Index

Abaurre, B. 73, 74
accuracy of reading exceeds accuracy of writing 25–6, 30
and speed of reading 15–17, 19
word and non-word reading 27, 30
Adams, M. 218
adult reading
Chinese via Pinyin 181–2
‘dual route’ model of acquisition of orthographic lexicon 18
role of morphemes in 113, 114, 131
adults
cross-national comparisons of literacy 169
illiterate and phonemic awareness 137
illiterate Taiwanese 182
inability to read what they have written 22
African societies 168–9
Agard, F. B. 11
age
and development of phonological awareness 103, 137, 226
and levels of writing competence 94–5, 96
of school start 157, 158, 161–4, 165
Aldinis, Athanasiaos 4–5, 64, 112–33
Akita, Kiyomi 8–9, 214–34
Albrow, K. H. 36
Alegria, J. 51, 103, 137, 183, 199
alphabetic principle 71, 72–3, 77, 178
alphabetic script
effect of learning on phonological awareness of Chinese children 191
importance of morphemes in reading 113
learning to read and spell 1–6, 71, 81
transparency and spelling 4–5
alphabetic stage (Frith) 34, 85, 199,
200–1, 206
alphabetic strategy for reading 52, 54, 56, 63, 67, 218
alphabetic writing systems 173, 176
of Chinese 178
dyslexia in 189
Alvarenga, D. 73
Amano, K. 219–21, 227
American children
compared with Italian pre-school 21
reading ability compared with Japanese and Taiwanese children 189–90
reading English written in Chinese characters 189
Amsterdamer, P. 91, 93, 94
analogy
reading by 20, 187, 225–6
see also lexical analogy models;
morphological analogy task;
orthographic analogies; sentence analogy; word analogy
Ancient Chinese 174
Anderson, M. 52
Anderson, R. C. 97
Arabic 166
non-literates speaking 103
Argentina 72
assimilations 160–1, 170
Akins, P. 199
auditory word memory task 230
Austria 143, 154, 161
Azuma, H. 228, 231
Bahasa Indonesia 204
Bahasa Melayu 196
alphabetic shallow orthography 197–8
Bahasa-Melayu-English-speaking children, in Singapore 197
Bagai, N. 90
Barnhart, J. 92
Barron, J. 20, 202–3
Barron, R. 204
Beck, I. 183
Beech, J. 57
Index

Belgium 161
Bell, L. C. 183
Ben-Dror, I. 102, 105
Benson, F. 22
Bentin, S. 90, 91, 100, 101, 102, 103, 104, 105–6, 113, 200
Berber-speaking children, in Morocco 166
Berent, I. 42–3
Berman, R. 89
Bertelson, P. 29, 51, 137, 199
Bijeljac-Babic, R. 42, 142–3
Billeter, J. 124
Bindman, M. 64, 79, 81, 82, 85, 116–20, 122–3, 123–7, 128–30
Birnboim, S. 96, 98, 99
bисcriptal children 196–209
Bissex, G. L. 22
Bjaalid, I. K. 142, 164
blending 28, 36, 159
Boccaccio, Giovanni, *Decameron* 12
bootstrapping model 96
Borström, I. 164
Bowey, J. A. 81, 146
Bowley, N. 51
Bradley, L. 22, 51, 52, 72, 136, 137, 138–140, 183, 203
Brady, S. A. 43, 201
brain damage, and reading and writing acquisition 2, 28–30, 30 Brazilian Portuguese see Portuguese
Brennenman, K. 92
Breznitz, Z. 103, 104
British Ability Scales (BAS) 40, 198
British Picture Vocabulary Scale (BPVS) 198
Brown, T. L. 206
Bruck, M. 22, 134, 139, 146
Bryant, Peter E. 4–5, 18, 22, 52, 64, 72, 79, 81, 82, 85, 102, 112–33, 136, 137, 138, 140–1, 178, 179, 180–1, 182–3, 187, 188, 191, 192, 203, 225, 226
Buarque, L. L. 76–80, 81, 82–5
Bull, T. 160
Burrington, B. 185
Cahan, S. 102, 103, 200
Campbell, R. 185
Canada 169
Index

see also Ancient Chinese; Cantonese; Gan; Hakka; Mandarin; Min; Wu; Xiang

Chinese characters 173, 185–8
radical and phonetic parts 175, 187–8
reasons for retention of 176–7
represent morphemes or syllables 7, 173
use of the phonetic component of compound 175–6, 185–9, 192

Chinese children
phonological awareness and knowledge of an alphabetic system 181–2
phonological awareness and reading ability 179–85
reading difficulty compared with English children 189–91
reading errors 188–9, 191
sensitivity to phonetic element of compound characters 186–7
sensitivity to radical component of characters 187–8
writing errors 178

‘Chinese’ groups, and ‘Phoenician’
groups 202–3

Chinese students, phonological awareness compared with Australian students 184–5

Chinese writing system 173, 174–9, 192
compared to Japanese 8–9
instruction in 174–9
teaching in China, Taiwan and Hong Kong 7

Chinese-English-speaking children
difficulties in learning to read English 201–2
dyslexia in 207–9

Chinese-speaking children, phonological awareness compared with English-speaking children 182–4

Chomsky, C. 22
‘clue’ word technique 144–6

Clay, M. 183
code acquisition, and nonsense word reading 152–3
cognitive deficit, in Chinese children with reading disability 189–90
cognitive development, role in development of phonological awareness 162
cognitive models of development of reading 196, 199
developmental dyslexia 207
cognitive skills correlates of reading ability 15–18, 103–7, 192

individual differences in early reading ability 80–1, 103–7
and literacy acquisition 214–34
Colé, R. A. 206
Colpo, M. 14
Coltheart, M. 19, 20, 52, 191, 199, 204, 206, 207
community resources, and variance in reading achievement 166
conditional spelling rules see spelling rules, conditional
congenital abnormalities 90, 91, 95, 107
Content, A. 103, 149
context reading with word’s 219
sensitivity to syntactic 106
use of phonological 77–8, 81–2, 83
cross-context effects, and visually degraded stimuli 98
cross-contextual facilitation task 82
Cornoldi, C. 14
Cossu, Giuseppe 1–2, 10–33, 52, 54, 61, 86, 134, 138, 157
Counter-Reformation 168
Crameri, B. B. 51, 101, 142
Cristante, F. 21
cross-cultural perspective 157–72
cross-linguistic similarities in acquisition of literacy in different types of script 1, 8
cross-linguistic studies 1–9
developmental 112–33
doing phonological awareness 138–9
doing nonsense word reading 152–3
doing phonological awareness in different orthographies 134–56
cultural beliefs, in value of literacy 229
cultural capital 166
cultural-historical perspective on reading 157, 168–9, 170
Cummingham, A. B. 51, 101, 142
Curris, B. 199
Cutler, A. 227
CVC (phonics) analysis in English 142–4
Czech 138
De Mota, M. 118
Darroko, H. 221
Danish 159
pre-school reading experience 162
role of morphemes in reading 113
underarticulation in 159–60
Dante Alighieri
Commedia 12
De Vulgari Eloquentia 12
de Melo, K. L. R. 79–80, 87
Index

