If you work with school-age children, chances are that you might have heard of the movie, High School Musical (Schain, 2006). When I think about our students with language/learning disabilities and the multifaceted difficulties they experience in the classroom, I am reminded of the movie’s intricately danced basketball number entitled Get‘cha Head in the Game (Ortega, Borden, & Rosenbush, 2006). What does it take to help our students compete in the intricate game of literacy? There are many strategies and exercises that we as language and literacy “coaches” (a.k.a. speech-language pathologists) need to provide to create academic winners. This clinical forum addresses one aspect of language that can influence victory in the language and literacy arena: morphological awareness. Morphological knowledge entails sensitivity to the internal, meaning-related structure of words, including inflections (i.e., endings such as the present progressive *ing* or the plural *s* that change tense or number) and derivational forms (i.e., changes to a base word that transform the word from one grammatical category to another, such as *quick* to *quickly* or *write* to *written*) (Green et. al., 2003). An additional important aspect of morphology is that some base words have a transparent phonological relationship with the derivative such that the base word is pronounced the same way in both words (e.g., *active*—*activist*), whereas others have an opaque phonological relationship such that the base undergoes stress and/or phonological changes when it is pronounced as part of the derivative (e.g., *sign*—*signature*).

Thinking about it strategically and theoretically, morphological awareness can support a variety of literacy skills, including word identification, reading fluency, reading comprehension, and spelling. First, morphological awareness can support word identification, linguistic comprehension, and reading fluency by enabling children to analyze the internal structure of words in order to decode them more quickly and accurately. For example, at a challenged reader’s first glance, the word *sleeplessness* may seem like a long, complex, and daunting string of letters. But, when the word is broken down into its three familiar morphemes (e.g., *sleep*, *less*, *ness*), it becomes more decodable. Additionally, specific knowledge of derivational suffixes and their pronunciations can facilitate decoding (e.g., the derivational ending *-tion* is consistently pronounced *shun*).

Overall, the more effectively the word is read, the better the opportunity for successful comprehension.

Morphological knowledge can also enable children to substantially increase their vocabulary and comprehension skills by using the meanings of familiar base words and suffixes to infer the meanings of unfamiliar derivatives. This is especially relevant given that approximately 60% of new words that are acquired by school-age children are morphologically complex, with identifiable internal
structure (Anglin, 1993; Baumann et al., 2002; Nagy & Anderson, 1984). For example, a reader who encounters the unfamiliar word owlet could use existing knowledge of the word piglet to infer that the suffix let turns the base word into a “younger version of itself” (therefore, an owlet must be a young owl). Additionally, morphology can influence comprehension in a way that is best illustrated by my favorite example from Tyler and Nagy (1990). Examine the source of the meaning change in the following two sentences. “A general indecision about the use of nuclear weapons could be a threat to national security” versus “A general indecisive about the use of nuclear weapons could be a threat to national security.” The derivational suffix allows each sentence to be parsed differently, and correct parsing contributes to successful comprehension.

Lastly, morphological knowledge may also support the learning of regular and irregular spelling patterns. For example, morphological insight allows us to correctly spell the regular past tense verb ending (e.g., jumped), even though the inflectional ending may be pronounced /t/ as in pushed, /d/ as in wagged, or /id/ as in waited (Green et. al., 2003). Or, consider the following iced “silent letter” spelling words: sign, bomb, and hymn. Although these spellings may seem quite mysterious at this base word level, derivational morphological knowledge can provide the auditory “identity” of the silent letters via the words signature, bombardment, and hymnal.

