

# Table of Contents

<b>Chapter 1. Introduction</b> .....	1
1.1 Theoretical Background.....	1
1.2 Music Universals and the Innateness of Language and Music.....	3
1.3 Parallels Between Language and Music.....	4
1.4 Data.....	8
1.5 Comparison of Different Music Genres.....	8
<b>Chapter 2. A Generative Theory of Tonal Music</b> .....	10
2.1 Brief Introduction to GTTM.....	10
2.2 Examples of Chinese Folk Songs.....	12
2.2.1 Musical Surface.....	12
2.2.2 Grouping Structure.....	13
2.2.2.1 Introduction to Grouping Structure.....	13
2.2.2.2 Analysis of the Grouping Structure in Chinese Folk Songs.....	15
2.2.3 Metrical Structure.....	21
2.2.3.1 Introduction to Metrical Structure.....	21
2.2.3.2 Analysis of the Metrical Structure in Chinese Folk Songs.....	22
2.2.4 Time-span Reduction.....	26
2.2.4.1 Introduction to Time-span Reduction.....	26
2.2.4.2 Analysis of the Time-span Reduction in Chinese Folk Songs.....	28
2.2.5 Prolongational Reduction.....	30
2.3 Conclusion.....	31
2.4 Strengths and Weaknesses of GTTM.....	31
<b>Chapter 3. An Optimality Theory Analysis of Chinese Folk Songs</b> .....	33
3.1 Grouping Structure in Chinese Folk Songs.....	33
3.2 Metrical Structure in Chinese Folk Songs.....	40
3.3 Comparison With Other Music Genres.....	47
3.3.1 Grouping Structure in Western Tonal Music.....	48
3.3.2 Metrical Structure in Western Tonal Music.....	51
3.3.3 Conclusion.....	54
3.4 Resemblances and Differences Between Language and Music.....	54
3.5 Comparison With Other Analyses.....	56
3.5.1 Comparison With GTTM.....	56
3.5.2 Comparison With Other OT Analyses of Music.....	57

<b>Chapter 4. An Experiment of Musical Grouping</b> .....	58
4.1 Task.....	58
4.2 Participants.....	58
4.3 Design and Materials.....	59
4.4 Procedure.....	62
4.5 Results and Discussion.....	62
4.5.1 Constraints and Ranking.....	64
4.5.2 Comparison of Groups.....	67
<b>Chapter 5. Conclusions</b> .....	69
<b>References</b> .....	70
<b>Appendix 1: Sample Musical Pieces</b> .....	73
1.1 四季紅.....	73
1.2 一隻鳥仔孝啾啾.....	74
1.3 補破網.....	75
<b>Appendix 2: Numbered Notation</b> .....	76
<b>Appendix 3: Constraints</b> .....	77