de Morais, A. G. 86
decentration ability 162
decoding
  the ‘cognitive modularity’ of 104
  and Hebrew vowel diacritics 97–9
  method of instruction 154
  rapid mastery of Hebrew 96–7
  single-word 10
  speed of 96–7
decoding skills
  and comprehension 101–2
  and syntactic awareness 81–2, 106
  deep orthographies 20, 165, 176, 197
  Decerme, I. 22
  Denckla, M. B. 43
  Denmark 159, 169
  reading achievement 165
  derivational morphology 5, 112–13
  Hebrew 4, 89–91
  Desberg, P. 72, 75
  Deutsch, A. 105–6
  Deva, F. 14, 15
  developmental dissociations between
     reading and spelling 2, 23–6,
     28–30
  developmental dyslexia see dyslexia,
    developmental
  developmental models of reading
    acquisition 34–50
  Devine, M. 119, 121
  Di Pietro, R. J. 11
  dialects, regional
  Chinese 174
  impact on reading and spelling
    acquisition 160
  dictation task 64–7, 83–4
  Ding, B. 181, 197
  direct route reading 36, 200
  dissociations
    between orthographic skills and other
    aspects of cognition 15, 23–6,
    28–30
  reading/spelling in a transparent
    orthography 23–6
  do Nascimento, M. 73
  Dodd, B. 184–5, 191, 200, 204
  Down’s syndrome children, phonemic
    awareness 29–30, Fig. 2.5
  drawing, difference from writing in
    Japanese 218
  Drosophila 1–2, 10
  Dual Foundation theory of reading
    development (Seymour)
    200–1
  Dual Route Cascaded (DRC) skilled
    reading model 206
‘dual route’ model, of acquisition of
  orthographic lexicon 18–20, 199
  Duques, S. 51
  dyslexia
    in bilingual bicalcral children, case
    study (LJY) 207–9
    biological basis for developmental
    48
    cause similar but manifestation
    different between languages 48
    developmental
    in Hebrew 105
    research on English compared with
    Chinese and Japanese 189–90
    varieties of: visual or phonological
    164
    phonological deficit, as language-
    specific 35, 44–8, 105
  Dyslexia Association of Singapore (DAS)
    202
  dysletic children 30
    English compared with German 2–3,
    39–41, 45–8
  non-word reading 34, 40–1
  phonological coding in German and
    English 39–41
  specific speed deficit of phonological
    coding in German 45–8
  speech-related tasks for 44–5
  working memory limitation in 43–4
  dysphonetic student 185
  early reading
    cognitive and psycholinguistic factors in
    103–7
    and phonological awareness, Hebrew
    compared with English 101–2
    economy, factors in reading achievement
    163, 168
    educational factors, in reading acquisition
    157–9
  Ehri, L. C. 51, 52, 146
  Eisenberg, P. 36
  Elbro, Carsten 113, 124, 161, 163,
    164
  Elder, L. 200
  Ellemius, K. 11
  Elley, W. B. 158, 165
  Elliott, C. D. 40
  Ellis, A. W. 178, 188, 201
  Ellis, N. 43, 62, 141
  Emiliari, M. 21
  Endo, M. E. 225–6
Index

England
historical literacy development 168
mixture of instruction methods 154
ability to write consonants precedes vowels 95
compared with German acquisition 36–44, 47–8
compared with Hebrew, for phonological awareness and early reading 101–2
deciding between alternative spellings 114–15, 118
deep alphabetic orthography 176, 197 ‘ed’ spelling 116–17
grapheme–phoneme correspondences inconsistent 1, 35, 143
morphologically based spelling rules 5
silent morphemes in 116, 119
in Singapore as medium for instruction and commerce 166, 196, 197
spelling silent morphemes 121–2
the spelling system of 142–4
stress-timed 226
versus French, nonsense word reading 147–9
versus Greek, nonsense word reading 149–50
English children 64
development of alternative spellings 120, 121
development of morpho-syntactic awareness 123–7
onset–rhyme awareness 138
rhyme awareness and reading in 140–1
spontaneous focus on spelling patterns for rhymes 144–6
English as a second language 105
English-speaking children, in Singapore 196–213
environment, setting learning 228–9
Epstein, R. 105
errors
Chinese children’s reading 188–9, 191
Chinese children’s writing 178

German and English children’s
compared 38–9
German and English dyslexic children’s
compared 40–1, 42–3
Japanese children writing kana letters 231
nature of reading and writing 27
role of phonological, orthographic and lexical variables in 27
spelling in Brazilian Portuguese 73–4
in sub-syllabic CV units in Hebrew 102
types of reading 188–9
vowel in Hebrew 98, 103
Eshel, R. 98, 99
cytomotor, phonetic in Greek 53
Evans, H. M. 20, 200
Even, D. 98
exposure to print 6, 57, 91, 157, 162, 167, 199
Ezzaki, A. 166
Fang, S. P. 185
Faraco, C. A. 71
Fayol, M. 64, 92, 119, 121–2
Feitelson, D. 97, 98
Ferreiro, Emilia 15, 93, 95
alphabetic principle and spelling stages 7–23
Ferrero, F. E. 11
Finland 159, 168
adult literacy in 169
reading achievement 165
Finnish 159
grapheme–phoneme correspondences regular 159
rules for doubling vowels 160
Fischer, F. W. 103, 135–6
Florencio, 111, 12
Foley, J. 196
Fowler, A. E. 113
Fox, B. 51
Fraca de Barrera, L. 146, 147, 148, 151
French
deep orthography 134, 165
morphologically based spelling rules 5
nonsense word reading and English and Spanish 150–2
versus English 147–9
silent morphemes 116, 119
spelling silent morphemes 121–2
syllable-timed 226
French children 64
development of alternative spellings 121–2
Friedman, M. 72, 75
240 Index

