The development of initial reading in a bilingual child

A great deal has been written on the subject of bilingualism and many studies of the speech acquisition of bilingual children have been made, but literature dealing with the acquisition of reading skills by individual children is extremely sparse. Söderbergh (1971) wrote an interesting account of how her daughter learnt to read Swedish at the age of about two-and-a-half years following the method set forward by Doman (1964) in his book 'How to Teach your Baby to Read'. He proposed that all the words from a story should be written in really large letters, later smaller letters, on flash cards and the book only introduced when the child knows all the words. Söderbergh considers the use of such large letters as being rather like the way one speaks more clearly to a small child.

Studies of bilingual reading mainly present the situation in schools attended by bilingual children. American studies by Andersson (1976), Cohen (1979) and Kaminsky (1976) dealt with bilinguals (mainly Hispanics) who are put at a disadvantage on starting school because they have to learn to read, not in their dominant language first, but in English. In several other studies the acquisition of biliteracy was explored. Hanson (1980) investigated the process of learning to read of three Spanish-English speaking children from the age of two through the third grade at primary school. All children learned to break the code in the two languages with minimal interference. Deemer (1978) tested groups of Spanish-English bilinguals to measure their reading ability and to look for evidence of transfer. Her main conclusion was that 'reading for meaning is a skill which is non-language-specific and is thus transferable to a foreign language learned. As was expected, the correlation between first and second language reading skills becomes stronger as the student gains proficiency in the second language'. In other words she makes a case for positive transfer, as opposed to the findings of Cowan and Sarmed (1976) who studied bilingual children's performance in reading English and Persian and found that their achievements were below those of the monolingual English and Persian groups they observed. Kupinsky (1983) reported a study of kindergarten classes with Hebrew-English bilinguals who received simultaneous reading instruction in both languages. She found that all children successfully acquired reading skills in the two languages. Moreover, the reading skills in the two languages turned out to be related. Finally, in some studies the initial biliteracy outcomes of bilingual children in school have been studied. Mace-Matluck, Hoover and Calfee (1984)

carried out a longitudinal study on the processes of learning to read in two languages by Spanish-English speaking children at primary school in the United States. There was evidence for interdependency taking place in the acquisition of biliteracy. Verhoeven (1991) compared the literacy outcomes of Turkish children in the Netherlands in L2 submersion classes vs. transitional classes. He found that a transitional literacy approach may have beneficial effects. A strong emphasis on instruction in L1 does lead to better literacy results in L1 with no retardation of literacy results in L2. Moreover, the transitional approach tended to develop a more positive orientation toward literacy in both L1 and L2. Verhoeven also found empirical evidence for the interdependency hypothesis in biliteracy learning.

The present chapter is an outline of the study made by the author of her son's early reading acquisition in English and Hungarian. Aspects of the various processes he used in reading are covered. My findings back up the implications which Goodman (1989) and Goodman and Goodman (1978) drew from their study of the reading process from a psycholinguistic point of view. Their main claims are that it will be easier for someone who can already read to learn to read a second language and that it will be easier for someone to learn to read a language he already speaks. Particular mention is made of the kinds of positive and negative transfer the author was aware of in both languages and their importance in the acquisition of reading skills. Finally, there are some remarks on the wider bearing of this study on the teaching of reading and of languages in general.

The study of Mark's reading

As a practising linguist I fully appreciate the value of fluency in several languages. Although I was born and brought up in Britain and the languages I had studied were French and German, I ended up living in Hungary. My husband, a Hungarian teacher of English, shared my views on multilingualism and so, when our first child, Mark, was born in 1976 we deliberately set out to make him bilingual. Mark's home environment was kept exclusively English-speaking and the first language he learnt was English. Contact with Hungarian was rather limited until he started nursery school at the age of three but he made rapid progress from that time. By the time I started to teach Mark to read (about 22 months later) he was a natural, well-balanced bilingual child with the fluency and range of vocabulary of an intelligent 5-year-old from an above average socio-economic background.

