How Readers Process Chinese Orthography: Text, Language, and Culture

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Education and literary interest in Chinese reading is not new. Speeches or ideas about reading are found in Chinese classics as early as 2000 years ago. However, systematic study of Chinese reading did not begin until experimental psychologists started to examine it from the perspective of language processing. In addition to various experimental paradigms, cognitive psychology has led to a focus in reading research on lexical processing in relation to word/character recognition (Tzeng, 2002). Specifically, how visual-orthographic and phonological information of a written character contribute to character identification and meaning activation represents the single most widely studied topic in research on Chinese reading (Tzeng, Hung, Lee, & Chang 1996; Tan & Perfetti, 1997; Spinks, et al., 2000; Wong & Chen, 1999; Zhou & Marslen-Wilson, 1999; Zhou, Marslen-Wilson, Shu, 2013).

Due to the great emphasis on phonology and orthography in character/word recognition, the role of phonological and morphological awareness is a major focus of discussion on reading acquisition of Chinese. As a parallel to phonemic awareness in reading English, phonological awareness in Chinese has been defined as the insight into the structure and function of the phonetic component of semantic-phonetic compound characters (Shu, Anderson, & Wu, 2000). Some also define it as the ability to acquire the information about pronunciation of characters at three levels: syllable, onset and rime,
and tone (Chen, et al., 2004). In contrast, morphological awareness refers to the insight into the relationship between spoken and written language at the level of the morpheme in Chinese in some studies (Nagy et al., 2002). Up to date, a number of hypotheses have been proposed to account for the role of phonology and morphology knowledge in learning to read Chinese.

Evidence from some experimental studies shows that in reading and writing, phonological awareness is not a primary cause of differences in reading ability among children learning to read Chinese (Huang & Hanley, 1994; Taylor, 2002; Nagy et al., 2002). However, opposite evidence is also collected in other experimental studies. For instance, some scholars claim that phonological knowledge is important in the process of learning the Chinese OPC (orthography-phonology correspondence) rule (Ho & Bryant, 1997). Others even say that when readers encounter an unfamiliar character, they first try to use a phonological cue, and then they use other cues if the pronunciation does not sound right (Wu & Anderson, 2004). For reading instruction, it has been argued that “it is just right” to focus on mappings between scripts and sounds due to the “universal principle of reading” (Ho & Bryant, 1997; Anderson & Li, 2006; He, Wang, & Anderson, 2005; Perfetti, 2003).

In spite of the contradictions among findings of the above studies, they share certain common characteristics. First, these studies view Chinese reading as a linear process of identification stroke-by-stroke or character-by-character, implying that character recognition is “the foundation of the Chinese reading process.” Second, these studies are mainly conducted in language laboratory settings, in order to examine how quickly and accurately readers can identify nonsense-characters from actual characters or
how well readers identify characters in character lists, sentences, or passages that have been constructed specifically to test the phenomena under investigation. Thus the reading materials used in these studies are basically artificial texts, rather than complete and authentic ones. More subtly, the findings of these studies have been used to support the so-called “universal principle of reading” (Perfetti, 2003), which claims that reading is a universal process of character/word recognition.

Without mentioning the problem of the theoretical assumption underlying the character/word recognition research, one drawback of such research is the lack of attention to the characteristics of the Chinese writing system. For instance, it has been assumed that words are the accessing units in reading Chinese. However, the fuzziness of the notion of the word in Chinese remains a critical issue that should be clarified. Although words are identifiable building blocks in alphabetic languages, they are not the basic units for ideographic languages like Chinese. The word is far from well defined in Chinese linguistics. Another example is the role of context in reading Chinese. According to research under the character/word recognition view, context does not play a crucial role in the reading process. In fact, the meaning of a Chinese character is highly context-based and the meaning of any character is quite vague without a context.

Another drawback of the research based on the character/word recognition view is that the data used as evidence is mainly gained from laboratory experiments, which does not explain real readers’ reading of complete and authentic Chinese texts in natural settings.

The issues mentioned above concerning research on Chinese reading actually reflect the deficiencies of research paradigms applied in the field. As the oldest living
writing system, Chinese writing has been continually and successfully used for approximately 4000 years (Qiu, 2000). However, the process of Chinese reading--how readers transact with authentic Chinese texts-- has rarely been studied in relation to the “highly semantic” nature of the Chinese writing system. On the one hand, the Chinese language has been regarded as an antique antecedent of alphabetic languages. On the other hand, Chinese reading data has been purposely used to prove a “universal grammar of reading” (Perfetti, 2003) without considering the characteristics of the language. It seems that both Chinese language and reading have been viewed from a perspective of alphabetic languages, rather than a perspective of the Chinese language itself.

Instead of looking at Chinese reading from a perspective of the character/word recognition view, in this study, I present a holistic and meaning-centered view of Chinese reading in relation to the transactional socio-psycholinguistic model and theory of reading, writing, and written texts (Goodman, 1994, 1996, 2003, 2014, 2016). According to the transactional model, I relate Chinese reading to the culture in which it is embedded, because the purpose for reading and what to read are determined and conditioned by social conventions. I also relate Chinese reading to the writing system as reflected in written texts, because reading is a language process. I argue that this view of Chinese reading is not only rooted in Chinese social-cultural tradition which favors yi (meaning; essence; spirit; interior) rather than xing (forms; formats; outer), it is also demanded by the Chinese writing system which is highly semantic. Further, I use data collected in a Chinese miscue study to show that the meaning-centered view of reading actually explains how real readers transact with authentic Chinese texts, as represented by the readers’ oral reading miscues.
In particular, I ask three questions: (1) How is reading viewed in Chinese rhetoric and aesthetic tradition? (2) What reading strategies does the Chinese writing system demand in consideration of the “highly semantic” nature of Chinese scripts? and (3) What reading strategies do readers actually use in their reading process as reflected in their miscues while orally reading a Chinese text?

I propose three principles:

First, written Chinese texts evoke certain strategies that require readers to focus more on the meaning rather than the surface features of the texts.

Second, the Chinese writing system activates a semantic-centered reading strategy that requires readers to have a stronger reliance on the context than small language units, because it is governed to a large extent by considerations of “idea-joining,” rather than “form-agreement” (Shen, 1992).

Third, as a part of a culture that is extremely rich in literature and other art forms, in Chinese reading, readers make use of the “power of mind/heart” to savor, to think, to appreciate, and to construct the yi (concepts; meanings; ideas; functions; inner) of texts beyond yan (characters; words; languages).

In conclusion, I reconfirm that Chinese reading must be viewed from a meaning-centered perspective because readers focus more on the yi (meaning; essence; spirit; interior) rather than the xing (forms; format; outer) in reading Chinese texts.