Chapter One

Introduction

1.1 Motivation

The order in which children acquire various *wh*-questions has been widely discussed in the past few decades (Bloom et al. 1982, Carins & Hsu 1978, Clancy 1989, Ervin-Tripp 1970, Ingram 1972, Tyack & Ingram 1977). It has been generally found that questions with *what, who,* and *where* are more easily comprehended and correctly responded than those with *why*, *how,* and *when* questions. Besides, the more easily understood wh-questions are also produced at early stage. The acquisition order of wh-questions has been accounted by the cognitive complexity.(e.g., Clancy 1989, Ervin-Tripp 1970, Tyack & Ingram 1977). The concepts that encode concreteness such as person, objects and places develop earlier than those abstract concepts, such as manner, causality, and time. As indicated by Slobin (1973), if cognitive development follows a universal sequence, then the order of acquisition of a given concept should be constant across all languages. In so, the acquisition of wh-questions of Mandarin Chinese should follow the same line as well.

Among all of the wh-words in Mandarin Chinese, *zenme* is one of the most interesting ones since *zenme* questions are ambiguous, as shown in (1), when it be interpreted as a question asking 'how' (the manner reading) or a question asking 'why' (the causal reading).

(1) Ni zenme xie xiaoshuo?
you how/why write novel
'How do you write novels?'
'Why do you write novels?' (Li &Thompson 1981)

However, when *zenme* occurs sentence-initially as in (2), the manner meaning (i.e., a

‘how' question’) is banned. This is because the manner adverb *zenme* meaning ‘how ’can only occur before the verb, but the adverb *zenme* meaning ‘why’ can either occur pr-verbally or sentential-initially.

(2) Zenme ni bu qu shang ke?
why you NEG go attend class
‘Why aren’t you attending your class?’

When the modal verb *hui* co-occurs with *zenme*, the ambiguity disappears. When *zenme* occurs before *hui*, only the causal reading can be obtained, as shown in (3). Likewise, when *zenme* occurs after *hui*, only the manner reading can be obtained, as shown in (4).

(3) Lisi zenme hui chuxian? (causal reading)
Lisi how will show up
‘How come Lisi showed up?’

(4) Lisi hui zenme chuxian? (manner reading)
Lisi will how show up
‘How will Lisi show up?’

Even though there have been many studies on the acquisition of wh-questions (Bloom et al. 1982, Carins & Hsu 1978, Clancy 1989, Erreich 1984, Ervin-Tripp 1970, Fahn 2003, Ingram 1972, Rowland & Pine 2000, Tyack & Ingram 1977, Valian & Casey 2003), not much research is done on the acquisition of wh-questions by Chinese-speaking children. Therefore, the purpose of the present study is to probe into the developmental comprehension and production in the case of *zenme* questions, particularly focusing on the ‘how’ and ‘why’ meanings of the Chinese wh-word *zenme* and its interaction with the modal *hui*.

1.2 Theoretical Background

In this section, we will present some language acquisition issues that are related to the present study. These issues are markedness, agnecy, age effects and task effects.

1.2.1 Markedness

"Markedness" is defined in terms of frequency cross-linguistically (Eckman 1977, Jakobson 1968), as defined by Eckman in (5):

(5) A phenomenon A in some language is more marked than B if the presence of A in a language implies the presence of B; but the presence of B does not imply the presence of A.

For example, Korean has only voiceless obstruent phonemes, and English has both voiced and voiceless obstruent phonemes. However, no languages only have voiced obstruent phonemes. According to the definition as in (5), the voiced obstruent phonemes are marked, and their presence implies the presence of voiceless obstruents, but not vice versa. According to Jakobson (1968), there are regular relationships between the distribution of speech sounds cross-linguistically and the order in which different sounds are acquired. In other words, the more marked forms are acquired later than those unmarked.

Syntactically speaking, the markedness effect on language acquisition can also be observed. In sentences (6a) and (6b), there are two NPs in the verb phrase, the goal *the school* and the theme *the book*.

(6) a. John gave the book to the school.

b. John gave the school the book. (Goodluck 1991)

With a suitable verb, the syntactic frame of (6a) can occur more freely than (6b). For example the verb *donate* cannot occur in the syntactic frame of (6b). Therefore, it is generally agreed that the NP PP form as in (6a) is more unmarked than the NP NP

form as in (6b). The prediction that the NP NP form is acquired later than the NP PP form is confirmed by Cook (1976), in which the NP NP form is more difficult to comprehend than the NP PP form.