Mark had expressed an interest in reading and, since I agree with Andersson (1976: 73) who said, with reference to bilinguals in the United States, 'that a non-English-speaking child has the right to learn to read his or her mother tongue and then has the duty to learn to read English', I wanted to help Mark to learn to read in English. The teaching of Hungarian reading would in any case take place at school.

Although some children do learn to read without any help from their elders, I thought it better to teach Mark to read. Living in Hungary he was not likely to

'pick up' the ability to read English! Finally, I decided to study how Mark was to acquire his initial reading skills, first in English alone and then in the two languages in an attempt to see how they affected each other in the written form. This study was presented as a Ph.D. Thesis which I defended in 1984 and which was later published (Wodala, 1985).

I started teaching Mark to read on 29th July, 1981, when he was 5 years 2 months 18 days (5;2,18), 13 months before the start of school. The choice of starting date was influenced by the fact that English is more difficult to read because of its peculiar spelling and by the concept of reading readiness. Mark had a good command of English, he was interested in the printed word and his memory was retentive. The method I used was basically Look-and-Say where whole words are learnt and I introduced very little deliberate phonic practice. The main books read during the period of study, including the period between 2nd September and 18th December, 1982, after Mark had started school, were Books 1, 2 and 3 in the Ladybird Sunstart Reading Scheme and Books 2, 3 and 4 in the b series of the Ladybird Key Words Series, all by Murray (1969).

Altogether 300 English vocabulary items occurred in Mark's reading material, the overwhelming majority of which were nouns (128) and verbs (64). Furthermore, 22 prepositions and/or adverbial particles, 3 forms of the articles, 5 interrogatives, 4 conjunctions, 2 demonstratives and 4 interjections were introduced. With the exception of the articles and the conjunction 'and', Mark learnt nouns (particularly proper nouns with their capital letters) and verbs more quickly than function words even though some of the latter are shorter.

Pre-school reading in English

In general Mark's progress in reading English prior to starting school was slow. His environment contained very little in English outwith the reading scheme to attract his eye. He had no feeling of competition with his peer group, one of the factors encouraging reading at school. Our reading sessions were short and usually took place after 4 p.m. after a full day at nursery school. While Mark was still reading relatively little at each session, I relied entirely on my own notes made during or immediately after each reading session in order to collect data. Later I made audio recordings as well of some reading sessions which were useful also in monitoring Mark's speed of reading and gradual mastery of phrasing and intonation.

Mark's way of reading during the first eight months (when Mark's age was 5;2,18 to 5;10,20) was typical of any child learning to read using a Look-and-Say method, which encourages the child to look for a distinctive feature and then guess. Consequently, Mark frequently substituted for a printed word another word containing the same letter or letters, e.g., *came* for 'can', *boy* for 'big' and vice versa where there may have been a confusion of 'o' and 'a', 'y' and 'g'. In these misreadings the initial letter was common far more frequently than the final letter: the ratio was 6:1.

The initial letter is all-important for the child at this stage and the fact that confusions often involved words of different lengths indicates that the length of a word is of less importance in a child's eye than an adult, used to reading, might think. Söderbergh (1971) also found that the length of the written word and the word it was supposed to be frequently did not correspond. In late November, 1981, Mark remarked that 'fish' and 'for' looked similar. There is no question here of similar length or overall shape, so he must have based his remark solely on the common initial letter 'f'.

At this stage Mark made 38 unaided successful first readings of words as opposed to only 1 unsuccessful first reading – in some cases he was helped by the picture or he extrapolated from a previously read form of the word. However, successful first readings occurring at a rate of about 5 a month and a total of 1 unsuccessful first reading in 8 months only underline Mark's lack of confidence in reading and his unwillingness to try unless he was sure that he was right. At the same time he appeared to be aware that what he read in his book should make sense: his substitution of *ladies* for 'women' makes perfect grammatical and semantic sense.

