

## CHAPTER 5

### Metrical Structure and Musical Structure

As the song *bang tshun hong* gets popular increasingly, it is reinterpreted by many singers, among whom David Tao's R&B version is an outstanding one. The adapted version is not composed randomly; on the contrary, it displays faithfulness to the traditional version. In this section, the traditional version and the R&B version of *bang tshun hong* will be examined in detail under the framework of time-span reduction theory.

#### 5.1 The Time-span Reduction Structure of Traditional Version

As introduced in chapter 2, the basic idea of time-span reduction theory deals with head-elaboration relationship. (Lardahl & Jackendoff 1983). A music piece can be simplified by deleting elaborations without affecting the overall structure of the piece. With the idea of head-elaboration relationship, a time-span reduction tree

(Lardahl & Jackendoff 1983: 115) is given in (1). The relationship between the tree and musical notes is as follows: each musical level is marked by a horizontal slice across the tree, showing only the events whose branches appear in that slice.

(1) *bang tshun hong* 'embrace spring breeze' Line 1

level d

level c

level b

level a

level a (♩)

獨 夜 無 伴 守 燈 一 下 清 風 對 一 面 吹  
tok ia bo phuann siu ting e tshing hong dui bin tshue

level b (♩)

獨 夜 無 伴 守 燈 下 清 風 對 面 吹  
tok ia bo phuann siu ting e tshing hong dui bin tshue

level c (♩)

獨 一 無 守 一 下 清 一 對 一 吹  
tok bo siu e tshing dui tshue

level d (♩)

獨 一 守 一 清 一 吹  
tok siu tshing tshue

The note which has the shortest duration in (1) is the eighth-note, and we label it the smallest musical level (level a). From the horizontal slice at level a, all branches appears, thus all notes are musical heads in the score of level a.

A musical head may become an elaboration and be reduced at the next larger level. According to Lerdahi and Jackendoff (1983), musical heads are acoustically prominent. Thus, at level b, only notes that are directly linked to a syllable are musical heads. For example, *ting* at level a is linked to two musical notes. However, the second note, *ting*, is reduced at level b because it is not linked to any syllable. Likewise, *dui* is reduced to one note at this level.

When the reduction process enters level c, the musical heads are chosen by TSRPR 1, which prefers a head that is in a relatively strong metrical position. As Duanmu (2004) and Hsiao (2006) indicate, Chinese regulated verses and folk verses employ trochaic meter, we also claim the existence of trochaic foot in Taiwanese folk songs. Therefore, the first syllable of a foot is metrically stronger than the second one. At level c, the first syllable of every foot is considered the head; therefore, *tok* is retained and *ia* is reduced.

At level d, in the domain of one measure, the first note is the most stressed, and thus it is chosen as the head.

## 5.2 The R&B Version of *BangTshun Hong*

The score of R&B *bang tshun hong* is given in (2).

(2) R&B version of *bang tshun hong* ‘embrace spring breeze’

### 望春風

李臨秋作詞  
陶吉吉改曲



獨 夜 無 伴 守 燈 下 清 風 對 面 吹

tok ia bo phuann siu ting e tshing hong dui bin tshue



十 七 八 歲 未 出 嫁 登 著 少 年 家 果 然 標 緻

tsap tshit pue hue bué tshut ke tng tio hsiau lian ke koo lian piau tshih



面 面 肉 白 誰 家 人 子 弟 想 袂 問 伊

bin bin bah beh siang ka lang tsu te siunn be mng i



驚 歹 勢 心 內 彈 琵琶

giang phaimn se sim lai tuann pi pe

In (3), the time-span reduction process of the first metrical line is provided.

(3) R&B version *bang tshun hong*, Line 1

level d

level c

level b

level a

level a (♩)

獨 夜 無 伴 守 燈 下 清 風 對 面 吹  
tok ia bo phuann siu ting e tshing hong dui bin tshue

level b (♩)

獨 夜 無 伴 守 燈 下 清 風 對 面 吹  
tok ia bo phuann siu ting e tshing hong dui bin tshue

level c (♩)

獨 無 守 下 清 對 吹  
tok bo siu e tshing dui tshue

level d (♩)

獨 守 清 吹  
tok siu tshing tshue

The time-span reduction process of R&B version is the same as the one in the traditional version. At the smallest level a, all notes are musical heads, and thus no one is reduced. It is worthy of noticing that *ting* and *dui* are assigned triplet, so the three notes are linked together. At level b, only the notes that are directly linked to a syllable are retained, and others are reduced. At level c, the first syllable of every foot is considered musical head for it is in a metrically stronger position.<sup>8</sup> At level d, the first syllable of every hemistich is retained because it is the most stressed.

Compared with the time-span reduction process of the tradition version, the reduced levels from b to e in the R&B version have the same musical representation as those in the traditional version. In other words, the main theme of the traditional version is retained in R&B version. Here we focus on the reduction process from level a to level b in these two versions, which are given in (4), presented by numbered musical notation<sup>9</sup> for ease of comparison.