1.2.2 Agency

A semantic hierarchy for the subject position has been noticed: *agent* > *recipient/benefactive* > *theme/patient* > *instrument* > *location* (Givon 1984). Some results of the previous studies have shown this hierarchy in preschoolers' comprehension and production. When interpreting a noun-verb-noun sentence with these two nouns which are either both animate or inanimate, preschoolers tend to take the first noun as an agent and the second noun as a patient (Bever 1970). For example, a passive sentence like *The car is bumped by the lorry* would be understood as the car is bumping the lorry. Slobin's study (1982) on the acquisition of Turkish showed a similar pattern. With the presence of the direct object suffix, the youngest children tested could interpret the sentences accurately, which were presented to them in six possible word orders of subject, verb, and object. When uninflected strings of sentences are presented, the older children tended to choose the first noun as agent. For production, Angiolillo & Golden-Meadow (1982) asked young children to describe what they saw after six different entities participated in transitive actions. Each animate entity and inanimate entity served agents and patients. Their results showed that the children used both animate and inanimate agents occur pre-verbally, and patients, animate or inanimate post-verbally. Therefore, the semantic hierarchy may also provide a prediction for the order of acquisition. The construction with an agent subject is earlier to acquire.

1.2.3 Age Effects

There seems a natural tendency that the complexity of language influences children's comprehension and production at different ages. For example, at the age of one, young children can produce one word, which may present more than one meaning; when they enter the two-word stage at the age of around three, the semantic relations are established; when they are four, most of their utterances are intelligible to strangers (Lenneberg 1967). In the past three decades, it has been found that all aspects of normal children's language become more and more adult-like as their age increases (Myerson 1975, Papandropoulou & Sinclair 1974, Pearson 1990, Pease 1986, Prather et al. 1975, Smith & Sachs 1990). Some recent studies further show that age is a determining factor for influencing first language acquisition. For example, in investigating the acquisition of Chinese relative clauses, Cheng (1995) found that older children produced more headless relative clauses than younger children. In Chen's research (2006) on Chinese-speaking Children's use of cohesive devices, older children outperform younger ones in comprehending conjunctions and producing more specific connections to express the relations between clauses than younger ones. Huang (2007) finds that 5-year-olds and 4-year-olds show significantly better ability in dealing with classifiers than 3-years-olds. Therefore, in the present study, age will be also discussed and investigated.

1.2.4 Task Effects

The last issue we will discuss in the present study is task effects. In order to investigate children's comprehension and production, a comprehension task and a production task will be designed. It is necessary to see the interpretation of these two kinds of tasks on language acquisition. It has been assumed that comprehension is

prior to production[1] (Bates et al. 1988, Benedict 1979, Gerken & Shady 1996, Goldin-meadow, Seligman, & Gelman 1976, Mills, Coffey, & Neville 1993, Oviatt 1980). Therefore, when young children produce a form today, this form may be part of their grammar in the past. In the present study, this language development model will also be discussed.

1.3 Research Questions

According to the theoretical background reviewed above, the present study aims to address the following research questions:

1) Which interpretation of *zenme* with *hui* is easier, manner or causal?
2) How does the agency of a subject influence the Chinese preschoolers' acquisition of *zenme* questions?
3) Do preschoolers of different age groups perform significantly differently on *zenme* questions?
4) Do Chinese preschoolers perform the same on comprehension and production tasks in acquiring *zenme* questions?
5) Do Chinese children show any general production patterns of *zenme* questions, and what are the types they tend to use when forming manner and causal questions?

1.4 Significance of the Study

Indeed, there has been much research on children's acquisition of wh-questions (Bloom et al. 1982, Carins & Hsu 1978, Clancy 1989, Erreich 1984, Ervin-Tripp 1970, Fahn 2003, Ingram 1972, Rowland & Pine 2000, Tyack & Ingram 1977, Valian &

[1] Actually, there is another voice that sometimes production precedes comprehension. It is possible for children to use structures correctly in a limited way without knowing everything about the structure (Hoff 2005).

Casey 2003). Nevertheless, studies on Chinese-speaking children have been very few. Furthermore, most of the previous studies put their emphasis on the acquisition order of *wh*-questions in general, and the difficulty of 'how' in English has not been much discussed yet, and neither have the *zenme* questions. Therefore, the present study is significant in that it can fill the gap of language acquisition of *wh*-questions across languages. Besides, it is hoped that the present study can provide a closer look at the acquisition of manner and causal questions by examining the acquisition of *zenme* questions.

1.5 Organization of the Thesis

This thesis is organized as follows.

Chapter Two discusses the linguistic properties of *zenme* with *hui* and a classification of *zenme* with *hui* according to the agency of the subject and the conditions *zenme* questions occur in. Besides, two theoretical studies on *zenme* and the related meanings of *zenme* are reviewed, along with three empirical studies on the acquisition of wh-questions. Chapter Three reports the experimental design of the study. The subjects, methodologies, materials, a pilot study, the experimental design of the formal study, and scoring will be presented. Chapter Four presents and discusses the results of the present study. Finally, Chapter Five summarizes the major findings, presents the limitations of the study and provides some suggestions for future research.