Frith, Uta 2–3, 8, 22, 34–50, 52, 186, 189
stage model of literacy development 8, 34, 72, 75, 199, 200, 206, 217–18, 219–27
Frost, J. 52, 162
Frost, R. 91, 99, 102, 104, 105, 113
Gan 174
Gard, P. 191
Gelb, I. J. 91
Gelman, R. 92
genetics, Drosophila 1–2, 10
German 2–3, 34–50, 51, 52, 62, 134, 138, 141, 142
compared with English acquisition 36–44, 47–8
normal and impaired acquisition 34–50
orthographic regularity 2, 35–6
use of capital letter for proper nouns 116
vowels in 35
German children, acquisition of phonological coding 36–44
Germany 161, 169
Geschwind, N. 22
gestalt, reading with word’s 219
Geva, E. 96, 97, 101
Gianoulis, Vicky 3, 51–70
Gombert, J. E. 92, 124, 134, 146, 147, 148, 151
goswami, Usha 5–6, 18, 20, 36–7, 40, 102, 134–56, 170, 200, 203, 226
Goulardis, N. 51
grammatical categories, recognition of 82, 83–5, 130
Granstrom, B. 11
grapheme–phoneme correspondences consistency of 1–4
conventional spellings which flout rules 116–17, 119–20
inconsistency in fluency reading development 6, 47–8
multiple are more problematic for written than reading 5
and phonemic awareness 170 and reading acquisition 97
Grapheme–phoneme translation 36
slower for dyslexic children 43–4
Greece 161, 165, 169
phonics method 154
Greek 3, 51–70, 147
alternative spellings for the same sound 118–19, 127–8
grapheme–phoneme correspondences 54, 115
morphological spelling rules 3, 5, 53–4, 63–4, 115
open syllable structure 3, 53
orthography 53–4, 149
transparent for reading but less for spelling 3, 53–4
spelling of exceptional words 64–7
syllable types 53
two different alphabets 55–9
Greek children acquiring competence in spelling 63–7
development of alternative spellings 120–1
development of morpho-syntactic awareness 127–30
learning to read and write in first year at school 59–63
morphological awareness and letter knowledge 52–70
Green, D. W. 205, 206
Gugliotta, M. 15–17, 21, 86
Haith, M. 43
Halka 174
Haller, M. 199
Hammer, R. 102, 103, 200
Hammond, E. J. 205
Hanley, J. Richard 7, 134, 173–95, 197
Hanson, J. 146
Hanyu Pinyin 197
Harris, Margaret 1–9, 3, 51–70
Hatano, Giyoo 1–9, 8–9, 214–34
Hatcher, P. J. 201
Haynes, M. 206
Hebrew 4, 89–111
compared with English, for phonological awareness and early reading 101–2
consonantal primacy 4, 90, 91, 95, 103, 107
grapheme–phoneme correspondences almost perfect 4, 90, 97
in-school children learning to read and write in 96–103
language-specific units important for learning to read 102–3, 107–8
Index

morphological structure of script 4, 90–1
morphology 4, 89–91, 99–100, 103, 107
orthography 89–91
phoneme-to-grapheme relationships 90–1, 97
pointed form 4, 89, 90
potential ambiguity in spelling 4, 90, 97
role of morphemes in reading 113
script for pre-school children 91–6
spelling of stems 117
standard printed 90
sub-syllabic (CV) units 4, 89, 91, 102, 105
syllable structure 91, 101, 102–3
transition from pointed to unpointed orthography 105–7
unpointed 89, 90, 91
vowelling systems 4, 90, 107–8

Henderson, L. 113
Herriman, M. 81
Hieshima, J. 92
Hindi, in Singapore 166
hiragana 8, 214, 217
acquisition of 217–27
and katakana correspondence 214
Ho, C. S. 178, 180–1, 182–3, 187, 188, 191, 192
Ho, L.-K. P. 203–4
Høien, Torleiv 52, 142, 161, 164
Holligan, C. 52, 141
Holm, A. 184–5, 191, 200, 204
home factors
number of books at home 168, 169
support for reading at 9, 227–9
and variance in reading achievement 165–7
home teaching
Greek 60
in Scandinavian countries 168
homographs, in Hebrew 90, 91, 98
homonyms
in Chinese 174–5
in Japanese 217
homophones, in Chinese 175, 176
homophonic substitutions 97
Hong, E. L. 198
Hong Kong 7, 169, 181, 182
use of Cantonese 174, 177, 182
Hong Kong children
age of learning to read 178
differences in reading skills 190
homophone tests 180
phonological awareness
in Chinese-speaking and English-speaking 182–4
compared with Taiwanese and British 179–80, 186
reading development 180–1
rhyme detection and single-word reading 180
sensitivity to phonetic element of characters 187, 191
sensitivity to radical element of characters 187–8
Hong Kong students, knowledge of Pinyin and reading Mandarin 184, 185, 191
Hoosain, R. 185
Howell, P. 51
Horng, R. Y. 185
Hsu, C. 189–90
Hu, C. F. 179
Huang, H.-S. 7, 134, 173–95
Hughes, C. 183
Huot, C. 43, 201
Hummer, P. 134, 180
Hun, D. L. 173, 175, 179
Hunt, S. 11
hyperlexic children 20
ideographs 217
ideographs, accompanied by a phonetic symbol 175
IEA see International Association for the Evaluation of Educational Achievement
illiteracy
and civil rights in Scandinavia 168
and phonemic awareness 137
illustrations, words with 219
Imai, M. 97
in-school children see school children
Indagali, K. 218, 221, 227, 230
individual differences in early reading ability, cognitive and psycholinguistic factors 103–7
Indo-European languages 91, 174
inflectional morphology 5, 112
infrared literacy socialisation 6, 157, 167
information processing, different for reading and spelling 86
initial phoneme identification 164
instruction
effect on acquisition of conditional spelling rules 80
effect on variance in reading achievement 166–7
explicit in reading 161–2
necessary in reading for development of phonemic awareness 162
Index

