CHAPTER 7



Edmund Burke Huey (1870–1913): A Brief Life With an Enduring Legacy



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Historical Research Process

LOCATING AND READING the work of Edmund Burke Huey, although requiring days of intensive searches in long-forgotten corners of the library, proved to be more easily accomplished than the search for the life of the man behind the words. Initially, John Carroll's foreword in the 1968 republication of Huey's seminal work *The Psychology and Pedagogy of Reading* (1908/1968) provided our sole source of biographical information on Huey. The facts of his life were sketchy and evoked more questions than answers. We wondered about his childhood and the factors that might have con-

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tributed to his professional interests. We wondered whether he had married and had a family. We were unsure of why his place of death was listed as Washington state and wondered what events had caused him to be there when his last place of employment had been Baltimore, Maryland, USA.

Our first course of action was to contact the Department of Vital Statistics in Olympia, Washington, USA, and request a copy of Huey's death certificate. This document proved to be a key beginning in the search for the personal side of Huey's life, providing a wealth of information previously unknown to us. From this certificate we learned who his parents were. We also found that what the certificate lists as the date and place of his birth as well as the date of his death contradicts what Carroll states. Carroll's foreword says that Huey was born December 1, 1870, in Curllsville, Pennsylvania, USA. This same birth date is recorded in obituaries announcing Huey's death ("Notes and News," 1914; "Scientific Notes," 1914). The 1910 United States Federal Census also shows Huey's year of birth as 1870. However, his death certificate lists his date and place of birth as December 2, 1871, in Rimersburg, Pennsylvania, USA (Department of Vital Statistics, 1913).

The death certificate also lists Huey as single—as opposed to widowed or divorced—at the time of his death, telling us that he had never married. Working backward from the information contained in his death certificate, we were able to reconstruct personal aspects of Huey's short life through the use of obituaries, census records, and existing fragmented biographical information. It is, indeed, ironic that the death certificate proved to be the catalyst in finding the life story of Edmund Burke Huey.

We would discover that Huey's interest in the teaching and learning of reading was short-lived—barely a decade—yet in that time he studied eye movements, reading as a cognitive process, and even health issues related to reading. His best known work, *The Psychology and Pedagogy of Reading* (1908/1968), serves as the first true compendium of reading research and also suggests areas of study that are thriving today.

Personal and Professional Life

Huey's parents were Robert B. and Matilda Fackender Huey of Rimersburg, Pennsylvania, USA. His father (whose primary occupation was that of physician) rented a building in which he served as the principal of a private school—the Clarion Collegiate Institute—in Rimersburg for about one year. The elder

Huey assumed this position because the regular management of the school had been suspended (Davis, 1887, p. 595). This one-time involvement by his father in educational administration may have been influential in young Huey's future decision to enter the field of education as a profession.

Huey's mother died in 1880, when he was only 9 years old (Eccles-Lesher, 2005). At about the time of his mother's death "Eddie," as he is referred to in the census and other documents at the time, went to live for an undetermined amount of time on the nearby farm of his paternal grandparents, Robert and Elizabeth Huey. This same year, Huey's father moved west to establish a medical practice in Birmingham, Illinois, USA (U.S. Federal Census, 1880).

Huey received his undergraduate education at Lafayette College in Easton, Pennsylvania, USA. He was awarded an AB in 1895. From 1895 through 1897, he taught at a private secondary academy in the northeastern Pennsylvania coal-mining community of Wilkes-Barre.

He pursued his doctoral studies at Clark University in Worcester, Massachusetts, USA. His focus on reading was nurtured at Clark University, where he studied under the university's first president, G. Stanley Hall, one of the fathers of American psychology and founder of the American Psychological Association. Hall's interests in learning, development, and the need for increasing the organization, numbers, and publications of scholarly works (Hall started many journals such as the American Journal of Psychology and the Journal of Applied Psychology) are reflected in Huey's 1908 tome.

Other professors at Clark University who influenced Huey's studies were W.H. Burnham, with his research on conceptions of memory; C.F. Hodge, with his investigations into the stimulation of nerve cells; and E.C. Sanford, who had published research on the relative legibility of small letters. Sanford was also Huey's academic advisor, and the influence of their association is evident in Huey's first published papers as well as in his later book, *The Psychology and Pedagogy of Reading* (1908/1968). In those publications Huey discusses the importance of font size, paper quality, and appropriate lighting to the reading process (Huey, 1900, 1907).

