

CHAPTER 4

Modern Music Styles

In this section, two modern musical styles, Rock music and R&B music, will be discussed in comparison with the traditional folk songs. I will discuss the features of these two modern music styles, and look closely at the Rock and R&B versions of *chhiu hong ia u* 'autumn night sorrowfulness.' Also, I will apply OT to analyze the adapted versions and to examine the output (traditional version)-to-output (Rock and R&B versions) correspondence.

4.1 The Rock Version of *Chhiu Hong Ia U*

4.1.1 Rock Music

Rock music is a form of popular music with a prominent vocal melody, accompanied by electric guitars, bass guitars, and drums. The first type of rock music, rock and roll, originates in the United States in the 1950s, and is largely derived from

music of the Southern American. In the United States, the affluence that followed the end of World War II in 1945 and the emergence of a youth culture—based mostly upon the rejection of older styles of popular culture—contribute to the new music style. Most rock and roll artists write and perform songs about love, sexuality, identity crisis, personal freedom, and other issues that are of particular interest to teenagers.

Rock music has its roots from a variety of sources, primarily blues, R&B, country music and other influences, such as gospel, traditional pop, and jazz. Many elements of African American music have been a continuing source of influence on rock music, so that it has some characteristics including riffs (repeated patterns), backbeats (emphasizing the second and fourth beats of each measure), and call-and-response patterns. All of these influences are combined in a simple, blues-based song structure that is fast, danceable and catchy.

4.1.2 The Rock Version of *Chhiu Hong Ia U*

Based on the original lyrics and melodies of *chhiu hong ia u*, Wu Pai (1995) readapts this song and puts some elements of rock music into it. The score of the rock version is given in (1).

(1) The Rock version of *chhiu hong ia u* 'autumn night sorrowfulness'

秋風夜雨

chhiu hong ia u

周添旺作詞
楊三郎作曲
伍佰改曲

風 雨 聲 音 擾 亂 秋—— 夜—— 靜—— 時 常
hong u sian im jiau loan chhiu ia jeng si siong

6
聽 見 蚪 蚪 啼—— 悲—— 情—— 引 阮 思 鄉 嚙 知 雨 水 冷——
thian kin to un hau pi jeng in un su hong m zai ho chui ling

11
自 恨 自 嘆—— 幸 福 未 完 成—— 啊 啊 前 途 茫 茫——
chu hun chu tham heng hok bi oan seng a a chian to bang bang

15
宛 然 失—— 光—— 明——
oan jian sit kong beng

Compared with the traditional version, the rock version has some different features. First, unlike the slow tempo in the traditional version, the rock song is in Allegro—fast tempo. The major distinction between the two versions lies in beating. Differing from the traditional version, where one measure contains four full beats, the rock version has eight demibeats in a measure. It is the fast beating that makes the

rock music to progress in a lively movement. Second, in term of syllable and note correspondence, similar as the traditional version, there is mostly a one-to-one relationship.

Third, the adapted rock version displays a certain degree of correspondence to the traditional version at the two edges of a metrical line. Consider (2) and (3); the first and last measures of each version are identical.

(2) The first line of the traditional version

風 雨 聲 音 擾 亂 秋 夜 靜

hong u sian im jiau loan chhiu ia jeng

(3) The first line of the rock version

風 雨 聲 音 擾 亂 秋 夜 靜

hong u sian im jiau loan chhiu ia jeng

On the other hand, there are many measure-initial rests in the rock version, especially in the second hemistiches, as indicated in (3). Normally, the function of the rest allows the player to have enough time to breathe and to prepare for the following sound, just like a pause in speech. However, such measure-initial rests prevail over the Rock version. If we examine the whole song carefully, it is found that the rest

marks appear at the metrically weak position, as shown in (4).

(4) *chhiu hong ia u* ‘autumn night sorrowfulness’ Line 4

自 恨 自 嘆—— 幸 福 未 完 成——
 chu hun chu tham—— heng hok bi oan seng——

In rock music, the second and the fourth beats in a measure are stronger, known as backbeats. In (4), the first beat and the third beats are weak, and occur as rests, signaled by drum in Wu’s performance. The rest marks here serve to enhance the rhythm.