instruction methods and acquisition of literacy 9, 14
analytic and synthetic 159
mixture in England 154
and relations between phonology and orthography 154
and syntactic awareness 82, 85
instructional conditions, factors in reading achievement 165, 228–9
instructional language, different from home language 166
International Association for the Evaluation of Educational Achievement (IEA), reading study 164–6
IQ dissociations with reading 30
non-verbal 95
as predictor of children’s reading age 52
Ireland 166, 169
Israel 161; see also Hebrew
Italian 1–2, 10–33, 51, 54, 86, 138, 157
consonants of 11, 12
grapheme–phoneme correspondence regular (biunivocal) 2, 12–13, Table 2.1
open syllable structure 2
orthography transparent 2, 10, 12–13
phonology 11–12
role of morphemes in reading 113, 114
standard phonology 11
stress assignment 11
syllable types 2, 11
vowels of 2, 11, 12
Italian children ability to write consonants precedes vowels 95
acquisition of orthography 10–33
developmental trajectories 13–22
emergence of literacy skills in normal 15–17
learn to read rapidly 2, 26
longitudinal studies 17–18, 19
spelling less accurate than reading 2, 25–6
Italy 161, 165
Jaffe-Gur, T. 95
Jakimik, J. 206
Japan 161
Japanese 8–9, 103, 134, 214–34
case particles 215, 223–5
curriculum 217
hiragana 8, 214, 217–27
hononyms in 8, 217
kana orthography 7, 8–9, 214, 217
learning to read and write in 214–34
morality-based rhythm 215, 226–7
structure of orthographies 214–17
syllable types in 215–17, Table 12.1
225–6
use of Chinese characters to distinguish homonyms 8, 214, 217, 230, 231
Japanese children literacy development after learning kana letters 229–30
not taught alphabetic script, poor phoneme deletion ability 182
phases of learning to read 217–27
reading ability compared with American and Taiwanese children 189–90
reading special syllables 222–6
Jarousse, J. P. 64, 119, 121–2
Job, R. 14, 19, 20
Johansson, E. 168
Johnston, R. S. 52, 141
Jorm, A. F. 34
Kahn-Horowitz, J. 98–9
Kaiho, H. 231
Kamii, C. 95
kana letters 7, 8, 214
development of literacy in 229–31
learning to read 217, 219–22 Fig. 12.2–4; 227–8, 232
reading special syllables 222–4
reading ability compared with American and Taiwanese children 189–90
reading special syllables 222–6
kana syllabaries, Japanese, see also hiragana; katakana
kanji (Chinese characters used in Japanese) 8, 214, 217
learning to read and write 230, 231
Karmiloff-Smith, A. 218
karuta (Japanese card game) 229
katakana 214
Katz, L. 21, 90, 104, 134, 138
Ray, J. 204
Kellihier, S. 113
Kessler, B. 146
kindergarten children, level of writing Hebrew 95–6
Kirson, D. 43
Kirdley, C. 136, 137
Kitamura, S. 189–90
Ko, H. 180, 181, 182, 188–9, 192
Kolinsky, R. 21, 29
Korat, O. 91, 93, 94
Index

Kozminsky, E. 100
Kozminsky, L. 100
Kuhara-Kojima, K. 230
Lamm, O. 105
Landier, Karin 2–3, 34–50, 52, 61, 134, 138, 180
Landsmann, L. T. 218
language-specific differences in ability to write vowels 95
and language-universal aspects of Hebrew literacy acquisition 102–3, 107–8
Lapidot, M. 100–1, 103
Large, B. 141
Larsen, J. P. 164
Lautiana, A. 113, 114
Lavagnoli, C. 11
learning disabilities, and literacy acquisition 14–15, 18–20, 28–30
learning disability, see also mental retardation
learning strategies 7, 9
Frith’s 217–18, 219–27
Ledward, A. 119, 121
Lee, C. L. 197
Lee, J. R. 173, 180, 181, 182, 190, 192
Lee, S. 189–90
Lemle, M. 71
Leong, C. K. 182, 184
Lepschy, Giulio 11
Lepschy, Laura 11
Leshem, H. 100, 101, 102
Lesser, R. 204
letter knowledge in Greek children 52–70
and phonemic awareness 58–9
as predictor of reading success 52, 61–2, 67
testing Greek 57–8, 59
letter naming 43, 94
Japanese 219–22
letter orientation task 57–8
letter recognition, slower in Hebrew than English 91
letter–sound correspondences see grapheme–phoneme correspondences
letter–sound instruction 36, 82
Levin, Iris 4, 89–111
lexical analogy models 187
lexical decision tasks 114
Li, H. T. 174
Liberman, I. Y. 20, 21, 51, 103, 105–6, 113, 134, 135–6, 138
Liac, A. 163
Lien, Y. W. 186
Linnákyvä, P. 166
Limouner, R. 134, 180
literacy
cross-national comparisons of adult 169
and cultural differences 169
values attached to 6, 157, 229
see also informal literacy socialisation
literacy acquisition
and cognitive skills 214–34
and instruction method 14
and learning disabilities 14–15, 18–20, 28–31
socio-cultural perspective in Japan 214, 228–32
universal aspects of 9, 107–8
literacy development
and orthographic lexicon 18–20
and phonological awareness 199–201
theories of 72–3
literal world, awareness of the 218–19
logograms, Chinese target in visual matching task 46–7
logographic stage (Frith) 199, 200–1, 217, 219
logographic strategy 56–7
logographic writing systems 134, 173, 197
Lokanathan, K. 205
look-and-say method 185, 197
look-say, ‘Chinese’ word-specific 203
Lucker, G. W. 189–90
Lundberg, Ingrid 6, 52, 72, 134, 157–72
Lundberg, L. 141, 182
Lyytinen, Heikki 161
McBride-Chang, C. 180
McClelland, J. L. 187
McDougall, S. 43
Machado, S. F. 92
Maclean, M. 136, 137, 141, 183
Maggetti, S. 30
Magno-Caldognetto, E. 11
Malay, in Singapore 166
Malay-English-speaking children, in Singapore 8, 198–201
Malaysia 197
Manchurian 177
Mandarin 174, 196
compared with Cantonese 176–7
as a deep logographic script 197
teaching of reading in 177
tones in 174–5
Mandarin-English-speaking children, in Singapore 8, 197, 198–201

Cambridge University Press
0521621844 - Learning to Read and Write: A Cross-Linguistic Perspective
Edited by Margaret Harris and Giyoo Hatano
Index
More information