Eight months after he had started reading, Mark read 'please' as [p#l#ɛ#a], I supplied the correct phoneme for the digraph and Mark completed the word, adding a query about the mute 'e'. Thus he had spontaneously introduced analysis as a form of working out how to read words. This seemed an important milestone in his progress and led me to divide his pre-school reading into two sections at this point.

During the next five months (when Mark's age was 5;10,21 to 6;3,21) many of the tendencies already mentioned continued. It was obvious that to some extent Mark was still looking for a distinctive feature and guessing. This feature was usually the initial letter, e.g., he read *boat* for 'but', but not always: he read *kite* for 'asks'. At this stage of reading there were more confusions of letters so probably Mark was beginning to consider individual letters in his segmentation, but he did not always look at them with close enough attention. Confusions were most often of letters with a round body, e.g., 'a' and 'o', or a round body and a tail, e.g., 'b' and 'd'.

Mark obviously now considered analysis a good way of decoding new or forgotten words. His analysis usually started with the first letter and more often than not he scanned from left to right. Sometimes he completed the word immediately, at other times he failed to do so. When he continued to analyse sometimes he could re-synthesise the word from the elements, but in many cases he was unable to modify the elements he had read out to make the word he knew orally. Compared with the first eight months of reading the number of misreadings rose considerably indicating that Mark had more courage to try to read words even at the risk of being wrong. It also reflects the fact that he was relying more on his analysis in reading which was still far from perfect.

Clark and Clark (1977) described how listeners use various strategies to make speech intelligible, in other words, when they hear a particular 'cue' word they 'expect' a certain grammatical structure to follow. Some of Mark's misreadings indicate that he was using such strategies to interpret the written text. In the senten-

ce 'They find that one letter is from an old man who is at sea on his boat' he misread the last clause as *who is doing....* Although the present continuous had not been used in his reading material at that point, obviously he commonly applied it in speech and therefore assumed that 'is' was the first element of the present continuous.

By the end of 13 months of reading practice in English, Mark had read 5 books from the selected reading material and attained a certain level of competence, although his progress was slower than would be expected of a child of his socio-economic level in Britain. He was displaying various techniques, notably analysis, to assist with recognising or de-coding words in a written text. Eleven of the words he had read showed some Hungarian influence and eight of these reflected mistakes in pronunciation such as also occurred in his speech at that time.

Mark starts school

Mark started school at the age of 6;3,22. During the first term at school (a period of less than 4 months, when Mark was aged 6;7,7) one more book from the Key Word Series was read and an additional book from the Cat in the Hat Series – Dr. Seuss's Hop on Pop (1963). It was only at this stage that I introduced writing, using Workbook 2 of the Keyword Series and Workbooks 1 and 2 of the Sunstart Series. I do not think that their use had much influence on Mark's reading progress at this stage. Introducing them sooner, however, might have speeded up his progress in the earlier stages. In school Hungarian reading was taught using the books Olvasni tanulok (I learn to read) and Irni tanulok (I learn to write) by Romankovics, Tóth and Meixner (1981). This reading method uses global reading (Look-and-Say) initially but phonic practice is introduced quickly and intensively.

The types of mistakes Mark made in his English reading showed little change, except where influence from Hungarian could be observed. Where he misread the written word as another word containing the same letter or letters the letter overlap improved, so it was not enough for the first letter only to be the same: Mark considered other letters, too, thus he read *them* for 'then' and *bell* for 'ball'.

In general Mark's English reading improved. He made 82 unaided successful first readings (although this total is inflated by 18 words which he probably remembered from having Hop on Pop by Dr. Seuss (1963) read to him on previous occasions), while unaided unsuccessful first readings numbered only 25, a figure boosted by 12 attempts at analysis which failed. Grammatically unacceptable misreadings continued to occur at a rate of about half of those which were grammatically acceptable. Failed analyses accounted for more than half of the unacceptable misreadings, indicating that Mark was beginning to rely more heavily on this method of decoding which was actively encouraged in Hungarian reading.

At the same time there was a drop in the overall number of instances of analytical reading recorded. Very likely Mark's analysis was internalised: he no longer sounded out what he read, but analysed silently and read out only his final version.