Huey's interests in the reading process were set in the context of many issues of human development and health. His concentration on the physiology of the eye was one facet of his interest in the eye—brain relation that is such an integral part of the reading process. While Huey was studying at Clark University, he developed an apparatus that allowed him to observe and

track readers' eye movements. He describes the device in considerable detail in *The Psychology and Pedagogy of Reading* (1908/1968, pp. 25–27). It consisted of a small, rounded plaster of Paris cup that was shaped to attach directly to the eyeball of the reader. A very thin metal rod that acted as a pointer was connected to the cup by a light lever made of celloidin and glass. As the reader read, the pointer traced and recorded the movement of the eye by displacing a dot of soot on a cylindrical paper drum. Huey reduced or alleviated any possible discomfort his research subjects may have experienced by the administration of desensitizing agents—even, at times, cocaine.

Although his device was crude by modern standards, it was capable of recording landmark information regarding how the eye travels across the printed page. Until the research of Emile Javal (1839–1907), the French oculist, it had been believed that the eyes move across text in one continuous and smooth movement. Huey's work provided further evidence that this is not the case. Rather, the eye travels across the print in a series of quick movements and pauses. He conjectured, along with a few other researchers at the time, that the eye does not focus when it is in motion, but that "the visual field is unbroken to consciousness" (1908/1968, p. 36). Thus, he understood that the reading process involves interactions between the eyes and brain that are highly complex in nature. He surmised that the reader reads text using the largest, rather than the smallest, meaningful unit obtainable by the eye. This issue continues to be debated today in conflicting reports about the relation between what the eye captures and what the mind processes. Doubtless, Huey would have rejoiced at the technological advances that allow for more accurate measurements of the physiology of the eye during reading and the concomitant brain processes that occur during eye movements.

Huey completed his doctoral studies and was awarded his PhD by Clark University in 1899. His dissertation, "On the Psychology and Physiology of Reading," was soon published in two parts in *The American Journal of Psychology* (Huey, 1900, 1901). Following the completion of his studies at Clark University, Huey accepted a position teaching at a state normal school in Moorhead, Minnesota, USA. He remained there until 1901 (Carroll, 1968, p. vii; Cattell, 1910).

From 1901 through 1902, Huey availed himself of the opportunity to study in Europe. During this year, his time was divided between universities in Paris and Berlin. His travels allowed him to become better acquainted with

the French oculist Javal and the German psychologist Benno Erdmann. Both these Europeans were gaining scientific fame for their pioneering studies regarding the visual processes involved during reading (Carroll, 1968, p. viii).

Huey returned to the United States in 1902 and taught genetic psychology at Miami University in Oxford, Ohio, USA, for a year. He then returned to Clark University in 1903 to become an assistant to E.C. Sanford, his former doctoral advisor, and help run the psychology laboratory. In 1904, Huey left Clark University to become a professor of psychology and education at the University of Western Pennsylvania in Pittsburgh. At this university, Huey was instrumental in organizing a joint department of psychology and education and in founding a laboratory of experimental psychology.

Huey continued his experiments and studies related to the psychology of reading while he was at the University of Western Pennsylvania (Carroll, 1968). It was during this time that he wrote his oft-cited book, *The Psychology and Pedagogy of Reading* (1908/1968). This book was an outcome of the research Huey had initiated while still a doctoral student at Clark University, but he was now able to draw upon the eye-movement research of investigators such as Raymond Dodge (see chapter 3, this volume) and Walter Fenno Dearborn (see chapter 6, this volume). His book is still referred to as a major contribution to the field of educational psychology (Charles, 1987, p. 26).

Huey left the University of Western Pennsylvania in 1908 to study abroad again. This time he spent a year studying with Pierre Janet, a renowned French psychiatrist whose acquaintance he probably had made during his prior trip to Europe. By this time, Huey's research interests were no longer focused on the field of reading pedagogy, and he was becoming more interested in research on the psychology of mental deficiency.

Upon his return to the United States in 1909, Huey accepted a position as a clinical psychologist at an institution for the "feeble-minded" in Lincoln, Illinois, USA. He resigned from this post in 1911 and accepted a position at Johns Hopkins University in Baltimore, Maryland, USA, to engage in clinical research with Adolf Meyer, founder of the mental hygiene movement. At Johns Hopkins University, Huey was a lecturer on mental development and an assistant in psychiatry at the Phipps Clinic ("Obituary," 1914).