© Cambridge University Press www.cambridge.org
244 Index

Mann, V. A. 51, 134, 182, 199, 201, 226
Mann-Whitney U test 84
Maraschio, N. 12
Marcel, T. 51
Marsh, G. 72, 75
Marshall, J. C. 15–17, 18, 21, 25, 28, 29, 30, 61, 86, 208
Mason, J. M. 97
Mason, M. 205
Massey, C. 92
Masterson, J. 19, 205
Mathew effect in educational development 167
Mead, F. 145, 226
meaning
morphology and syntax 112–13
and phonological awareness 221
reading for in Japanese 230
Meara, P. 205
Mediterranean countries 168–9
memory
for stories 36
see also short-term memory; visual memory; working memory
mental retardation
in children learning to read kana letters 221
and mastery of reading and writing qua transcoding 28–9, 30–1
metacognitive functioning 104
metalinguistic skills
and acquisition of conditional spelling rules 86–7
and learning to read 21–2, 72–3, 81–5, 201
relevance of phonology in 21–30
see also phonological awareness;
syntactic awareness
Mexico 72
Meyler, A. 97, 104
Mikami, H. 221–2, 223, 231
Min 174, 177
misspelling task 86
Mok, L. W. 201–2
Montagnero, J. 124
Monteiro, A. 75–6, 79, 86
Montessori, Maria 26
‘explosion of writing’ 13–14, 15
Montgomery, D. 51
Moore, B. J. 196
morae 215
phonological awareness of Japanese children 219–22, 226–7
moraic abstraction, Amano’s five-stage development of 221
moraic segmentation 219–21
Morais, J. 21, 29, 51, 103, 137, 183, 199
Morchio, B. 19, 20
Morocco, Berber-speaking children in 166
morpheme completion task 124
morpheme reversal task 124
morphemes
Chinese characters represent as syllables 7, 173, 174
defined 112, 173
different and same spelling problems 112–33
importance in reading development 112–14, 131
see also silent morphemes
‘morpho-phononic’ scripts see alphabetic scripts
morpho-syntactic awareness 4, 5, 63–4, 67
development of 123–30, 131
and morphological spellings 129–30, 131
morpho-syntactic information 71, 78–9, 81, 82, 86
morphological analogy task 64, 66, 67
morphological awareness 5, 66, 105, 114
in Greek children 52–70
in Japanese children 222–6
morphological spelling rules see spelling rules, morphological
morphological strategy of writing 93–4, 130
morphology
link with spelling 4–5, 58, 112–17
and spelling in English 225
syntax and meaning 112–13
and writing 114–17
see also derivational morphology;
inflectional morphology
Morton, J. 18, 113, 199
Moser, E. 40
mother tongue see second language
mothers, ideas about how children learn letters in Japan 228
‘mothers of reading’ see Hebrew, unpointed
MT test 14
Mullennix, J. 42, 142–3
multi-lingualism
with instructional language different from home language 166
in Singapore 196–213
Munck, I. 166
Murray, D. J. 40
Murrel, G. 113
Muter, V. 146
Muto, T. 219, 228

© Cambridge University Press  www.cambridge.org
Index

naming, speed and accuracy in pointed and unpointed Hebrew 97–9
naming tasks, rapid 45
Naslund, J. C. 134
National Language Research Institute (NLRI) 221, 223, 230, 231
national languages 160, 196
Naven, D. 90, 91, 97
Neale, M. D. 202
Neale Analysis of Reading Ability (NARA) 202

nekudot 90

Nesdale, A. 72, 81, 83, 179
Netherlands 161, 165, 169
neuro-psychology 17–18, 22, 28–30, 161
New Zealand 165, 169
Newcombe, F. 18
newspapers, access to daily 169
Ng, S. M. 196
Nicolaou, E. 73
Nie, H. 181, 197
Niemi, Pekka 161
Nomura, Y. 231

non-word reading by dyslexic children 34, 40–1, 46, 190
English and German compared 2, 37–9
in Greek 60–1
Italian children 25–6, 27, 30
as test of alphabetic reading 60–1
non-words
‘Japanese’ 46
reading and spelling 76–80
see also nonsense words; pseudo-words
nonsense word reading
in English, Spanish and French 150–2
in English versus French 147–9
in English versus Greek 149–50
in languages other than English 146–53
in more and less transparent orthographies 152–3
nonsense words
O+P+ word 148–9, 151–2
O+P word 148–9, 151–2
O–P– word 150–2
normal children see children
North Germanic languages 159
Norway 161, 169
reading achievement 165
Norwegian 142, 159
local oral and national language 160
Nunes, Terezinha 4–5, 64, 74–5, 79, 81, 82, 84, 86, 112–33, 187–8, 225
Nunes Carragher, T. 118

oddity task 135, 136, 138
Odegaard, H. 164
official languages, in Singapore 196
Oliveira, M. A. 73
Olofsson, A. 72, 134, 163
Olson, D. K. 146
Olson, R. 34, 190
Omura, A. 97
onset-rhyme awareness 135, 137
in learning to read English 143
and rhyme analogies 145
oral cultures, and reading achievement 168–9
oral language 104
foundations in Singapore 196, 201–2
masters of morphological structures in 95, 96, 99–100
weak skills in bilinguals 201–2
orthographic analogies
definition 144–6
in more transparent orthographies than English 146–7
and rime units in English 144–6
orthographic lexicon
and development of reading and writing skills 18–20
and ‘dual route’ model of acquisition 18–20
orthographic neighbour effects, Chinese–English in Singapore 205
orthographic regularity see transparent orthographies
orthographic representations
development of 144–53
different and phonological awareness 134–56
orthographic stage (Frith) 34, 199, 200, 218
orthographic writing 94–5
orthographies
transitions within and across 105, 108
see also deep orthographies; transparent orthographies
orthography
consistency of and reading instruction 35–6
the nature of and the development of orthographic representation 144–54
see also spelling, writing
Osterberg, T. 160
Otake, T. 226–7
Oura, Y. 227
overgeneralisations 76, 77, 85
Pakir, A. 196
Palácio, M. Gomes 72

