

○ **ZHU HUA *PHONOLOGICAL DEVELOPMENT IN SPECIFIC CONTEXTS: STUDIES OF CHINESE-SPEAKING CHILDREN***

(CLEVEDON, UK: MULTILINGUAL MATTERS LTD. 2002. PP XII, 218).

Zhu Hua's *Phonological development in specific contexts* states that its ambition is to 'add to the fast expanding body of literature on cross-linguistic studies of language acquisition' (p.1). This book comprises three parts: theoretical descriptions in Chapters 1 and 2, reports of empirical investigations in Chapters 3 to 8, and a general discussion and conclusion in Chapter 9.

Chapter 1 opens with the description of typological universals. Zhu makes efforts to clarify the meaning of 'universals' by inspecting three streams of research on universality: typological universals, universal grammar (UG), and developmental universals. She further points out their respective impact on language acquisition research. Based on the empirical findings she synthesizes, she then comes up with theoretical interpretations of cross-linguistic similarities and differences. She brings to light the concepts of 'the law of irreversible solidarity' and 'markedness' which emphasize the innate nature of language acquisition. 'The law of irreversible solidarity', as described in Jakobson (1968), claims that certain sounds are more basic and central to all human languages and would therefore be acquired earlier than other sounds. Typically, nasals, front consonants, and stops would be acquired earlier because they are found in virtually all languages. In contrast, orals, back consonants, and fricatives are acquired later. The author also touches upon the biological model which stresses the role of articulatory and perceptual maturity in phonological acquisition.

Following the accounts of UG and theories of cross-linguistic contrast, Chapter 2 illustrates the phonological characteristics of Chinese or Putonghua (literally 'common speech'). Special attention is paid to the description of syllables, consonants, vowels, tones, tone sandhi, weak stresses, rhotacisation, and intonation. Zhu elaborates on the relationship between tones and segments. She argues that, as a tone language, Chinese has tones that should be primarily perceived as a suprasegmental feature independent from segmental representation at a phonological level. She then highlights a number of controversies surrounding the description of the Chinese phonological system, the difference between Putonghua and Guoyu (national language) in Taiwan, and the distinction between Chinese and English phonologies.

Chapters 3 to 8 are devoted to presenting the findings of six empirical studies on the acquisition of Chinese phonology. Chapter 3 reports a normative, cross-sectional study of 129 normally developing children and a longitudinal study of four children. It was found that the participants' acquisition of syllabic elements followed the order of: tones; syllable-final consonants and vowels; and syllable-initial consonants. While simple vowels emerged early in development, diphthongs and triphthongs were prone to systematic errors. The acquisition of weak stress and rhotacised features was incomplete even in the oldest children assessed (aged 4;6). Chapter 4 provides information on the sequential development of segmental and suprasegmental features of the children reported in the preceding chapter. The study provides corroborating evidence about the developmental patterns of suprasegmental features of tone, tone sandhi, and weak stress.

Chapter 5 examines the developmental characteristics of the phonological systems of 33 children with functional speech disorders. It was noticed that these children shared some characteristics with their age peers from other language backgrounds. These characteristics were: persistent delayed error patterns; unusual error patterns; variability; restricted phonetic or phonemic inventories; and systematic sound or syllable preference. Chapter 6 features a follow-up study by documenting the phonological development and change in seven of the children with speech difficulties. It is pointed out that the internal speech processing mechanism is responsible for the production or consistent use of atypical error patterns or inconsistent errors.

Both Chapters 7 and 8 examine case studies. Chapter 7 explores the phonological systems of a set of identical Chinese-speaking twins, who, in contrast to singletons, were in a unique language learning situation. The twins were found to display similarities in that they both showed characteristics of delayed or disordered phonological development and shared some error patterns. Moreover, it was suggested that dual phonological representations for some words might exist in their mental lexicon. Chapter 8 is dedicated to a longitudinal case study of the phonological acquisition of a child suffering from severe prelingual hearing impairment. Zhu observes the presence of unusual error patterns in his phonological systems, and claims that hearing impaired children might have difficulty in abstracting knowledge from the mental lexicon about the nature of the phonological system to be learned.

Chapter 9 summarizes the outcomes of the six studies reported in Chapters 3 to 8 and echoes the factual questions and theoretical accounts mentioned in Chapters 1 and 2. Zhu characterizes the developmental patterns and sequences of monolingual Chinese-speaking children by referring to the framework of developmental universals and particulars. She then suggests a number of implications for professional practice by drawing

insights from her major research findings. At the end, she raises several issues of critical importance and maps out the possible direction for future research.