4.1.3 An Optimality Theory Analysis

Based on the above observation, an OT analysis is given in this section. Between the Rock version and the traditional version, an output-to-output correspondence is observed. As mentioned earlier, the rock version corresponds to the traditional version at the edges of metrical lines. Thus, an anchoring constraint (Beckman 1998) is given in (5)

(5) **Anchor-Edge:** Given two musical structures S1 and S2, representation of the initial and the final syllables of S1 are anchored to those of S2.

In addition, the major difference between the traditional and rock version is the

usage of measure-initial rest on the second hemistich. A constraint like (6) is needed.

(6) **Align-L (R, M)**: Align a rest to the left edge of a measure.

This constraint leads the constraint “Align-L (H, M)” to be lower ranked in the rock version, because there is a rest in the initial position of a measure and a hemistich cannot be aligned with the left edge of the measure.

With the constraints, consider the line in (7).

(7) *chhiu hong ia u* ‘autumn night sorrowfulness’ Line 1

Base:



風 雨 聲 音 擾 亂 秋—— 夜—— 靜——

hong u sian im jiau loan chhiu— ia— jeng——

Candidate:



風 雨 聲 音 擾 亂 秋—— 夜—— 靜——

hong u sian im jiau loan chhiu— ia— jeng——



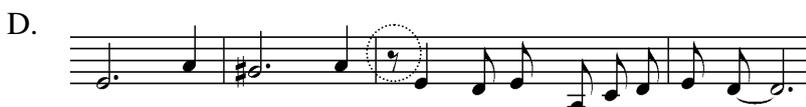
風 雨 聲 音 擾 亂 秋—— 夜—— 靜——

hong u sian im jiau loan chhiu— ia— jeng——



風 雨 聲 音 擾 亂—— 秋—— 夜—— 靜——

hong u sian im jiau loan— chhiu— ia— jeng——



風 雨 聲 音 擾 亂 秋—— 夜—— 靜——

hong u sian im jiau loan chhiu— ia— jeng——

Candidate A is the same as the traditional one. Candidate B has rest marks in the beginning of both hemistiches. Candidate C has a rest in the second hemistich where the first syllable is aligned to the left edge of the measure. Candidate D also has a rest in the second hemistich while the first beat is not aligned to the left edge of this measure. The tableau is given in (8).

(8)

	* $\sigma = \zeta$	Anchor-Edge	Align-L (R,M)	Align-L (H,M)	F= d	* $\sigma = \text{d}$	Uniformity-SN
A			* * !				* * *
B		* !		* *	*		* * *
C	* !		*				* * * *
☞D			*	*	*		* * *

As in (8), candidate C fails because there is a syllable-to-rest mapping in the third measure. Candidate B is removed because the first measure doesn't correspond to that of the traditional version. Candidate A has two violations because no rest is aligned to the left edge of the measures. Candidate D has one violation because the measure of the first hemistich is not left-aligned to a rest. However this violation can be tolerated, since it obeys the highly ranked constraint anchor-edge. As a result, Candidate D is chosen as the best output form.

On the other hand, the occurrence of the rest mark is worthy of noticing. As

mentioned before, rest marks appear at the weak positions, but avoid strong positions, that is, the second and the fourth beats. Thus, another constraint governing the rest marks is proposed:

(9)***R-SB**: A rest mark corresponds to a weak beat.

This constraint is placed at the same ranking as Align-Left (R, M) and outranks the Align-Left (H, M) constraint. Another line of *chhiu hong ia u* is examined in (10).