Huey's second book, *Backward and Feeble-Minded Children: Clinical Studies* in the Psychology of Defectives, With a Syllabus for the Clinical Examination and Testing of Children, was published in 1912. By this time, Huey was recognized by his colleagues as one of the foremost leaders in the study of "mentally

defective children" ("Notes and News," 1914). This second book contains his analysis of 32 children who were patients at the institution in Lincoln. Huey considered these documented cases to be borderline in their mental deficiency and surmised that their lack of development was due to "poor health, poor eyes, or improper home surroundings" (1912, p. 171). Huey felt that these students should receive training that would allow them to be self-supporting and advocated for the development of specialized occupational classes in schools to meet their needs.

Tragedy struck Huey in 1913 when the notes and manuscript of a third book, focusing on clinical psychology and culminating approximately 10 years of work, were destroyed by a fire. At this same time, Huey's health failed. He was diagnosed with tuberculosis, perhaps contracted during the time of his European studies. In the early 1900s, eastern Washington State was being touted as a place to recuperate from lung and respiratory ailments because of its dry climate. Huey moved to Connell, Washington, USA, in an effort to restore his health. Unfortunately, he succumbed to the disease on December 30, 1913.

Philosophical Beliefs and Guiding Principles

Edmund Burke Huey believed that reading is a complex process that involves the eyes, eye movements, the physiology of the brain, and the workings of the mind (Luria, 1979). He was convinced that issues of health, such as fatigue, glare, and print size, affect a reader's physical state of being (Huey, 1907). He also believed that his and others' findings about reading needed to be applied to reading pedagogy in schools in a timely and systematic way so research would inform pedagogy and pedagogy could inform the research agenda. He presented reading as a cognitive process rooted in an individual's construction of meaning, doing so around the time that cognitive views of learning were in their infancy.

Huey's work in reading research, spanning about 10 years, reflected the thinking of John Dewey, a progressive educator whom Huey admired and to whom he makes reference in some of his works. Huey supported Dewey's emphasis on the use of context, rather than drill, to introduce new words to young readers. He also admired Dewey's practice of teaching phonics separately from the reading lessons to keep the focus of reading instruction on obtaining the message of the text (Huey, 1908/1968, pp. 293–294).

Huey explained that reading is more than a collection of sounds or words. Reading is a perceptual process and, although readers do see words and sometimes use the sounds of individual letters to decide what a word is, the process of reading involves meaning making. This suggests, he argued, that the goal of reading instruction is for readers to learn to rely as little as possible on letters, sounds, and words. He understood these three elements to be visual "cues" (Huey, 1908/1968, p. 77), a word he used almost 60 years before research on miscue analysis was initiated by Kenneth Goodman (1967). Huey also believed that reading involves some tension between the building of images in the reader's mind and the use of inner speech as a way of understanding text. These beliefs were rooted in his research with readers who reported to him that they sometimes had mental images as they read, other times pronounced words silently in their minds, and on occasion subvocalized words (particularly if a text was challenging).

Huey explained reading as involving an individual actively predicting the sense of a text based upon perceptions of sounds, words, grammar, and meaning. He posed the idea that readers had "expectations" (Huey, 1908/1968, p. 157) of a text based upon what they read, their experiences, and their understanding of what language does in terms of its grammatical features both across texts in general and within a particular text.

The issue of fluency, quite popular now, was also studied by Huey. He concluded that readers' rates of reading varied across the type of text being read, an aspect of reading that researchers continue to study today (National Institute of Child Health and Human Development [NICHD], 2000, pp. 3-6). He also suggested that reading rate varies as a function of the physical state of the reader, prior experience with the subject matter being read, concentration, and the reader's strategies. He noted that some readers survey a text prior to reading and make decisions about how much to read, when to skip parts of the text, and which content words contribute to meaning making (1908/1968, p. 144). Huey's work on the phylogeny or development of the reading process parallels Vygotsky's (1934/1978) explanation of language development, although Huey did this work prior to Vygotsky's influence in the United States. Huey, like Vygotsky, discussed gestures, drawings, and scribbles as precursors to the written language development of individuals. Huey's interest in the development of the use of symbols for representation and the eventual evolution of an alphabet and conventions of printed language led him to suggest that alphabets are the most highly developed form of written language (1908/1968, p. 203).

