

CHAPTER 1

INTRODUCTION

1.1 Introduction

This thesis employs the Optimality Theory to explore the interactions of language and music in Jiang Kui's verses. The main goal of the study is to provide a theoretical account for the requirements of verse formats, known as *cipai*, regarding the numbers of stanzas and syllables, rhyming positions, and tonal patterns. The language arrangements in Jiang's verses are under the influence of music and can be predicted by a set of ranked constraints.

The study on language and music has aroused several researchers' interests. Lerdahl and Jackendoff (1983) propose a formal generative theory of tonal music and a series of grouping rules to constitute music segments. They consider language and music both contiguous sequences of pitch-events, which must be exhaustively parsed into smaller groups. The enlightenment from non-linear phonology (cf. Liberman 1975; Liberman and Prince 1977; Selkirk 1984; Hayes 1984) contributes to the

construction of tree structures with head-dependent constituents in different music domains. Gilbers (1987) also points out the similarities of language and music and suggests that the rhythmic variability of language and music can be explained by the same theory. Gilbers and Schreuder (2002) confirm the findings in Lerdahl and Jackendoff's music theory, arguing that the well-formedness of music outputs is determined by preference rules.

In addition to the similarities of language and music, the language-music mapping is interesting in that music and language may match or mismatch in terms of structure, rhythm, and tonal shapes. When language and music integrate, the formal structure has to be mapped so that the grouping of sounds shares the same basis. The rhythmic patterns of language and music must be in accordance so that the rhythm in metrics can be retained in music. Likewise, the tonal shapes of language and music may show some correspondence to achieve harmony.

In this thesis, I investigate Jiang's verses in music, especially in the aspects of structure, rhythm, and tonal shapes. The reason for choosing Jiang's verses is that the ancient scores of his seventeen verses are complete and considered more reliable than those of other versifiers'. The examination on Jiang's verses deals with several issues. First, what are the tendencies of language and music mapping in structure, rhythm, and tones? Second, what are the constraints that determine the outputs of verses in

music form? On what conditions are some constraints re-ranked or inactivated? Third, what are the implications of the correspondence of language and music? What are the metrical and musical grammars in Jiang's composition?

The organization of this thesis is as follows: Chapter 1 introduces the basic information on Song verses and the relevant knowledge about ancient music notations. Chapter 2 reviews previous research on the similarities of language and music, the theoretical background of the study and the application of OT in music-related research. Chapter 3 provides a corpus-based analysis on Jiang's verses and generalizes the tendencies of structural, rhythmic and tonal realizations. Chapter 4 offers a theoretical account for the findings obtained in Chapter 3. Chapter 5 concludes this thesis and discusses some further issues.

1.2 Song Verses

1.2.1 Verse Formats

Song verses, also known as *changduanju* (長短句) 'long and short lines', are lines set into music for the purpose of singing. Following the tradition of Tang verses, Song verses retain the restrictions on tonal patterns and rhymes. However, because Song verses are composed by filling in existing tunes, the verse lines are mostly of different lengths.

The composition of verses is based on certain verse formats, named *ci pai* (詞牌). The titles of these verse formats refer to the music tunes of the verses, such as *Po Zhen Zi* (破陣子) ‘Dance of the Cavalry.’ Every verse format includes regulations on the numbers of syllables and lines, tonal patterns, rhyming positions, and so on. Therefore, regardless of versifiers’ knowledge about music, every verse can be well-formed as long as the requirements in verse formats are fulfilled.

Here, a verse format is exemplified in (1). *Po Zhen Zi* refers to the tune of this verse, which is composed of 62 syllables with two stanzas. The tonal category of each syllable is indicated by E and O, meaning Even tone and Oblique tone respectively. X refers to the positions that can be filled in by either Oblique or Even tone. The positions of caesuras and rhymes are also included in the verse formats.

(1) Tune: *Po Zhen Zi* (破陣子) ‘Dance of the Cavalry.’ (2 stanzas, 62 syllables)

OOEEXO (caesura)

XEXOEE (rhyme)

XOXEEOO (caesura)

XOEEXOERhyme)

XEXOERhyme)

OOEEXO (caesura)

XEXOEE (rhyme)

XOXEEOO (caesura)

XOEEXOERhyme)

XEXOERhyme)



The classification of Songverses is determined by length, tempo, the number of syllables, the number of stanzas, and style. Short verses in fast tempo are small reams. Long verses in slow tempo are named slow verses. In terms of the number of syllables, verses composed of no more than 58 syllables are referred to as small reams as well, those including 59 to 90 syllables are moderate verses, and those containing more than 90 syllables are long verses. As far as the number of stanzas is concerned, there are unitary, binary, trinary, and quaternary verses. Finally, in the aspect of style, verses are usually described as graceful and restrained or bold and unconstrained.

1.2.2 Ancient Music Notations








The analysis on Jiang's verses is based on the ancient scores in the system of *suyue ji pu* 'notations of popular music' provided in Song: Jiang Kuei Ci Yue Zhi Yan Xi [Research on Jiang Kuei's Verses] (Lin 1992). Basically speaking, there are ten primary symbols used to indicate different music scales. The ancient notations are presented with their corresponding scales in the stave in (2).

(2) Ancient Notations and the Corresponding Music Scales

The image shows a musical staff in 2/4 time with a treble clef. The notes are: C4, D4, E4, F4, G4, A4, B4, C5, D5, E5, F5, G5, A5, B5, C6. Below the staff, ten ancient symbols are aligned with the notes: 厶, ⊙, マ, ⊖, -, 么, <, ^, ⊗, ㄗ, ⊕, 川, 久, ⊕, ㄗ, ㄗ.

In addition to the musical notations, secondary symbols are used to modify music melodies and rhythm. These secondary symbols are marked under or beside the primary notations to indicate pauses or grace notes. For example, the notations of  and  in example (3) are notations with rhythmic variations.

(3)

F(Fa) ¹	A(La)	G(So)	F(Fa)	C(Do)	E(Mi)	F(Fa)	(modern scales)
							(ancient notations)
好	花	不	與	殫	香	人	
<i>hao</i>	<i>hua</i>	<i>bu</i>	<i>yu</i>	<i>ti</i>	<i>xiang</i>	<i>ren</i>	
good	flower	not	given	fatigue	scent	person	

Beautiful flowers can not be appreciated to the fullest by people addicting to flowers like me.

¹ The correspondence between letter names and solfege is as follows: C = Do, D = re, E = Mi, F = Fa, G = So, A = la, B = ti, and C = Do.