}},245
phonematic awareness 51–2, 104
and acquisition of conditional spelling
rules 81–5
advanced in Japanese children 222–6
and age 226
in Brazilian Portuguese 3–4, 71–88
components corresponding to levels of
language analysis 164
continuum from shallow to deep
sensitivity 163–4
development
as a consequence of learning to read
51–2
cross-linguistic studies 5–6, 103, 
138–9
sequence in different linguistic
environments 5–6, 135–9, 153
and different orthographic
representations 6, 134–56
and early reading, Hebrew compared
with English 101–2
explicit see phonemic awareness
implicit 51, 52, 57–8, 59
and learning to read Chinese 7,
179–85
and learning to read Hebrew 100–3
techniques not necessarily
orthographic 20–2, 62
need for instruction in reading to
develop 137, 162
not predictive of spelling 66
as predictor of children’s reading age
52, 67
and reading acquisition 162, 164,
169–70
testing for 57–9
training in bilingual children 203
phonetic compounds, Chinese 175–6, 
185–8, 192
phonetic scripts, auxiliary 7
phonetic spelling, choice of 119
phonetic writing 94, 95
phonics teaching method 2, 3, 36, 48, 
63, 83, 158, 200
Austria 154
Greece 154
‘Phoenician’ rule-based 203
phonographic writing systems 107
phonological analysis 72–3
phonological awareness 51–2, 104
and acquisition of conditional spelling
rules 81–5
advanced in Japanese children 222–6
and age 226
in Brazilian Portuguese 3–4, 71–88
components corresponding to levels of
language analysis 164
continuum from shallow to deep
sensitivity 163–4
development
as a consequence of learning to read
51–2
cross-linguistic studies 5–6, 103, 
138–9
sequence in different linguistic
environments 5–6, 135–9, 153
and different orthographic
representations 6, 134–56
and early reading, Hebrew compared
with English 101–2
explicit see phonemic awareness
implicit 51, 52, 57–8, 59
and learning to read Chinese 7,
179–85
and learning to read Hebrew 100–3
techniques not necessarily
orthographic 20–2, 62
need for instruction in reading to
develop 137, 162
not predictive of spelling 66
as predictor of children’s reading age
52, 67
and reading acquisition 162, 164,
169–70
testing for 57–9
training in bilingual children 203
phonetic compounds, Chinese 175–6, 
185–8, 192
phonetic scripts, auxiliary 7
phonetic spelling, choice of 119
phonetic writing 94, 95
phonics teaching method 2, 3, 36, 48, 
63, 83, 158, 200
Austria 154
Greece 154
‘Phoenician’ rule-based 203
phonographic writing systems 107
phonological analysis 72–3
phonological awareness 51–2, 104
and acquisition of conditional spelling
rules 81–5
advanced in Japanese children 222–6
and age 226
in Brazilian Portuguese 3–4, 71–88
components corresponding to levels of
language analysis 164
continuum from shallow to deep
sensitivity 163–4
development
as a consequence of learning to read
51–2
cross-linguistic studies 5–6, 103, 
138–9
sequence in different linguistic
environments 5–6, 135–9, 153
and different orthographic
representations 6, 134–56
and early reading, Hebrew compared
with English 101–2
explicit see phonemic awareness
implicit 51, 52, 57–8, 59
and learning to read Chinese 7,
179–85
and learning to read Hebrew 100–3
techniques not necessarily
orthographic 20–2, 62
need for instruction in reading to
develop 137, 162
not predictive of spelling 66
as predictor of children’s reading age
52, 67
and reading acquisition 162, 164,
169–70
testing for 57–9
training in bilingual children 203
phonetic compounds, Chinese 175–6, 
185–8, 192
phonetic scripts, auxiliary 7
phonetic spelling, choice of 119
phonetic writing 94, 95
phonics teaching method 2, 3, 36, 48, 
63, 83, 158, 200
Austria 154
Greece 154
‘Phoenician’ rule-based 203
phonographic writing systems 107
phonological analysis 72–3
phonological awareness 51–2, 104
and acquisition of conditional spelling
rules 81–5
advanced in Japanese children 222–6
and age 226
in Brazilian Portuguese 3–4, 71–88
components corresponding to levels of
language analysis 164
continuum from shallow to deep
sensitivity 163–4
development
as a consequence of learning to read
51–2
cross-linguistic studies 5–6, 103, 
138–9
sequence in different linguistic
environments 5–6, 135–9, 153
and different orthographic
representations 6, 134–56
and early reading, Hebrew compared
with English 101–2
explicit see phonemic awareness
implicit 51, 52, 57–8, 59
and learning to read Chinese 7,
179–85
and learning to read Hebrew 100–3
techniques not necessarily
orthographic 20–2, 62
need for instruction in reading to
develop 137, 162
not predictive of spelling 66
as predictor of children’s reading age
52, 67
and reading acquisition 162, 164,
169–70
testing for 57–9
training in bilingual children 203
phonetic compounds, Chinese 175–6, 
185–8, 192
phonetic scripts, auxiliary 7
phonetic spelling, choice of 119
phonetic writing 94, 95
phonics teaching method 2, 3, 36, 48, 
63, 83, 158, 200
Austria 154
Greece 154
‘Phoenician’ rule-based 203
phonological memory 104
phonological processes, and learning to read in Scandinavia 161–4
phonological processing impairment, and reading difficulties cross-linguistic correlation 190–2
phonological skills 105
phonological strategy of writing 92, 93, 94
phonological tapping task 227
phonological training 53
phonology of different languages and metalinguistic skills 21–30
a universal feature of early reading and writing 107
phonology assembly, two-cycle model 42–3
Piaget, Jean 14, 72, 124, 162
Pinker, S. 14
Pinyin 7, 176, 177, 178, 192
effect on reading of English 184–5
role in Chinese literacy 181–2
and Zhu-Yin-Fu-Hao 177–9
pitch patterns see tones
Poland 169
Pontecorvo, C. 15, 95
Pontecorvo, M. 15
Poon, K.-L. K. 198, 204, 209
Poritsky, S. 189
Porpodas, C. 54, 62, 63, 134, 147, 149
Portuguese 3–4, 71–88, 142
grapheme–phoneme correspondences, ambiguous mapping in 3, 71, 118
learning to read and spell in Brazilian 3–4, 71–88
morphological spelling rules 3–4, 115
orthography regular 3, 71
Pratt, C. 83
pre-reading phase
experience at home and in nursery school 9
pretend reading 218–19
pre-school children
correlations of writing with literacy in 95–6
emergence of literacy skills in 14, 15
Hebrew writing 91–6
learning Japanese 218–19, 228–9, 231
levels of writing competence 94–5
phonological awareness and later reading ability 180
reading level and subsequent performance 180
Scandinavian 161–4
prerequisites for learning to read 7
reading acquisition compared with writing 13–14, 22–7
acquisition and phonological coding 34–5
acquisition and regular grapheme–phoneme correspondences 22, 97
cultural status of 6, 228–9
developmental asymmetry with spelling 7, 86
multi-level model of processing (Taft) 113–14
see also adult reading
reading ability
American children compared with Japanese and Taiwanese children 189–90
assessment in different grades 14
good vs. poor in Hong Kong and Taiwan 190
reading achievement, variation in 157, 164–7
factors underlying 165–70
phonological tapping task 227
phonological training 53
phonology assembly, two-cycle model 42–3
Piaget, Jean 14, 72, 124, 162
Pinker, S. 14
Pinyin 7, 176, 177, 178, 192
effect on reading of English 184–5
role in Chinese literacy 181–2
and Zhu-Yin-Fu-Hao 177–9
pitch patterns see tones
Poland 169
Pontecorvo, C. 15, 95
Pontecorvo, M. 15
Poon, K.-L. K. 198, 204, 209
Poritsky, S. 189
Porpodas, C. 54, 62, 63, 134, 147, 149
Portuguese 3–4, 71–88, 142