Huey was dedicated to understanding effective reading pedagogy. After tracing the history of reading instruction programs and examining contemporary materials available for use in schools by teachers, he condemned most programs published specifically for reading instruction (1908/1968). He called them "most striking...[in] the inanity and disjointedness of their reading content" (pp. 278–279). Using what he had learned about the informal reading instruction that occurred in literate homes during his time, he suggested that reading be taught in a way that is natural, much the way oral language is taught, rather than as a "mechanical tool" (p. 306). He believed that children needed to be taught to read books that interested them and taught about the sound system of language (phonics) by using what they could already read. This led him to conclude that phonics is best taught when children are about 8 years old. This is consistent with the views of Montessori (1912), although Huey never cites her work.

It is apparent that Huey explored many of the critical issues we continue to face as scholars and teachers of reading. He recognized the complexity involved in the reading process and the essential role of meaning making in that process. He further advocated the use of instructional materials that drew from the interests and personal schemas of individual students.

Contributions to the Field of Reading

Edmund Burke Huey's remarkable volume *The Psychology and Pedagogy of Reading* (1908/1968) serves as the first compendium of research and thought on the reading process. We could find no other volume near the turn of the 20th century that served to summarize reading research as thoroughly as this one. Indeed, the book reminds us of volumes that appeared near the end of the 20th century and that claim to serve this summarizing purpose, such as those by Adams (1990) and Snow and her colleagues (Snow, Burns, & Griffin, 1998), and the report of the National Reading Panel (NICHD, 2000).

One measure of the influence of Huey's work is the extent to which it is cited in contemporary scholarship in the field. Nila Banton Smith (1965/1986), a historian of reading instruction, refers to Huey's work as "still considered a standard reference in this field" (p. 123). His work is cited in 9 of 25 chapters in the first volume of the *Handbook of Reading Research*

(Pearson, Barr, Kamil, & Mosenthal, 1984), in 10 of 25 in the second volume (Barr, Kamil, Mosenthal, & Pearson, 1991), and in 5 of 47 chapters in the third volume (Kamil, Mosenthal, Pearson, & Barr, 2000). Edfeldt (1990), in an article about dyslexia, writes, "Reading instruction at school must as soon as possible be changed radically in the direction which Edmund B. Huey was anticipating almost a hundred years ago" (p. 71). Such instruction would include emphasis on meaning making and comprehension. Huey felt that instruction should not be based on the view that learning to read is a formal process, but rather should find its basis in the intrinsic value of what is read (1908/1968, p. 380).

Historical studies of the place of psychology in education are not considered complete without mention of Huey's contributions (Hilgard, 1996, p. 998). Hiebert and Raphael (1996) point out that the shift to considerably more behaviorist views of the reading process, including the idea that reading involves automaticity rather than efficient cognitive processing, temporarily slowed interest in Huey's work. Still, in our present and tense times about what constitutes reading research and quality practice, scholars with differing approaches to reading instruction, such as Kenneth Goodman's meaning-based emphasis (1993) and Adams's phonetic-based methodology (1990), rely upon Huey's thinking about the reading process to support their own views.

A close look at Huey's work demonstrates that Huey had certain views of reading instruction and scholarship, including what needed to be studied as well as what the extant research suggested during his own time. In the following sections, we summarize some of his contributions to reading research and pedagogy. We find it extremely noteworthy that Huey's compilation (1908/1968) provides a broad consideration of the complexity of reading. He accomplished this task by setting the reading process in the context of such areas as language development, cognitive development, physical development, health and well-being, experiential background, the features of print making (paper quality, font size, etc.), and the close scrutiny of materials used for reading instruction in school as compared to literature available to children outside school.

Definition of Reading

The purpose of Huey's dissertation (published in 1900 and 1901) was to "analyze and describe the psycho-physiological processes involved in reading"

(1900, p. 283). In these two pieces and subsequently in the book (1908/1968) in which he elaborates upon his findings, Huey presents the physiological aspects of reading, which involve eye movements and fixation, and health and well-being. He presents reading as psychological, linguistic, and social in his discussions of language development, cognitive psychology, and meaning making.

