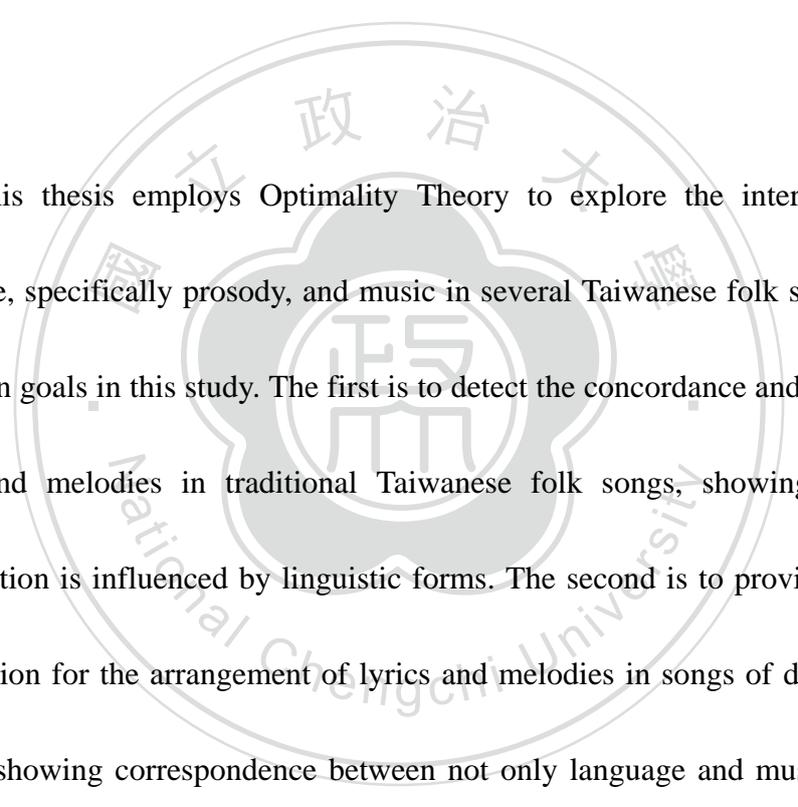


CHAPTER 1

Introduction



This thesis employs Optimality Theory to explore the interaction between language, specifically prosody, and music in several Taiwanese folk songs. There are two main goals in this study. The first is to detect the concordance and compromise of lyrics and melodies in traditional Taiwanese folk songs, showing how musical composition is influenced by linguistic forms. The second is to provide a theoretical explanation for the arrangement of lyrics and melodies in songs of different musical genres, showing correspondence between not only language and music but between different musical versions.

The parallel structures between two human cognition capacities—language and music—have been noticed in the literature of linguistics (Jackendoff & Lerdahl 1980, Lerdahl & Jackendoff 1983, Gilbers & Schreuder 2002, Schreuder 2006). Many researchers have shown the innateness and universals of language and music.

Jackendoff (1989) and Pinker (1997) believe that musical grammars, like linguistic grammars, are constructed on the basis of our innate knowledge. Lerdahl and Jackendoff (1983) claim that both language and music structures are hierarchically formed and can be exhaustively parsed into smaller units. They also propose the existence of universal rules in musical grammars and of finite set of rules which can in turn generate infinite set of music structure.

In addition to the similarities between language and music, the mapping relationship between the two has been investigated (Gilbers & Schreuder 2002, Hsu & Kao 2003, Yen 2004, Song 2006, 2008). Though music is considered a type of art, it is not composed randomly. Instead, the musical representation can reflect linguistic features in a certain degree. These two forms may match in terms of metrical structure, rhythmic pattern, or tonal fluctuation in order to perform harmony.

As Yang (1988) indicates the melody of music is the extension and imitation of linguistic tones; thus, the fluctuation of music pitch is closely related to that of linguistic tones. The target language of this study, Taiwan Southern Min, has seven tones, and has high tendency of tone sandhi. In addition, most traditional Taiwanese folk songs are composed from lyrics to tunes. That is, the lyrics are created first and the music tunes are produced later (Yang 1998). Consequently, the intimate relationship between language and music in traditional Taiwanese folk songs is

worthy of noticing.

To prove the influence of language on music or vice versa, four traditional Taiwanese folk songs will be analyzed in this study, including *chhiu hong ia u* ‘autumn night sorrowfulness’, *bang tshun hong* ‘embrace spring breeze’, *su kui ang* ‘all seasons red’ and *ho pin tshun bang* ‘the spring dream by the riverside.’ These songs will be investigated in terms of the prosodic mapping between lyrics and musical notes. Under the framework of Optimality Theory, it is assumed that there is a set of ranked constraints that determines the optimal representation of a music piece. Just as language, the grammars of different musical genres lie in constraint rankings. In other words, as different music styles are implanted, the constraint ranking may be altered, resulting in different musical outputs. To compare the constraint rankings in different musical genres, the adapted versions, Rock and R&B, of *chhiu hong ia u* ‘autumn night sorrowfulness’ will be examined in detail. To see the delicate adaptation from the traditional version to the modern version, the metrical and musical structures of the R&B version of *bang tshun hong* ‘embrace spring breeze’ will also be scrutinized.

The issues that will be dealt with in this study include the following. First of all, what are the common features existing in traditional Taiwanese folk songs? Do the features reflect the linguistic characteristics of Taiwan Southern Min? Second, what are

the constraints that determine the output representation of musical forms? How do pitches and tone shapes influence the interaction of language and music? Third, for the purpose of comparing different ways of musical composition, songs of popular music styles, such as Rock and R&B music, will be taken into consideration. Do the features of Rock and R&B music introduce new musical constraints? How do they interact with linguistic constraints? Is it possible to explain the variation by changing the ranking of the constraints?

The organization of this thesis is as follows: Chapter 1 gives a sketch of this study and raises some research questions. Chapter 2 reviews the main frameworks used in this study and previous research about the application of OT on the interaction between language and music. Chapter 3 provides a clear description of Taiwanese folk songs, as well as a theoretical account for the interaction of lyrics and melodies. Chapter 4 discusses features of Rock and R&B music and examines the adapted versions of *chhiu hong ia u* ‘autumn night sorrowfulness.’ Chapter 5 focuses on metrical and musical structures by investigating two versions of *bang tshun hong* ‘embrace spring breeze’. Chapter 6 is the conclusion.