of bilingualism. In W. R. Ritchie and T. J. Bhatia (eds), *Handbook of Second Language Acquisition*. San Diego: Academic Press, 605–26.
- Seliger, H. W. and Vago, R. M. (eds) 1991: *First Language Attrition*. Cambridge: Cambridge University Press.
- Selinker, L. 1969: Language transfer. *General Linguistics*, 9, 67–92.
- Selinker, L. 1972: Interlanguage. *International Review of Applied Linguistics*, 10 (3), 209–31.
- Selinker, L. and Lakshmanan, U. 1992: Language transfer and fossilization: the multiple effects principle. In S. M. Gass and L. Selinker (eds), *Language Transfer in Language Learning*. Amsterdam and Philadelphia: John Benjamins, 97–116.
- Sharwood-Smith, M. 1993: Input enhancement in instructed SLA: theoretical bases. *Studies in Second Language Acquisition*, 15 (2), 165–79.
- Siegel, J. 1996: *Vernacular Education in the South Pacific*. International Development Issues No. 45. Canberra: Australian Agency for International Development.
- Siegel, J. 1997: Using a pidgin language in formal education: help or hindrance? *Applied Linguistics*, 18, 86–100.
- Siegel, J. 1999: Creole and minority dialects in education: an overview. *Journal of Multilingual and Multicultural Development*, 20, 508–31.
- Sorace, A. 1996: The use of acceptability judgments in second language acquisition research. In W. R. Ritchie and T. J. Bhatia (eds), *Handbook of Second Language Acquisition*. San Diego: Academic Press, 375–409.
- Strong, M. (ed.) 1988: *Language Learning and Deafness*. Cambridge: Cambridge University Press.
- Tarone, E. E. 1988: *Variation and Second Language Acquisition*. London: Edward Arnold.
- Tarone, E. E., Gass, S. M., and Cohen, A. D. 1994: *Research Methodology in Second-Language Acquisition*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Tomlin, R. S. 1990: Functionalism in second language acquisition. *Studies in Second Language Acquisition*, 12 (2), 155–77.
- Tomlin, R. and Villa, V. 1994: Attention in cognitive science and second language acquisition. *Studies in Second Language Acquisition*, 16 (2), 183–203.
- Towell, R. and Hawkins, R. 1994: *Approaches to Second Language Acquisition*. Clevedon: Multilingual Matters.
- Ullman, M. T. 2002: The neural basis of lexicon and grammar in first and second language: the declarative/procedural model. *Bilingualism: Language and Cognition*, 4 (2), 105–22.
- Valdman, A. and Phillips, J. 1975: Pidginization, creolization and the elaboration of learner systems. *Studies in Second Language Acquisition*, 1 (1), 21–40.
- Warner, N. 2001: Kūi ka māna‘ai: children acquire traits of those who raise them. Plenary: Pacific Second Language Research Forum. University of Hawai‘i, October 6.
- Watson-Gegeo, K. A. 1992: Thick explanation in the ethnographic study of child socialization: a longitudinal study of the problem of schooling for

- Kwara'ae (Solomon Islands) children. In W. A. Corsaro and P. J. Miller (eds), *Interpretative Approaches to Children's Socialization*. San Francisco: Jossey-Bass, 51–66.
- Weltens, B., De Bot, K., and van Els, T. (eds) 1986: *Language Attrition in Progress*. Dordrecht: Foris.
- White, L. 1989: *Universal Grammar and Second Language Acquisition*. Amsterdam and Philadelphia: John Benjamins.
- Williams, J. 1988: Zero anaphora in second language acquisition: a comparison among three varieties of English. *Studies in Second Language Acquisition*, 10 (3), 339–70.
- Wolfe-Quintero, K. 1996: Nativism does not equal Universal Grammar. *Second Language Research*, 12 (4), 335–73.
- Wong, L. 1999: Language varieties and language policy: the appreciation of Pidgin. In T. Huebner and K. A. Davies (eds), *Sociopolitical Perspectives on Language Policy and Planning in the USA*. Amsterdam and Philadelphia: John Benjamins, 205–22.
- Young, R. 1990: *Variation in Interlanguage Morphology*. Amsterdam and Philadelphia: John Benjamins.
- Zobl, H. 1984: The Wave Model of linguistic change and the naturalness of interlanguage. *Studies in Second Language Acquisition*, 6 (2), 160–85.