Eye-Movement Research

In addition to what we discussed earlier, Huey found that eye movements did not differ significantly as a function of the reader's distance from the text but that smaller fonts caused an increase in eye fixations. He found that content words were often the site of fixations and readers did not fixate as often on function words. Huey (1898) lamented that the technology was not sufficiently developed to provide answers to important questions about eye movements.

Word Perception

Huey (1908/1968) reported that word perception was a function of the way that a reader was taught to read. For example, readers who are taught to focus on letters tend to focus on letters. Those readers whose instruction focuses on words tend to notice words more (pp. 103–104). He surmised that, over time, readers' experiences with reading influence their perception of words, in what was perhaps a foreshadowing of the Matthew Effect—good readers getting better and poor readers getting worse as time goes on (Stanovich, 1986). The sheer volume of words encountered by the skilled reader provides a cumulative advantage for that reader in learning to process text more efficiently and effectively.

Huey writes that visual perception cannot be separated from "the part played by inner speech and the consciousness of meaning" and that "meaning...dominates...the perception of words and phrases" (1908/1968, p. 116). He uses the word "predictable" throughout his work on word perception and suggests that readers use cues, such as their knowledge of the structure of language, to predict meaning. This is consistent with his assertion that language grows from meaning, which he credits to the well-known German researcher Wilhelm Wundt (1900).

Meaning

Huey (1908/1968) writes that meaning "belong[s] to the larger wholes, to the sentences and other large units" (p. 158). He reports that words within a continuous text (e.g., an article or story) are afforded "a rich context of associations" (p. 155) from within the text and because of the readers' experiences. Reflecting the opinions of another scholar, G.F. Stout, Huey boldly asserts that "apprehension of a whole, which takes place without the discernment of its parts...[reflects] the history of the individual" (1908/1968, p. 161). He also explains that readers need a sense of grammar to make meaning but that meaning is "deeper...we approach the pure meaning-consciousness as detached from articulation" (p. 165).

Huey seemed to know intuitively that a true understanding of the use of language demands a deep commitment to understanding structures of the brain and mind. Huey's influence can be seen in the present-day language researchers use to discuss meaning making—Huey describes meaning as something happening in the dark brain, away from the light that readers use to initially see words and sentences. Almost as if foretelling Frank Smith's ideas about "reading from behind the eye" (1997, p. 10), Huey writes, "The sentence-utterance, as we have seen, comes at some distance behind the eye" (p. 168).

History

In *The Psychology and Pedagogy of Reading*, Huey (1908/1968) provides a brief history of methods used in the teaching of reading, beginning with the early Greek and Roman civilizations. Although the alphabetic method of learning to read was predominantly used throughout the Western world, there were alternate methods being used in other areas such as the Far East. In that part of the world, beginning readers were given books and asked to repeat the text in unison until the readers knew the words and sentences.

The alphabetic method of instruction traveled to the United States with the Puritans, and that philosophy of learning was perpetuated over the next two centuries through the use of various reading primers. Huey notes that a change in this way of thinking did not occur until the publication of Worcester's *A Primer of the English Language, for the Use of Families and Schools* in 1828, which advocated learning to read by learning words first (Huey, 1908/1968, p. 258). This was Huey's favored method of teaching reading.

Pedagogy

As mentioned, Huey reviewed the history of materials and approaches available for reading instruction. Finding the materials and approaches rather dismal, he recommended exciting and interesting literature as a central part of reading instruction. He presented evidence of instruction based upon children's interests and typical out-of-school literature at Bank Street School in New York City and at Horace Mann in Chicago, two schools whose pedagogies were guided by the educational philosophy of John Dewey. Huey's view that phonics instruction should occur after the initial reading of books was confirmed at these schools.

Other Contributions

Huey's interest in the pedagogy of reading extended into many other facets of the field. His contributions to reading research also include descriptions of factors influencing reading rate. He suggested close study of children's reading to understand slow rates, but he attributed some slow reading to the effects of oral reading experiences in school. He was concerned about readers' fatigue because of poor lighting, muscle strain, and reading location. He called reading on a train "neurally expensive" (1908/1968, p. 390). He was an advocate of shorter lines of print in books so the eye might more easily view previously read lines and words. As a result, he preferred newspaper layouts to book layouts because of the narrow columns of the former and because more important items were printed in larger type in newspapers, helping readers to decide what to read. He proposed the use of a simpler alphabet with no silent letters and a consistent spelling system that had phonetic regularity. With a clarity that seems virtually prophetic, Huey called for specialists to study reading closely and to submit their findings to the government for the purpose of central supervision of optimal strategies that should be taught to readers (p. 430).