Kaminsky (1976: 158) describes how 'in the early stages of reading, children may recode graphic sequences into aural input, from which they derive meaning. At a point when he achieves relative fluency in reading, the reader probably collapses the process, simultaneously supplying the aural input with the recoding of the graphic unit. Compression of these processes takes place at the most efficient level of fluency, where the reader decodes meaning directly from the graphic sequences.'

Confusions of letters with a round body decreased, confusions of letters with a round body and a tail disappeared or decreased, except in the case of 'g' and 'y' which may have been influenced by Mark's confusion in Hungarian reading of 'g' and 'gy'. He also confused capital 'I' with small case 'l' after this confusion had arisen in Hungarian.

During Mark's first term at school six times as many instances of direct Hungarian interference in individual words in English were observed as in the previous five months. To begin with they still reflected mistakes in pronunciation which occurred in his speech but, mainly from October on, when Hungarian reading had become established, interference could be found in words which previously had been read quite correctly. Here are some examples: he read 'all' as [a:l] and possibly confused it with the Hungarian verb 'àll' (stand) which had occurred a month previously in his Hungarian reading material. For 'fun' he read [fun] after the introduction of the Hungarian letters 'u' and 'ù', for 'keep' he read [kɛp] and for 'her [her] after the introduction of the Hungarian letters 'e' and 'é' had been practised intensively, 'Jim' was read as [jim] and even when I corrected the 'j' he retained the Hungarian phoneme (i), [d im].

Hungarian influence could be noticed when he tried to read new words, too. Although Mark sometimes mispronounced 'w' in speech, his reading of 'new' as [nav] and insisting that [v] should be added to my correction to make [njuv] indicates that he was influenced by the printed letter which occurs only in loan words in Hungarian, notably his own surname, and is pronounced [v] as is the letter 'v'.

The Hungarian letter 'c' is pronounced [ts] and an additional confusion for Mark was the variation between [s] and [k] for English 'c'. For 'cakes' he suggested [tʃ k] and refused to accept that the word began with (k). For 'Police' he read [p ltsɛ] and for 'cats' [tsæt], all after the Hungarian letter 'c' had been introduced. The Hungarian letter 's' is pronounced [ʃ] and Mark himself observed the difference with English: in the word 'star' he said that 's' is *like [ʃ] in Hungarian.* He read 'us' as [uʃ] and 'só' as [ʃo], possibly further confused by the Hungarian word 'só' (salt). Mark had difficulty with the English digraph 'sh' sometimes confusing it with 'th'. Towards the end of this period he read 'shop' as [ʃh p] and 'shops' as [ʃh pʃ], then overcorrected to [s]. Although he was more familiar with the English digraph 'th', on the day that the letter 't' was practised in school Mark read 'then' correctly, afterwards changing it to [tɛn] and refusing to accept my correction. He even used the value of a Hungarian doubled consonant when he read 'we'll' as [wil:].

Many of these rather striking misreadings were corrected by Mark himself, either after I reminded him he was reading English or spontaneously, and at the end of the

period of close observation of Mark's reading they were on the decline and soon afterwards disappeared. Besides an increasing monitoring of the reading process, the exactness of Mark's reading was improving as was his visual perception of the words themselves. This is shown by the rising letter overlap between the actual and the supposed words. Because of the intensive letter-phoneme correspondence practised in Hungarian Mark was paying closer attention to the letters which made up the words instead of just 'guessing'. Another indication of his progress in reading was the gradual increase in tempo and the improvement in intonation.

Reading in Hungarian

Mark's Hungarian reading was carried out in very different circumstances and with a different method from his English reading. He was being taught in a class of 34 children, all of whom were over the age of 6. Thirteen of them had already had their 7th birthday by mid-December, 1982, which put Mark among the younger children. Three of the children could read Hungarian fluently on starting school.