grapheme–phoneme correspondences, ambiguous mapping in 3, 71, 118
learning to read and spell in Brazilian 3–4, 71–88
morphological spelling rules 3–4, 115
orthography regular 3, 71
Pratt, C. 83
pre-reading phase
experience at home and in nursery school 9
pretend reading 218–19
pre-school children
correlations of writing with literacy in 95–6
emergence of literacy skills in 14, 15
Hebrew writing 91–6
learning Japanese 218–19, 228–9, 231
levels of writing competence 94–5
phonological awareness and later reading ability 180
reading level and subsequent performance 180
Scandinavian 161–4
prerequisites for learning to read 7
reading acquisition compared with writing 13–14, 22–7
acquisition and phonological coding 34–5
acquisition and regular grapheme–phoneme correspondences 22, 97
cultural status of 6, 228–9
developmental asymmetry with spelling 7, 86
multi-level model of processing (Taft) 113–14
see also adult reading
reading ability
American children compared with Japanese and Taiwanese children 189–90
assessment in different grades 14
good vs. poor in Hong Kong and Taiwan 190
reading achievement, variation in 157, 164–7
factors underlying 165–70
reading age, IQ and phonemic awareness as predictors of 52, 67
reading aloud, versus silent reading comprehension 98–9
reading comprehension
effect of automatisation of word recognition on 230
silent 98–9
reading development in English, Frith’s three-phase theory 217–18, 216–27
reading difficulties
in bilingual bicscriptal children 196, 207–9
Chinese children compared with English children 189–91
and phonological processing impairment, cross-linguistic correlation 190–1
reading disability
morphological difficulties in Hebrew 105
prevention by pre-school programme 163
Scandinavian research on 161
script transition difficulties in Hebrew 105–6
reading habits outside school 166, 167, 169
reading instruction
and orthography 35–6
Scandinavia 158–9
reading refusals 38, 208
reading research 161
reading strategies
at initial and later stages 7
letter-by-letter 25
phonetic 25
reductions, phonotactic 160–1, 170
referential strategy of writing 92–3, 94
Rego, Lucia Lins Browne 3–4, 52, 71–88
rhyme, mappings to phonology in English 142–4, 146
rhyme awareness 52, 62, 163–4
in Chinese compared with British children 183
and reading in English 6, 140–1
and reading in other orthographies 141–2
rhyme detection, auditory 179
and single-word reading, Hong Kong children 180
rhyme judgement task 52, 67, 185
rhyme recognition 28, 164
rhyme units in English, and orthographic analogies 144–6
importance in learning to read in less transparent orthographies 154
rhyming ability, in non-reading children 163–4
Richmond-Welty, E. D. 42, 142–3
Rickard Liow, Susan 7–8, 196–213
rime see rhyme
Robbins, C. 146
Roman orthography, early knowledge of Greek and 55–9
Romani, C. 113, 114
Rosén, M. 166
Rossini, F. 21, 29, 61
rote learning 53–4, 67, 85, 87, 178, 191, 207
Rothschild-Yakar, L. 97, 98, 99, 100
Routh, D. K. 51
Rozin, P. 189
Rubin, H. 51
Rudel, R. 43
Ryan, E. B. 81
Salzburger Lese- und Rechtschreibtest 40
same/different judgement task 135, 136–7, 139
Sartori, G. 14, 19, 20
Scandinavia
education in 157–8
learning to read in 157–72
methods of first reading instruction 158–9
research on relationship between phonological processes and learning to read 161–4
see also Denmark; Finland; Norway; Sweden
Scandinavian languages 6, 51, 157–72
orthographies 6, 158, 159–61
rules for doubling consonants 160
Schneider, W. 52, 61, 134, 138
Schonell Graded Word Reading and Spelling Test 198
school children, learning to read and write Hebrew 96–103
school resources, factors in reading achievement 165
schooling effect, and development of phonological awareness 103
schools
private Portuguese 83
private and public Portuguese, and sequence of acquisition of conditional spelling rules 79
support for reading at 227–9
scribbles 94
scripts
characteristics at phonological, syllabic and morphological levels 9
compatibility 196–201
deep-to-shallow transitions within and across orthographies 108
incompatibility of 196, 209
learning second language 1, 206
similarities across 1, 8
second language 196, 206; see also strategy transfer L1 to L2
segmentation 64; see also phoneme segmentation task; speech segmentation units; syllable segmentation task
Seidenberg, M. 22
self-instruction 167, 178
self-report on language skills 198
semantic skills 105
Semitic languages 103
morphology, root-plus-pattern system 89–91, 107
scripts 91
sentence anagram task 83
sentence analogy 124–7, 128–30
sentence completion task 124
Seymour, P. H. K. 20, 200, 202, 207
Dual Foundation theory of reading development 200–1
Shankweiler, D. P. 21, 103, 134, 135–6, 138
Shany, M. 96
Share, David 4, 34, 89–111, 167, 178, 185, 192
Shatil, E. 94, 95–6, 97, 101, 104–5, 106
Shibasaki, M. 218
Shimamura, N. 221–2, 223, 231
Shimron, J. 90, 97, 99
Shimon, Y. 90
shiritori (Japanese word game) 227, 228–9
short-term memory (STM), visual and verbal, in early reading 104
Siegel, L. 96, 97, 176, 180, 190, 192
silent morphemes, spelling 115–16, 119, 121–2
silent reading comprehension 98–9
Singapore 7–8, 161, 196–213
bilingual policy 196
ethnic composition 196
oral language foundations 196, 201–2
school curriculum 198, 200
spoken and written languages in 196–201
Singaporean children
phonological awareness 196, 202–4
reading achievement in English 166
reading difficulties 196, 207–9
reading skill development in bilingual 196–213
visual analytic skills 196, 205–7
Singaporean Colloquial Mandarin (SCM) 197
Sivan, T. 90
Slovakia 169
Snowling, M. J. 34, 51, 146, 190, 191
So, D. 176, 180, 190, 192
Soares, M. B. 73
socio-cultural factors, in learning to read and spell 6, 9, 157, 158, 168–9, 227–9
socio-cultural perspective, on literacy acquisition in Japan 214, 228–32
socio-economic factors and levels of writing competence 95, 96
and variance in reading achievement 157, 165, 167
Sotsky, R. 189
‘sounding out’ see phonics teaching method
Spain 161, 165
Spanish 51, 95, 103, 134, 147
nonsense word reading and English and French 150–2
transparent orthography 150
special education, phonological awareness training in pre-school 163
speech segmentation units 226–7
speed of decoding 96–7
speed of learning to read 6, 9
speed of reading, and accuracy of reading 15–17, 19
spellers, good and poor, and knowledge of rules 86
spelling acquisition in Greek 53–4, 63–7
alphabetic and orthographic testing 60–1
developmental asymmetry with reading 7, 86
in Hebrew 5, 90, 97
links with morphology 4–5, 67, 112–17
number of possible spellings for a given pronunciation 22
same problems and different morphemes 112–33
silent morphemes 115–16, 119
and syntax 117–30
see also orthography; writing
<table>
<thead>
<tr>
<th>250</th>
<th>Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>spelling patterns</td>
<td>deciding between two or more acceptable 114–15, 118–20 relationship between different and morpho-syntactic awareness 124–7, 129–30 relationship between different morphological 123–4, 129–30 for rhymes in different languages 147 spontaneous focus on in English children 144–6</td>
</tr>
<tr>
<td>spelling rules</td>
<td>conditional acquisition of 71, 73–85, 86 levels of performance in 75–6 two types in Portuguese 77–9 morphological development consistent across scripts 5 in English, French and Greek 5 in Greek 5, 53–4, 67 in Portuguese 3–4, 77–9</td>
</tr>
</tbody>
</table>