Huey also pointed out that reading and writing are related processes that inform the learner reciprocally. In *The Psychology and Pedagogy of Reading* (1908/1968), Huey summarizes his conclusions and recommendations on the essentials of quality reading instruction. He states that the home is the natural place for a child to learn to read by being introduced to literature through the storytelling and picture reading. He further states that little work should be done with phonics in the early years and that phonics instruction

should be addressed separately from reading instruction. He believed that the reading process should never be viewed as an end in and of itself but that its value should be intrinsic and its purpose should be to gather meaning from the text (pp. 379–383).

Eventually, Huey's interest in reading waned and he shifted his attention to working with children with special needs (Huey, 1913). We have been interpreting and extending his contributions to reading research and pedagogy since the time he ended his research.

Lessons for the Future

The comprehensive view of reading that Huey studied and proposed made him unique in his time and, more importantly, influential on the thinking of reading researchers from his time to the present day. Former International Reading Association President Alan Robinson (1980) discusses five different periods of his life during which he read and reread Huey's 1908 tome: (1) as a reading specialist, (2) as a doctoral student, (3) as a beginning professor, (4) as an experienced professor, and (5) as Association president. Many of the ideas that we are studying as scholars and applying as practitioners in classrooms have roots that can be traced to this classic work. Although Huey studied and wrote about the reading process near the turn of the 20th century, his insights have endured the test of time. His thinking foreshadowed current debates regarding how best to teach reading and resulted in the 1968 republication of *The Psychology and Pedagogy of Reading*.

Eye-movement research (Paulson & Freeman, 2003) has reached a point that would excite Huey because technology is finally available that can track readers' eyes accurately as well as measure the length of fixations in exact fractions of a second. Brain research that focuses on what occurs physiologically during reading (Strauss, 2005) would also intrigue Huey. His interest in the brain and the mind would probably lead him to a serious consideration of multiple intelligences (Gardner, 1983) and of projects similar to the one with young children in Reggio Emilia, Italy (Edwards, Gandini, & Forman, 1998), where the curriculum is not taught in arbitrary time slots designed by adults. We the authors imagine that the scholarship on children as inquirers (Short, Harste, & Burke, 1996) would also be of interest to Huey.

Researchers continue to struggle with and argue about several basic questions as we near the centennial of Huey's book. We are still not in agreement

about the role and placement of phonics in beginning reading instruction. We are still exploring comprehension, work that is complicated by issues such as second-language acquisition (Freeman & Freeman, 2004), cultural differences (Moll, 1990), resistance to learning (Krogness, 1995), and the influences of experiences on the making of meaning. There is also disagreement about the importance of fluency (words read per minute) when readers vary in speed within a text (Flurkey, 1997) or across different genres.

Huey's suggestion that the government rely upon experts to determine effective reading strategies, which are subsequently disseminated by the government, has come to fruition. He might have been surprised that the publication of the report of the National Reading Panel (NICHD, 2000) was met with a litany of scholarly protests and disagreements (Coles, 2000) as well as discussion in the popular press (Metcalf, 2002).

Huey's interest in teacher education, his kinship with John Dewey and progressive education, and his systematic study of reading as a contextualized process point to the contemporary theme of reflection (Schön, 1983) in teacher education and development. We conjecture that Huey would support the idea of teachers understanding their students' out-of-school experiences, available materials, and quality children's literature as vehicles for making instruction culturally responsive and relevant. His views of reading research and pedagogy are still present in the continuing debates about how best to teach children to read, the purposes of reading, and the connections between reading instruction and subsequent literacy activity within and beyond the walls of the school.

Reflection Questions

- 1. Huey believed that reading instruction should be based upon the interests and experiences of children. Because children enter schools with a wide variety of out-of-school experiences, how might classroom teachers develop reading programs that value the diversity of all students?
- 2. Huey emphasized the need for keeping phonics instruction separate from reading instruction. What might be the advantages and disadvantages of such instruction?

- 3. How might an emphasis on phonics during reading instruction have an impact on comprehension?
- 4. Given Huey's views on the importance of meaning making in reading instruction, how might Huey suggest that we assess comprehension?
- 5. What are some possible relations between a reader's use of visual cues and his or her use of syntax and semantics?

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