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<sup>8</sup> The trochaic meter of the traditional version is retained in the R&B version of *bang tshun hong*.

<sup>9</sup> The numbered musical notation is given in Appendix 1.

## (4) The traditional version

H H H H H H (E) H H H H (E) H H

1 • 1 2 4 | 5 4 5 6 - | 1 • 6 6 5 4 | 5 - - - |

獨 夜 無 伴 守 燈 下 清 風 對 面 吹

tok ia bo phuann siu ting e tshing hong dui bin tshue

## (5) The R&amp;B version

H HH H H (E) H E (E) H H H H (E) (E) H (E) H

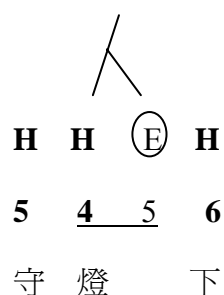
1 • 1 2 4 | 5 4 4 5 4 6 - | 1 • 6 6 5 4 0 4 5 | 5 - - - |

獨 夜 無 伴 守 燈 下 清 風 對 面 吹

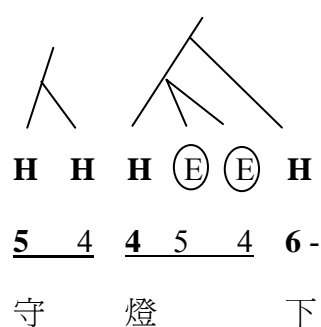
tok ia bo phuann siu ting e tshing hong dui bin tshue

Originally, all notes are heads at the smallest level a. when the reduction process comes to level b, some notes becomes elaborations, as shown in (4) and (5). Although the R&B version has more musical fluctuation, it does not alter the head-elaboration relationship of the traditional version. The musical heads in traditional version are not changed when the song is adapted to an R&B style. Consider the second measure of the two versions in (6) and (7).

## (6) The traditional version



## (7) The R&amp;B version



The pitch events directly linked to one syllable are regarded as musical heads, such as the first, second and the fourth pitch events in (6); those who share a syllable with a previous note are seen as musical elaborations, such as the third pitch events in (6). When the song is adapted to R&B version, the musical heads retain the same pitch values as in traditional version, as the first, third, and the sixth pitch events in (7). The inserted notes, such as the second, and the fifth pitch events in (7), are considered musical elaborations, which do not disturb the main theme of the original version. Sometimes, the elaborations in the traditional version may also be remained after recomposition, so the third pitch event of (6) is retained as the fourth one in (7). In brief, in the process of R&B adaption, the melodic fluctuation is based on the



musical events of the traditional version. Thus, the two different versions can be structurally characterized as a musical theme and its variants.






From the perspective of OT, the correspondence between the traditional and the adapted versions can be confined by the two constraints given in (8) and (9)

(8) **Ident-H**: Given two musical pieces A and B, the pitch values of the musical heads in A are identical to those in B.

(9) **MAX**: Given two musical pieces A and B, the musical notes in A must be correspondents in B.

A line of the R&B *bang tshun hong* 'embrace spring breeze' is analyzed below.

(10)

<p>Base:</p> <p>H H E H</p>  <p>守 燈 — 下</p> <p>siu ting — e</p>	MAX	Ident-H
<p>A.</p>  <p>守 燈 下</p> <p>siu ting e</p>	* !	
<p>B.</p>  <p>守 燈 — 下</p> <p>siu ting — e</p>		* !
<p>C.</p>  <p>守 燈 — 下</p> <p>siu ting — e</p>		
<p>D.</p>  <p>守 — 燈 — 下</p> <p>siu — ting — e</p>		

Candidate A retains the musical head of the traditional version while the elaboration is deleted. Thus, it is ruled out in violation of the MAX constraint. In candidate B, the pitch value of the second syllable *ting* is changed and a new elaboration is inserted, making this syllable linked to three notes. As a result, it

violates the faithfulness constraint Ident-H. In candidate C, the pitch value of the second syllable *ting* remains, and a new elaboration is inserted after the original pitch events. In candidate D, the first syllable is also elaborated without altering the original musical head. Both C and D are possible output candidates since they follow the two constraints, though candidate D is the real output representation.

### 5.3 Summary

This chapter employs the idea of time-span reduction structure to examine the traditional version and the R&B version of *bang tshun hong* ‘embrace spring breeze.’ Along the process of reduction, the two versions correspond in the quarter-note level. It proves that the main theme of the song is retained after R&B adaptation.

From the perspective of OT, the correspondence in terms of the pitch events between the two versions can be defined by the constraints, Ident-H and MAX. With these two constraints, every note that appears in the traditional version must be retained in R&B version and every musical head in the traditional version may not be altered in R&B version.