The reading scheme by Romankovics, Tóth and Meixner (1981) is a decidedly phonic method, using elements of Look-and-Say only in the initial stages. Each letter or digraph is practised as it is introduced in four ways: practice in pronouncing correctly and clearly the phoneme it represents, recognising the phoneme it represents, recognising the letter in print (both small case and capital forms) and writing the letter, using the cursive form almost from the outset.

Children are actively encouraged to analyse words: lists of three or four words appear in which the child has to indicate the common element. This also meant that Mark read a large number of Hungarian lexical items in isolation, whereas in English almost all of the words read were contextualized. The number of lexical items read in less than four months of school was over 1200, almost six times as many as the English words read in 17 months. As in English most of the words introduced were content words (667 nouns, including 92 proper nouns, 275 verbs and 173 adjectives and adverbs) and, since Hungarian is a synthetic language, the number of function words amounted to only about one-twelfth of the total.

Most of Mark's Hungarian reading took place in school, but for the purposes of the study I asked Mark to read pages from his reading book that he had not yet read in school and from two supplementary books written for children using a different reading scheme called A Maci olvas (Teddy reads) by Sahin-Tóth and Ligeti (1980). The books, Piroska és a farkas (Little Red Riding Hood) and Hüvelyk Matyi (Tom Thumb), adaptations by Sahin-Tóth and Ligeti (1981a; 1981b) of well-known stories, were of a similar standard to his school book. As with English reading I made notes on the reading sessions I held with Mark and asked my husband to make audio recordings all in Hungarian of Mark reading which I could then play back.

Mark's Hungarian reading followed roughly the same pattern as his English reading: firstly a global stage where he looked for a distinctive feature and guessed,

e.g., he read 'ùjsàg' (newspaper) as *juhàsz* (shepherd); a second stage where analysis played a part, but was not perfect, and a third stage where Mark's reading was much more accurate. He reached roughly the same standard in Hungarian reading in about one-fifth of the time. His misreadings were more often grammatically acceptable than otherwise and he misread words as others which contained the same letters, but the letter overlap was higher than in English.

Confusions of letters rarely involved those which he had formerly confused in English reading. Hungarian uses a variety of diacritic marks on the vowels to indicate quality and length and these caused some problems, as well as some of the Hungarian digraphs. He confused 'é' and 'ö' when he said **körd* (* signifies a non-existant word) for 'kérdezte' (he asked), although when he read 'gyenge' (weak) as [œngɛ] he may merely have been pronouncing it according to the dialect used in his home town. He confused the digraph 'gy' with 'g': for 'gonosz' (evil) he read [n s] then *gonosz* correctly. He divided the digraph 'sz' into two separate phonemes when he read 'szólt' (she said) as [soz]. He also confused small case 'i' and 'í' and capital 'I' with small case 'l', this last mainly because the same symbol was used for both in his reading books.

Naturally there were plenty of examples of analytical reading and the fact that analysis had already become established in English reading probably helped Mark. Of course it is fairly easy to reassemble a word such as 'cimbalom' (the musical instrument) from the elements *cim-ba-lom.* Mark's analysis was logical from about the end of October, beginning with the first sound (or sounds) or reading syllable by syllable and leading to the whole word with little help from me. Where he divided a word his division conformed with Hungarian rules for word division: he read first the prefix *be* (in) then the whole word *beugrott* (he jumped in). Of course Hungarian children acquire a grasp of the grammatical function of the various morphemes as their speech develops so recognising these different elements in writing is an extension of this skill. There were exceptions in Mark's reading, e.g., for the compound word 'diótortàt' (walnut cake) Mark began with *diót,* but perhaps he was putting the accusative marker '-t', which occurs at the end of the word, on to the first syllable.