(10) *chhiu hong ia u* ‘autumn night sorrowfulness’ Line 4

Base:  幸 福 未 完 成—— heng hok bi oan seng——	Align-Left (R, M)	*R-SB	Align-Left (H,M)
A. W S W S  幸 福 未 完 成—— heng hok bi oan seng——	* !	* *	
B. W S W S  幸 福 未 完 成—— heng hok bi oan seng——			*
C W S W S  幸 福 未 完 成—— heng hok bi oan seng——		* !	*

In (10), the base form is a line from the traditional version, and the candidates differ in the insertion of the rest marks. The time signature in Rock version is 8/8. In candidate A, the sixteenth-notes *heng* and *hok* constitute the first beat and the first eighth-rest occupies the second beat. Similarly, *bi* and *oan* constitute the third beat and the second eighth-note is the fourth beat. The rhythmic pattern is marked by W and S above the scores. Candidate A is firstly ruled out because there is no measure-initial rest. Candidate C fails because the second rest appears in strong position. As a result, candidate B wins out.

From the tableaux in (8) and (10), the musical grammar of the Rock version is determined by the following constraint ranking:

(11) $*\sigma_{\downarrow} \gg$ Anchor-Edge \gg Align-L (R, M), $*R-SB \gg$ Align-L (H, M),

$F = \downarrow \gg * \sigma_{\downarrow} \gg$ Uniformity-SN.

4.2 The R&B Version of *Chhiu Hong Ia U*

4.2.1 R&B Music

R&B is the abbreviation of Rhythm and Blues, which is a popular music genre combining jazz, gospel, and blues. It has the following features: First, in most R&B works, every measure contains four beats, and twelve measures constitute a section. It employs backbeats, emphasizing the second and the fourth beats of each measure. Second, there is an abundant of triplets in R&B music, resulting in a feeling of well-knit continuity. Third, some particular skills, including ornaments and glides, are used to a large extent, depending on the singer during the impromptu. Finally, it is common in R&B music that the voice of the singer echoes with the sound of instruments.

4.2.2 The R&B Version of *Chhiu Hong Ia U*

Hong (2000) recomposes the same song in an R&B style. The R&B *chhiu hong ia u* is put in the second album of a R&B singer Hsio Lang Ma Ia. The score is given in (12).

(12) The R&B version of *chhiu hong ia u* 'autumn night sorrowfulness'

秋風夜雨

作詞周添旺
作曲楊三郎
編曲洪敬堯

風 雨 聲 音 擾 亂 秋—— 夜—— 靜—— 時 常
hong u sian im jiau loan chhiu — ia — jeng — si siong

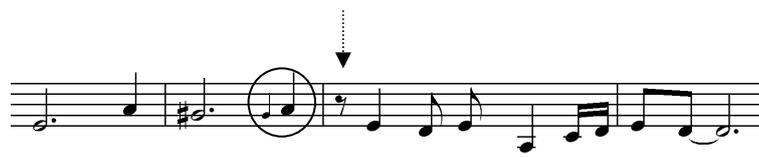
聽 見 蚪 蚪—— 嗒—— 悲—— 情—— 引 阮 思 鄉——
thian kin to un — hau — bi — jeng — in un su hong

嗚 知 雨 水 冷—— 自 恨 自 嘆—— 幸 福 未 完 成—— 啊—— 啊——
m chai ho chui ling — chu hun chu tham — heng hok bi oan seng — a a

前 途 茫 茫—— 宛 然 失—— 光—— 明——
chian to bang bang — oan jian sit — kong — beng

Like the traditional version, the R&B version progresses in a slow tempo; each measure contains four beats and every beat equals to a quarter note. In spite of the similar beating construction, some elements of R&B music are implemented.

First, R&B music is significant for its contour pitch, especially of the final syllable. As a result, the final syllable of each hemistich tends to have glide or contour. Second, like the Rock version, there is often a measure-initial rest in the second hemistich. An Example is given in (13).

(13) *chhiu hong ia u* 'autumn night sorrowfulness' Line 1


風 雨 聲 音 擾 亂 秋 夜 靜

hong u sian im jiau loan chhiu ia jeng

In terms of the mapping between syllables and musical notes, the R&B version is different from the previous two. R&B music is peculiar for its melodic fluctuation, and one syllable may be linked to three or more musical notes. The one-to-three mapping in R&B version is shown in (14).

