Information processing models of skilled monolingual spelling (e.g., Ellis, 1984: 73; Goodman and Caramazza, 1986: 311) posit two routes to spelling production, one for spellings that are assembled, one for spellings that are addressed. Following Morton (1980), Ellis maintains that the semantic representation of the word being spelled serves as input to a graphemic word-production system where it activates the appropriate unit which releases the correct letter string. Neuropsychological evidence leads Ellis to conclude that the graphemic word-production system stores all familiar spellings, not just those of irregular or unpredictable words, although Günther (1987) warns against drawing inferences from neuropsychological data to normal models of reading. Moreover, the existence of synonyms, heterographic homophones, and homophonous but heterographic allomorphs, such as the /z/ in plural 〈boys〉, possessive singular 〈boy’s〉, and possessive plural 〈boys’〉, suggests that the translation from meaning to spelling must also be mediated by syntax, morphology, and sound.

Assembled spellings are thought to involve either analogies or phoneme—grapheme correspondences. Following Campbell (1983), Ellis maintains that skilled spellers use analogies to familiar words when assembling unfamiliar spellings. Campbell dictated words and nonwords to normal subjects who tended to spell a nonword like prein as 〈prain〉 if they had recently spelled the word 〈brain〉, but as 〈prane〉 if they had recently spelled the word 〈crane〉. The application of phoneme—grapheme correspondences presupposes the segmentation of the phonemic string into its component syllables and phonemes, and letters must be selected and assembled into candidate spellings. Assembled spellings, like addressed spellings, cannot be effective without prior syntactic, morphological (Luelsdorff, 1988b), and phonological analysis, e.g., distinguishing the contraction 〈dog’s〉, from the possessive plural 〈dogs’〉, from the plural 〈dogs〉.

In a recent version of the dual route-to-spelling hypothesis (Goodman and Caramazza, 1986: 311), reproduced in Figure 1, familiar words are spelled by accessing the lexicon, novel words by accessing rules for phonological segmentation and phoneme—grapheme correspondences, and, for both oral and written spelling the same lexical (e.g., graphemic output lexicon), and nonlexical (e.g., phoneme—grapheme correspon-
Auditory Input

Oral Spelling

Fig. 1. The monolingual speller.

Oral Spelling

Written Spelling

Oral Spelling

Written Spelling

Fig. 1. The monolingual speller.

dences) processes are executed, with differentiation of oral and written spelling (e.g., letter-name vs. allographic conversion processes) occurring only post-graphemically.

The Goodman—Caramazza model of spelling thus consists of lexical, nonlexical, and post-graphemic processing mechanisms. Now, if one imagines this monolingual model of spelling duplicated for the bilingual, in particular for the German learner of English orthography, as depicted in Figure 2, a number of deficits are predicted which in fact occur.

At the level of Phonological Processes, if the English Auditory Input in spelling to dictation were processed as though it were German, and German Phoneme—Grapheme Conversion Rules applied to the phonological representation in the English Output Phonological Buffer, the result would be an English word spelled as though it were German. Ample evidence of this we find in our corpus (cf. Luelsdorff, 1986a) in misspellings such as (Schwan) for (swan), (say) for (they), (sinks) for (thinks), and (fint) for (find), the latter reflecting the negative transfer of German syllable-final obstruent devoicing. On this view, and the one developed in Luelsdorff (1986a), the learning problem resides on the level of English Phonological Processes, not on the level of English Phoneme—Grapheme Conversion Rules, since, for example, if the learner learned to suspend