Index

Tam, L.-J. M.-M. 206
Tamil, in Singapore 166, 196
tapping task 135–6, 138, 227
Tzaban, R. 187
Taylor, I. 231
Taylor, M. 231
Taylor, S. 146
teaching see instruction
Teale, W. H. 218
Teberosky, A. 15, 72, 86, 93, 95, 103
Temple, C. M. 208
Thevenin, M. G. 64, 119, 121–2
Thorstad, G. 54, 97
Tng Siok Keng 197, 198, 201–2, 203, 204, 207
Tela, G. 21, 134, 138
Tolchinsky, L. 93
Tolchinsky-Landsmann, L. 92, 93
tones, in Chinese 174–5
Torgesen, J. K. 51, 180, 203
Tornus, M. 163
Toterieu, C. 64, 119, 121–2
transcoding skills
evolution of 17–18
and mental retardation 28–9
transparent orthographies 10
and early reading acquisition 165
tone sense word reading in more and
less 152–3
orthographic analogies in 146–7
and phonemic awareness 142, 143
and phonological awareness 6, 52, 134
and reading/spelling discrepancy in
165
Treiman, R. 42, 102, 119, 120, 136–7, 142–3, 146, 149, 183
Tressoldi, P. E. 14, 21
Tubul, G. 100–1
Tunmer, W. 72, 81, 82, 83, 146, 179
Tzeng, Ovid 7, 173–95
Uchida, N. 97
Uméa group 161
umlaut 35
underarticulation 159, 170
Underwood, G. 201
universal aspects of acquiring literacy 9,
107–8, 112–31
upper and lower case in Greek and
Roman 55–6
USA 169; see also American children
Vaggio, K. 11
Van Orden, G. 43
Venenzky, R. L. 35, 97
Venezuela 165, 169
Villani, D. 21
visual analytic skills
and learning to read Chinese 7, 190–1, 192
Singaporean children 196, 205–7
visual and auditory word-memory task
230
visual lexicon, and phonological lexicon
18–20
visual matching task 46–7
visual memory
in Chinese 7, 190–1, 192
short-term 104
and spelling rules 76
visual orthographic processing 104
visual processing competencies, may be
language-specific 108
visual readiness for learning 7
visual skills, in learning to read Chinese
191
visuo-spatial factors, predictors of early
reading in Hebrew 104–5, 108
Vocabolario degli Accademici della Crusca
(1612) 12
vocabulary, and level of writing 95
vocabulary effects, and phonological
awareness 179–80, 181
vocalisation latencies, differences in
reading hiragana and kanji 230
vowel diacritics, in Hebrew 4, 90, 97–9,
107–8
vowel substitution task 57–8, 59
Wade-Woolley, L. 96
Wagner, D. A. 166
Wagner, R. K. 51, 180, 203
Wall, S. 72, 134, 163
Wang, W. 179, 183–4, 185
Waters, G. S. 22
Welch, V. 72, 75
welfare, factors in reading achievement
165
Wheelwright, S. 147, 149
whole language approach 82, 85, 154, 159
whole word recognition 36, 200, 203
Wiggen, G. 160
Wilce, L. S. 51
Wimmer, Hennz 2–3, 16, 34–50, 52, 55,
60, 61, 62, 97, 134, 138, 141,
142, 180, 200
WISC verbal sub-test on memory for
digits 83
WISC-R block design test 104
Wise, B. W. 146
Wohl, A. 100–1
Wong, M. Y. 201
word analogy 124–7, 128–30
word categorisation task 83, 85
word identification, strategies for 94
word–non-word reading task 40
word preforms 36
word recognition 34, 40
  automation and effect on reading comprehension 230
  written and spoken in second language learning 206–7
word segmentation task, vocal-motor in Japanese 227
working memory, and regularity of orthography 3, 43–4
working memory overload 85
in dyslexic children reading English 43–4
writing
  acquisition compared with reading 22–7
  correlations with literacy in kindergarten 95–6
  direction of 92
  ‘explosion’ of 13–14, 15
  of Hebrew by pre-school children 91–6
  and morphology 114–17
  precedes reading hypothesis 13–14, 15, 22
  status of 6
  see also orthography; spelling
  writing systems
  characteristics of 1
  see also alphabetic writing systems; logographic writing systems; syllabic writing systems
written language
  different from spoken language 176–7
  gap between spoken and 160–1, 170
written word recognition, in second language learning 206
Wu 174
Xiang 174
Yopp, H. K. 101
Yuen, J. C.-K. 186, 187, 191, 192, 204
Zhang, H. R. 190–1
Zhang, Y. 181, 197
Zhou, Y. G. 186
Zhu-Yin-Fu-Hao 177, 192
described 178
and Pinyin 177–9
role in development of Chinese literacy 181, 182
Zielinski, S. 206
Zucchermaglio, C. 15, 95
Zukowski, A. 136–7