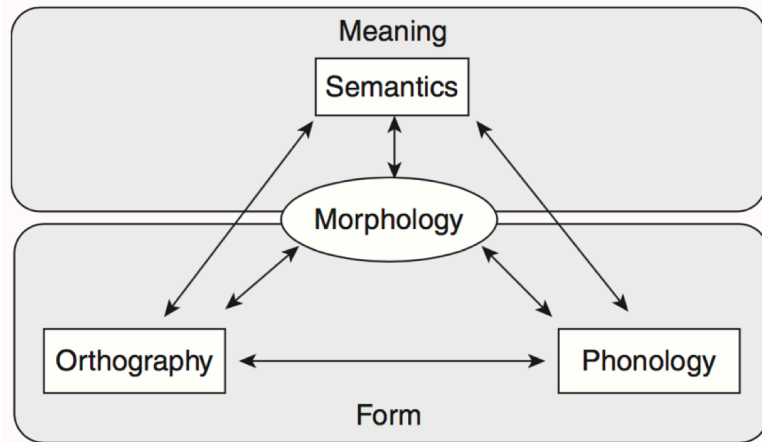


Binding Agent Theory of Morphology

(Bowers & Kirby, 2010; Kirby & Bowers, 2017)



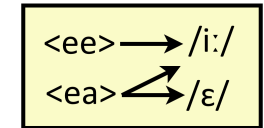
The “binding agent theory of morphology” was first described in the Grade 4/5 vocabulary intervention (Bowers & Kirby, 2010) that tested a form of instruction we called “Structured Word Inquiry” (SWI). This instruction used the morphological matrix and word sums to teach how English orthography favours consistent spelling of meaning over consistent spelling of pronunciation. For example, we used grapheme-phoneme diagrams to provide a concrete representation of the different phonemes the <ea> digraph represents in “heal” and “health.” This instruction leverages the unique capacity of morphemes to have spellings, pronunciations and meanings. Kirby and Bowers (2017) outlined this theory in more detail and introduced a visual representation like the one above.

Perfetti (2007) argued that increased binding between any two of the three features of word identity (pronunciation, spelling and meaning) results in increased lexical quality for the word. The Active Reading Model, (Duke & Cartwright, 2021) emphasizes both “morphological awareness” and “spelling-meaning-pronunciation flexibility” as important “bridging processes” between word recognition and language comprehension. Other theories point to the crucial interrelation of morphology with spelling, pronunciation, and meaning, including Triple Word Form Theory (Berninger et.al, 2006) and the Morphological Pathways Framework (Levesque & Deacon, 2021).



heal + ing → healing
 heal + ed → healed
 heal + th → health
 heal + th + y → healthy
 heal + th + y/i + er → healthier

<heal> matrix from [Real Spelling](#)



< ea >	
“long e” /i:/	“short e” /ε/
heal healing healed	health healthy healthier

Current reading theory brings new emphasis to the interrelation of morphology, phonology and orthography for literacy learning. Typically, however, this theory comes with few or no instructional recommendations. By contrast, the “morphology as a binding agent” theory was developed in conjunction with instructional practice. Teachers have been working with matrices and word sums from Real Spelling since before 2001. (Current Real Spelling resources are [here](#).) Marcia Henry (2003/2010) emphasized these tools in “Unlocking Literacy.” Professional development in SWI is now widely available.

Share (2021) argued that the interrelation of morphology, phonology and orthography has only received the research attention it deserves in the past decade. Despite that delay, there is a network of educators who have been developing instructional practice targeting this exact content for two decades. Instructional studies should work to identify weaknesses and strengths of current practices targeting current reading theory. We hope our matrix study (Ng, et al., 2022) was just a first small step in that effort.

See a Grade 1 SWI lesson addressing these same ideas [here](#).

See an illustration of spelling-meaning correspondences from etymology [here](#).

See a video on the interrelation of morphology and grapheme choice [here](#).

See (Bowers, 2022) for an accessible article on the theory, research and practice of SWI.