Each Hungarian letter or digraph always corresponds to the same phoneme, except in cases where assimilation occurs. Lotz (1972) described this phenomenon very well: briefly it is a switch in the voicing of an element to conform with the voicing of the following morpheme (a stop, affricate or fricative) and a modification of (n) to (m) before (p), (b), (f) and (v). Although Hungarian children apply these modifications naturally in speech, when confronted with reading and they are told, for instance, that the letter 'd' has the sound [d], they are so much influenced by the physical presence of the 'd' that they often read a word like 'mondta' (he said) as [m ndtå] instead of [m nt:å]. Mark also went through this phase but by the end of the period of study he appeared to be perfect in this respect, reading 'dobozt' (box), for instance, correctly as [d b st], whereas children in the second year of primary school still tend to make mistakes with assimilation. The speed with which Mark overcame these problems can perhaps be attributed to his already realising

that since writing reflects speech it is often necessary to modify the pronunciation of the graphic elements to make a word sound the way it should!

The ratio of successful to unsuccessful first readings of words in Hungarian (at home) was about 5:1, compared with ratios of 20:1, 1:1 and 4:1 in the three stages of English reading. In December the ratio was 7:1 and the overall ratio was probably lower than it might have been because Mark was more confident in reading Hungarian and tried to read words even at the risk of reading them incorrectly. Direct influence from English was negligible in his Hungarian reading. The letters 'j' and 's' confused him and he made mistakes, such as reading 'menj' (go) as [mɛnd] and 'sietek' (I hurry) as [sɛ].

Conclusions

I have already mentioned Goodman's (1989) claim that it will be easier for someone to learn to read a language he already speaks. This is important in the case of monolingual children, too, and books should be designed which provide opportunities to develop listening and speaking skills and range of vocabulary. Children should be encouraged to talk about the pictures and situations shown in them. Pictures, especially coloured ones, make books more attractive for children. My father has told me that as a boy he refused to read books with no pictures. They are also a source of pragmatical help in reading the related text. Meek (1982) and Stanovich (1986) warned against excluding techniques such as guessing from the context and using 'strategies', i.e., completing phrases in accordance with familiar syntactical constructions.

Chall (1983) claimed that reading programmes which emphasised the alphabetical code produced better readers than those with a meaning emphasis. The Hungarian reading scheme Mark used was firmly based on the alphabetic code and was much more effective than the method used in English reading. The way of printing reading books for beginners is also important. In the first instance letters should be fairly big. Söderbergh (1971) used letters 12.5 cm high in teaching her daughter of two-and-a-half years to read. My own daughter, Mairi, at the age of three liked to read letters one metre tall painted on a wall. Since most children start school at 5 or 6 probably letters of about 1 cm (size of lower case 'l') are best for beginner readers. Mark's claim that he could not read the words grouped at the end of his first English reading book in small print, although he could read them all in the book or on flash cards, underlines the importance of this. He made no complaint about the size of letters in his Hungarian reading book (5 mm) but then he already had experience of letters even smaller in his English reading series. Perhaps larger letters might have made reading easier for others in his class.

The lay-out of the text can also play a part in the ease with which a child reads. Most books one looks at have lines of the same length neatly arranged in a rectangular block on the page. The result of this is that very often a clause, a phrase or even a word is divided in two. Carpenter and Just (1981) showed that interpretation

immediately follows recognition in reading, and that fixations tend to be longer at clause endings. The latter finding indicates that integrative comprehension processes must particularly take place at clause boundaries. Thus, it will be easier to remember a text set out so that a printed line finishes at a constituent break in the syntax. When a child is starting to read he has difficulty remembering the beginning of the sentence because his short-term memory fades quickly. I often had to re-read to Mark what he had already read so that he was able to use the context as a clue to a word which was causing problems. It is obviously easier for a child to recapitulate in this way if the sentence or phrase is all on the same line.
The presence or absence of inverted commas seemed to make less difference than the spacing between words and Mark even ignored full stops sometimes. Once he omitted the word 'says' because it occurred after a larger space than usual because of the presence of inverted commas. These Mark ignored, and the fact that 'says' and its subject were on different lines probably added to Mark's confusion. When I pointed the word out to him he complained *I don't know why they have to put it a metre over there!*

I can see that there are many ways in which I could have helped Mark to progress more quickly with his English reading. Earlier introduction of writing practice would have helped him to remember words and letters better. The importance of an early connection between writing and reading is emphasized in recent studies by Ferreiro and Teberosky (1982) and Teale and Sulzby (1986).