(14) *chhiu hong ia u* 'autumn night sorrowfulness' Line 4, 5


嘸 知 雨 水 冷

m chai ho chui leng

宛 然 失 光 明

oan jian sit kong beng

Fourth, the foot tempos in the Rock, R&B and traditional versions are differently designed in terms of syllable-beat mapping. Examples of the three versions are provided in (15).

(15) Traditional version

蚪 蚓 哮 悲 情
to un hau bi jeng

宛 然 失 光 明
oan jian sit kong beng

Rock vesion

蚪 蚓 哮 悲 情
to un hau pi jeng

宛 然 失 光 明
oan jian sit kong beng

R&B version

蚪 蚓 哮 悲 情
to un hau bi jeng

宛 然 失 光 明
oan jian sit kong beng

In the traditional and rock versions, *hau* and *bi* have equal duration. Both syllables are assigned one full beats. *Sit* and *kong* also have the same duration. On the other hand, in the R&B version, *hau* and *bi* are of different beating duration. *hau* is assigned 1.5 beats while *bi* has only 0.5 beats. Likewise, *sit* and *kong* do not have equal duration.

4.2.3 An Optimality Theory Analysis

With the above observations, an output-to-output correspondence between traditional version and R&B version is given. First, the R&B also displays faithfulness to the traditional version at the edges of a metrical line. An anchor-edge constraint is given in (16) again.

(16) **Anchor-Edge**: Given two musical structures S1 and S2, representation of the initial and the final syllables of S1 are anchored to that of S2.

Second, the R&B version also displays the measure-initial rest. So, the alignment constraint is also provided in (17). This constraint forces the “align-left (H, M)” constraint to rank lower.

(17) **Align-L (R, M)**: Align a rest to the left edge of a measure.

Third, the beating construction of a foot shown in (15) can be governed by the markedness constraint in (18).

(18) **No Equal Beating Duration (NEBD)**: Given two syllables of the same footing domain X and Y, X is aligned to note A and Y is aligned to note B, the beating durations of A and B cannot be the same.

On the other hand, since the R&B version favors more melodic fluctuation, one syllable is encouraged to map to three or more musical notes; thus, the no one-to-three mapping are ranked lower than one-to-one mapping.

With the above constraints, a line of R&B version is analyzed below.

(19) Base:



風 雨 聲 音 擾 亂 秋—— 夜—— 靜——

hong u sian im jiau loan chhiu— ia— jeng——

Candidates:



風 雨 聲 音 擾 亂 秋—— 夜—— 靜——

hong u sian im jiau loan chhiu— ia— jeng——



風 雨 聲 音 擾 亂 秋—— 夜—— 靜——

hong u sian im jiau loan chhiu— ia— jeng——



風 雨 聲 音 擾 亂—— 秋—— 夜—— 靜——

hong u sian im jiau loan— chhiu— ia— jeng——



風 雨 聲 音 擾 亂 秋—— 夜—— 靜——

hong u sian im jiau loan chhiu— ia— jeng——



風 雨 聲 音 擾 亂 秋—— 夜—— 靜——

hong u sian im jiau loan chhiu— ia— jeng——

⁷ The ornament in the second measure is not the main focus of this study, so it is neglected.

Candidates A to D are the same as the tableau in the rock version and candidate

E differs from D in the way that *chhiu* and *ia* are not of the same length.

The tableau is given in (20).

(20)

	* $\sigma = \zeta$	Anchor -Edge	Align-L (R,M)	NEBD	Align-L (H,M)	F= \downarrow	Uniformity -SN	* $\sigma = \downarrow \downarrow$
A			* * !	*			* * *	
B		* !		*	* *	*	* * *	
C	* !		*	*	*		* * * *	
D			*	* !	*	*	* * *	
☞ E			*		*	*		

Candidate D, the optimal output in the rock version in (8) is ruled out here because *chhiu* and *ia* in the third measure are equally assigned one full beat. Consequently, candidate E wins out.