Once we understand the theoretical connections between morphology and literacy, we can examine what research has told us about this relationship. In general, a large number of studies have documented a significant association between children’s derivational morphological awareness and their reading and spelling skills (e.g., Carlisle, 1987, 1988, 1995, 2000; Carlisle & Stone, 2005; Champion, 1997; Elbro & Ambak, 1996; Fowler & Liberman, 1995; Green et al., 2003; Mahoney, Singson, & Mann, 2000; Nagy, Berninger, & Abbott, 2006; Singson, Mahoney, & Mann, 2000; Windsor, 2000). Many of these studies found such relationships not only in children with typical language, but also in children with reading and language/learning disabilities. In addition, performance on phonologically opaque items in morphological tasks typically shows a stronger relationship with reading skill than does performance on phonologically transparent items (Carlisle, Stone, & Katz, 2001; Windsor, 2000). Thus, research has documented the importance of derivational morphology to literacy and has demonstrated an even stronger relationship between opaque derivational transitions and reading and spelling.

Beyond these general conclusions, I will leave additional specifics of the literature to be shared by the authors in the articles herein. I am excited about the depth and diversity of these studies and briefly summarize what you have to look forward to.

Wolter, Wood, and D’zatko begin the forum with their examination of morphological awareness in first-grade children and their potential use of this knowledge to guide their spelling. Additionally, the authors examine whether morphological abilities are predictive of performance on word-level reading and spelling measures. They found that the first graders did indeed demonstrate morphological awareness and used it to guide their spelling, thus expanding our understanding of derivational morphological development at this early grade level. Heretofore, first grade was thought to be a time of primarily inflectional morphological development, and the later elementary grades were identified as a time of derivational growth. This study also adds support to the connection between morphology and literacy as the participants’ performance on the oral morphological awareness production task was uniquely predictive of their word-level reading and spelling abilities.

Next, Jarmulowicz and Hay provide a morphophonological perspective, adding to our understanding of the phonological changes that are associated with some derivational suffixes. In their post hoc examination of third graders’ stress and syllabification errors in derived word production (e.g., adding -ity and -ic to base words like equal and artistic), they investigate the influence of lexical and prosodic effects. Specifically, the authors hypothesize that the children’s errors will decrease as a function of word frequency (i.e., the more familiar the word, the fewer errors will be made) and that the children will be unlikely to produce correct stress patterns when syllabification is incorrect (i.e., if they cannot correctly create the syllables in the derivation, then their stress will also be incorrect). Their findings generally support their predictions, reminding us that morphophonological patterns affect how readily a child can produce a derived word.

Third, Apel and Thomas-Tate take on the important task of investigating the relationship between African American English (AAE) use and morphological awareness, a connection that we currently know little about. They examine fourth graders’ spellings of Standard American English (SAE) morphologically complex words along with the relationship of morphological awareness skills with other literacy abilities. They found that degree of AAE use did not affect students’ morphological awareness skills and that these skills were related to and explained unique variance on measures of reading and spelling. These findings again support the morphology–literacy connection, and the authors suggest that morphological instruction may be an avenue for instruction with readers who are speakers of AAE.

The final two articles illustrate how we can now put our morphological research findings into clinical practice. Katz and Carlisle designed an intervention protocol targeting two strategies to improve reading accuracy and understanding of derived words. The program provides instruction in common suffixes and prefixes and in using context to derive meaning from unfamiliar words. They examine its use with 3 fourth graders with mild-to-moderate language/reading difficulties and document progress across a variety of language and literacy skills.

Lastly, Kirk and Gillon investigate the effects of an integrated morphological and orthographic awareness program on the reading and spelling abilities of 8- to 11-year-old poor spellers. The program provides instruction in orthographic patterns in both morphologically simple words (e.g., the role of the silent -e) and morphologically complex words (e.g., changes in spelling patterns with the addition of a suffix such as -est, which might require a change from y to i, as when going from funny to funniest). The children who received the intervention made significantly greater gains in reading and spelling accuracy than did the children who did not receive the intervention, again supporting the importance of morphology in literacy instruction.

I hope that the data presented in these studies and the authors’ discussions of the findings will add some strategies to your “game plan” when it comes to the assessment and treatment of school-age children with language and literacy difficulties.

REFERENCES


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