Reading skills certainly seem to be transferable, so it would probably have turned the negative transfer to Mark's advantage if I had clearly emphasised the different phonemes represented by the same grapheme in English and Hungarian, instead of trying to keep the two languages strictly apart. Mark himself noticed the contrast between English 's' and Hungarian 's', so such observations could have been built on to bring out the similarities and differences of English and Hungarian in phoneme-letter correlation, in pronunciation of sounds and possibly in intonation, too. This is the view held by Cohen (1979): 'For example, two days after a class of Spanish [-English] bilingual children is introduced to the triple blend *str* in a medial position, such as in the word *estrella,* the experienced teacher will introduce the blend in English, using the initial position, as in *street* or *straight.*' (5) In Mark's case this extra help could only have been given in English reading, not in his Hungarian class, where he was the only English-Hungarian bilingual. However, where all the children in a class are learning a second language, transfer can be assisted in both directions in this way.

Mark is a fluent speaker of English but he lives in a Hungarian-speaking environment very different from the cultural background depicted in his reading books. Although I did my best to compensate there were times when he could not understand the text because of a gap in his cultural knowledge. Certainly when languages are taught in school I feel teachers should make every effort to acquire posters and everyday objects with writing on them, not just so that the names of the things can be learnt, but also to spark off discussion about how scenes and objects fit into the everyday life of the country whose language is being taught. Perhaps in this way it

might be easier to explain cultural differences which children may find puzzling.

Perhaps some of these remarks will prove to be of assistance in helping backward readers to improve, in particular those whose 'backwardness' is said to be caused by bilingualism. As Cohen (1979: 100) claimed, 'even a poor reader equipped with two sets of tools or languages tends to have an advantage over a monolingual reader.'

Appendix: a guide to the pronunciation of Hungarian

The following list gives all the letters of the Hungarian alphabet with an indication of how each is normally pronounced and the phonetic symbol used for each. Unless otherwise indicated the words are English and Received Pronunciation is intended to be used:

letter	approximate pronunciation	phonetic symbol	letter	approximate pronunciation	phonetic symbol
a	between '*f*a*r*' and '*h*o*t*' [å]		o	'*n*o*t*'	[ ]
à	'tralala'	[a:]	o	Scots '*o*a*t*'	[o]
b	'*b*ig'	[b]	ö	German '*zw*ö*lf*'	[œ]
c	'ra*ts*'	[ts]	o	'*th*i*rd*' – long	[œ:]
cs	'*ch*in'	[tʃ]	p	'*p*in'	[p]
d	'*d*in'	[d]	q	German '*Qu*arz'	[kv]
dz	'li*ds*'	[dz]	r	Scots '*r*un' – rolled 'r'	[r]
dzs	'*j*am'	[d]	s	'*s*ure'	[ʃ]
e	'b*e*t'	[ɛ]	sz	'*s*un'	[s]
é	Scots 'm*a*ne'	[e]	t	'*t*en'	[t]
f	'*f*in'	[f]	ty	palatalised 't' – 'I'll bea*t* you'	[tj]
g	'game'	[g]	u	'm*oo*t'	[u]
gy	palatalised 'd' – 'He hi*d* your book'	[ ]	ù	'r*u*de' – long	[u:]
h	'*h*it'	[h]	ü	French 'l*u*ne'	[y]
i	'b*ea*t'	[i]	ű	same sound, but long	[y:]
í	'm*e*' – long	[i:]	v	'*v*ane'	[v]
j	'*y*es'	[j]	w	same sound	[v]
k	'*k*ite'	[k]	x	'Ma*x*'	[ks]
l	'*l*ight'	[l]	y	'f*ee*t'	[i]
m	'*m*ilk'	[m]	z	'*z*ebra'	[z]
n	'*n*ine'	[n]	zs	'plea*s*ure'	[ ]
ny	Spanish 'se*ñ*or'	[ɲ]			

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