There are some minor flaws in this volume. To begin with, I consider it unnecessary to portray the distinction between Putonghua in China and Guoyu in Taiwan in section 2.12 and the difference between Chinese and English phonologies in section 2.13. Neither section seems in my view to make a useful contribution to the chapter. Another problem is the repeated use of the tasks of picture-naming (as seen in Chapters 3, 5, 6, 7, 8) and picture-description (as seen in Chapters 3, 5, 6, 8). The only exceptions were the longitudinal study which used children-parent interaction (Chapter 4) and the case study which used child-child interaction, child-adult interaction, and single word comprehension task (Chapter 7). Presumably, picture-naming and picture-description were chosen since they work well with toddlers or very young children because of their familiarity to the participants, among other factors. Nonetheless, other options might have contributed more diversified data. We may, as Lieberman (1980) indicated, record children's spontaneous speech in monologues or conversations with their parents or other people so long as they are accustomed to tape recorders and microphones. Regarding the elicitation procedure of the picture-naming task, other than the 'listen and repeat' technique that Zhu adopted, there are others that help elicit spontaneous speech and generate rich data. In their study with children (aged 2 to 6) who acquired English fricatives and affricates, Ingram et al. (1980) mentioned three methods: sentence completion, sentence recall, and imitation. These are some options which Zhu could use to discover the developmental characteristics of her participants.

My major reservation about this book concerns the limited generalizability of its research findings. This problem is due to the 'linguistic uniformity' in the participants recruited, who were from Beijing and represented the populations that claim the Beifang Fangyan (Northern Dialect) as their mother tongue. Zhu appears to have relied on 'convenience or accidental sampling' (MacNealy 1999) for participant selection. A choice like this is understandable so long as the researcher felt that this approach best suited her research goals, and she probably had no other way of obtaining suitable respondents at convenient locations. However, because of the sampling strategy used, the diversity or variation of the phonological systems of children from other dialectal backgrounds was largely ignored. From the viewpoint of interlanguage phonology, the mother tongue has an immense impact on the acquisition of subsequent language or languages (Juffs 1990; Macken and Ferguson 1987). This influence can also be witnessed in children of the eight dialects or regional speech forms which Zhu identifies (p.30). A good example

is the erroneous production of retroflex consonants /tʂ, tʂ^h, ʂ/ and rhotacisation feature in the so-called Taiwanese Mandarin Chinese. Ethnic Taiwanese of the Southern Min and the Hakka Dialects would unconsciously misarticulate those sounds due to the absence of those phonemes in their native languages. Their alternative pronunciations, constantly labeled as ‘nonstandard’ variations of the official Gouyu, suggest the strong influence of the mother tongue. For this reason, we must be very careful about generalizing the research outcomes beyond the samples Zhu chose.

Despite the above-mentioned weaknesses, there is much to appreciate about this book. It is a well-organized volume containing thorough analyses of many critical aspects of the acquisition of Chinese phonology. One of its greatest strengths is the presentation of many types of empirical evidence of phonological development of normal and abnormal children. In a skillful manner, Zhu endeavours to provide a productive evaluation of paradigms and frameworks about phonological acquisition in general and the acquisition of Chinese phonology in particular. Her work adds valuable information about the phonological development norms of native Chinese-speaking children to the field. And by that criterion, Zhu has succeeded amazingly well. Personally, I particularly like her study of twins as reported in Chapter 7. To my knowledge, this case study is probably the first of its kind that features the development and use of ‘twin Chinese’, as a sub-set of ‘twin language’. For years there has been a consistent under-representation of studies on the phonological acquisition of Chinese, the language with the largest number of native speakers in the world. I am delighted that this shortage is now remedied to some extent by the publication of this text. It makes an important contribution to the field of language acquisition and Chinese phonology.

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REFERENCES

- Ingram, D.; Christensen, L.; Veach, S.; Webster, B. 1980. 'The acquisition of word-initial fricatives and affricates in English by children between 2 and 6 years'. In *Child phonology*, volume 1: Perception, edited by Yeni-Komshian, G. H.; Kavanagh, J. F.; Ferguson, C. A. New York: Academic Press.
- Jakobson, R. 1968. *Child language, aphasia and phonological universals*. The Hague: Mouton.
- Juffs, A. 1990. 'Tone, syllable structure and interlanguage phonology: Chinese learners' stress errors'. *International review of applied linguistics in language teaching* 28 (2): 99–117.
- Lieberman, P. 1980. 'On the development of vowel production in young children'. In *Child phonology*, volume 1: Perception, edited by Yeni-Komshian, G. H.; Kavanagh, J. F.; Ferguson, C. A. New York: Academic Press.
- Macken, M. A.; Ferguson, C. A. 1987. 'Phonological universals in language acquisition'. In *Interlanguage phonology: The acquisition of second language sound system*, edited by Ioup, G.; Weinberger, S. H. Rowley, MA: Newbury House.
- MacNealy, M. S. 1999. *Strategies for empirical research in writing*. Needham Heights, MA: Allyn and Bacon.