The influence of cognitive-linguistic skills in Chinese reading comprehension within and beyond the Simple View of Reading

Dora Jue PAN  
The Chinese University of Hong Kong  

Dan LIN  
The Education University of Hong Kong

Abstract

- This study investigated the direct and indirect associations of different cognitive-linguistic skills and Chinese reading comprehension in Hong Kong kindergarteners.
- Non-verbal IQ, cognitive-linguistic skills, word reading, linguistic comprehension, and reading comprehension were assessed among 183 Cantonese-speaking children.
- Our results showed that rapid automatized naming, orthographic knowledge and morphological awareness contributed to reading comprehension via word reading. Morphological awareness and vocabulary knowledge were associated with reading comprehension through linguistic comprehension. Beyond that, morphological awareness still contributed directly to reading comprehension (Please see Figure 1).

Introduction

- The Simple View of Reading (SVR) is somewhat simplistic since both word decoding and linguistic comprehension involve complicated processes (e.g., Ho et al., 2017; Kim, 2017; Yeung et al., 2013; 2016).
- Some basic cognitive-linguistic skills significantly explained reading comprehension across languages, e.g., morphological awareness (e.g., Cain & Oakhill, 2014; Ho et al., 2017; Shu et al., 2006; Verhoeven et al., 2018). They were also associated with word decoding and/or linguistic comprehension (e.g., Fong & Ho, 2017; Song et al., 2015).
- The SVR has been found to be applicable in explaining individual difference in Chinese reading comprehension (Ho et al., 2017; Yeung et al., 2016). Its explanatory power can be strengthened when it is expanded with the addition of other foundational cognitive-linguistic skills.
- This study investigated pathways of relationships between cognitive-linguistic skills and reading comprehension within or beyond the SVR.

Method

- **Control variables**  
  - Age  
  - Nonverbal IQ
- **Independent variables**  
  - Rapid automatic naming (RAN)  
  - Phonological awareness (PA)  
  - Orthographic knowledge (OK)  
  - Morphological awareness (MA)  
  - Vocabulary knowledge (VK)
- **Mediators**  
  - Word reading (WR)  
  - Linguistic comprehension (LC)
- **Dependent Variables**  
  - Reading comprehension (RC)

Results

Table 1 Correlations among all variables

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Note. N= 183. * p < .05; ** p < .01

Discussion and Conclusion

- The SVR was applicable in explaining Chinese reading comprehension in kindergarteners. Word reading played a more important role than linguistic comprehension in Chinese reading comprehension at the kindergarten age.
- With the exception of phonological awareness, the fundamental cognitive-linguistic skills were significantly associated with reading comprehension indirectly via word reading and/or linguistic comprehension with nonverbal IQ statistically controlled.
- RAN and orthographic knowledge contributed to reading comprehension through word reading in Chinese.
- Semantic skills have special contributions in Chinese reading comprehension. Morphological awareness explained reading comprehension indirectly via word reading and linguistic comprehension and had a direct effect on reading comprehension beyond the SVR. Vocabulary knowledge was also found to predict Chinese reading comprehension significantly via linguistic comprehension. This implied that meaning-related skills required for building semantic connections play a central role in contributing to high-level comprehension skills.
- Clarification of the relationships between different cognitive-linguistic skills and reading comprehension would be theoretically important to help understand the nature of reading comprehension. It would also be valuable in enabling teachers, parents, and educators to focus precisely on key predictors in their curricula or day-to-day interactions, to cultivate young children’s reading abilities effectively.

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Contact me: dorapanjie@gmail.com