On the other hand, the R&B version of *chhiu hong ia u* also makes use of backbeats—emphasizing the second and the four beats in a measure. Therefore, the appearance of rest marks is restricted. The constraint *R-SB should be taken into consideration. An R&B version line is evaluated in (21).

(21) *chhiu hong ia u* 'autumn night sorrowfulness' Line 5

Base:  宛 然 失—— 光—— oan jian sit—— kong—	Align-L (R,M)	NEBD	*R-SB	Align-L (H,M)	F= 
A. W S W S W S W S  宛 然 失—— 光—— oan jian sit—— kong—	* !				
B. W S W S W S W S  宛 然 失—— 光—— oan jian sit—— kong—		* !			
C. W S W S W S W S  宛 然 失—— 光—— oan jian sit—— kong—					* !
D. W S W S W S W S  宛 然 失—— 光—— oan jian sit—— kong—					
E. W S W S W S W S  宛 然 失—— 光—— oan jian sit—— kong—			* !		

In (21), the base is a measure from the traditional version. The rhythmic pattern is signaled by W and S above the scores, where a weak beat plus a strong beat constitute one full beat, so there are eight demibeats in a measure. In the R&B version, the second and the fourth demibeats are stressed, so are the sixth and the eighth ones. In this tableau, candidate A is firstly ruled out because there is no measure-initial rest. Candidate B, the best output of the Rock version, is excluded because *sit* and *kong* have the same beating duration. Candidate E fails because the second rest is placed at the position of weak beat. As for candidates C and D, the rest marks are placed at the weak positions. However, the foot containing *sit* and *kong* in candidate C does not correspond to the domain of the half-note, and thus violates the constraint $F = \downarrow$. As a result, candidate D is the optimal output.

From the evaluation of (20) and (21), the musical grammar of the R&B version is governed by the following constraint ranking:

(22) $*\sigma_{\downarrow} \gg$ Anchor-Edge \gg Align-L (R, M), NEBD, $*R-SB \gg$ Align-L (H,

M), $F = \downarrow \gg$ Uniformity-SN \gg $*\sigma_{\downarrow \downarrow}$.

4.3 Summary

This chapter examines two modern music styles, Rock and R&B music. The Rock version of *chhiu hong ia u* ‘autumn night sorrowfulness’ is adapted on the basis of the traditional version. It shows faithfulness to the traditional version, especially at the two edges of a metrical line. This correspondence is confined by the Anchor-Edge constraint. In addition, like the traditional version, there is mostly a one-to-one mapping between syllables and musical notes and no syllable is linked to a rest mark. The Rock music is remarkable for its weak-strong beat pattern; thus, it makes use of many measure-initial rests. As a result, the constraint Align-Left (H, M) is suppressed by Align-Left (R, M). Furthermore, the rest marks are prohibited to appear at the position of strong beats, and this is governed by the *R-SB constraint. From the OT perspective, the musical form of Rock version can be predicted by the following constraint ranking: $*\sigma_{\downarrow} \gg \text{Anchor-Edge} \gg \text{Align-L (R, M)}, *R\text{-SB} \gg \text{Align-L (H, M)}, F = \text{♪} \gg * \sigma = \text{♪} \gg \text{Uniformity-SN}$.

The R&B version of *chhiu hong ia u* also displays faithfulness to the traditional version at the two edges of a metrical line. In addition, as the Rock version, it employs many measure-initial rests as well. The major characteristic that makes the R&B version different from previous versions is the assignment of foot tempos. The syllables of one foot are not assigned equal duration and this is confined by the

constraint of NEBD. On the other hand, R&B music requires more melodic fluctuation, so one syllable is encouraged to be linked to three or more notes. The constraint $*\sigma = \text{♪♪}$ is placed in a relatively lower ranking. The output representation of the R&B version is selected by the following constraint ranking: $*\sigma = \text{♪} \gg$ Anchor-Edge \gg Align-L (R, M), NEBD, $*R\text{-SB} \gg$ Align-L (H, M), $F = \text{♪} \gg \text{Uniformity-SN} \gg * \sigma = \text{♪♪}$.