ELEMENTS IN THE METRICS OF T'ANG POETRY

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1. The metrics of T'ang poetry has been a subject of numerous studies.[1] There would seem to be no reason why one more study on this topic should be added unless something new has been discovered. In what follows, a new approach will be adopted for the study of this old subject, and it is hoped that some new light can thereby be brought upon it.

1.1. It must be made absolutely clear at this point that the term 'T'ang poetry' as is used here does not mean the same thing as it does elsewhere. As we all know, poets of the T'ang dynasty wrote the shīh-poems in two different forms commonly known as the 'Ancient Style' (kŭ t'ǐ 古體) and the 'Modern Style' (chīn t'ǐ 今體 or chìn t'ǐ 近體). I use the term to represent only the latter form. The justification for so doing is that, in my reasoning, only the 'modern style' is a typical creation of the T'ang dynasty, while the 'ancient style,' as the term indicates, is the product of earlier ages. Poems written in the 'ancient style' by poets of the T'ang dynasty and afterwards are, as far as the form is concerned, merely imitations. Seemingly, I am now using the term 'T'ang poetry' in a narrowed sense, but in reality it has now a much broader representation, because it covers not only poems of this form written in the T'ang dynasty, but also those written by people of all the dynasties and of all countries since the T'ang dynasty and conceivably in the future.

1.2. There are two formal features which mark off a T'ang poem from a so-called ancient poem, namely, verbal parallelism (tuì chèng 對仗) and rhythmic regularity (ké lǜ 格律). The former is syntactic, the latter, phonological. The two features are not interdependent, though both are often employed side by side in a T'ang poem. By verbal parallelism is meant the strict matching of the words in the two lines of a couplet. Strictly speaking, it is not a unique feature in T'ang poetry, though it is extremely common there, for it was also found in poems of the earlier ages known as kŭ-lǜ (古律) and kŭ-chüéh (古絕). For a poem to be called a T'ang poem, the only necessary and sufficient feature it has to possess is the special tonal patterns which have to be observed in every line, every couplet, and all through the whole poem. This is the

feature to be discussed in this article. It is true that even in some well-known T'ang poems we may find one or two lines which do not conform to the required tonal patterns, but this can hardly be taken as an excuse to ignore the general rules underlying these patterns. As it has been said, there is nothing without exception. It just might be true that in some rare cases a talented poet might deliberately violate a certain pattern so as to achieve some desired effect.

1.3. There seem to be quite a few ways to form a system of metrics of poetry. John Lotz in his article 'Metric Typology' (Lotz 1960) first differentiates two large types, the simple and the complex, and subdivides the latter into three types, the tonal, the dynamic, and the durational, Why in one language one type is adopted rather than another is to a very large extent determined by the characteristics of the language, though strictly speaking there seems to be no logical necessity for any particular choice. Since Chinese has presumably always been a tonal language, it is thus only natural that tonality has been chosen to be the basis for formulating its metrics. This choice immediately makes the Chinese system completely different from the English metrics which is dynamic for it is based upon syllable stress and the metrics of Classical Greek which is based upon syllable length and thus called durational. Stress and length are fairly stable features, especially when they are used in metrics. The contrast is always binary, heavy vs. light and long vs. short.[2] The relative phonetic realization of these features seems to be never in doubt. Presumably, what was thought to be heavy or long in the past may probably still be regarded as heavy or long today or in the future. Thus it may be said that both dynamic and durational metrics are built upon constant foundations, so they still make as much sense as they did in the past. The same thing, however, can hardly be said about a metric system of tonality. As we all know, there are four tones in Ancient Chinese, the language of the T'ang dynasty. These tones can now be understood only in phonemic terms. Their phonetic realization is anything but clear. In fact, they seemed to vary drastically from one dialect to another even before the T'ang dynasty[3] and they surely have changed quite a few times and in many different ways since then. It follows that the metric system based upon the four tones of Ancient Chinese makes relatively less sense to us than it did to people of the T'ang dynasty.

1.4. The above conclusion forces us into direct conflict with the popular notion that the metric system of T'ang poetry is particularly closely related to

music—a notion I find rather difficult to accept. If the term 'music' is defined in the broadest possible sense, that is, the regular occurrence of a sequence of sounds including speech sounds, then all metric systems are closely related to music, because the fundamental principle underlying all metric systems is variation of speech sounds in regular patterns. There seems to be nothing particular in the relation between the metric system of T'ang poetry and music in the above sense. If, however, 'music' means something more specific, i.e., poems written with a certain metric system are apt to be more suitable for music tunes, the metrics of T'ang poetry, it seems to me, just might be somewhat more awkward than the others, due to the changing nature of the tones upon which the system is built. Arthur Waley once said that the Chinese 'deflected' tones (i.e., the non-even tones) are distinctly more emphatic and so have a faint analogy to the English stressed syllables (Waley 1919:23). The analogy seems to me quite dubious, but let us accept it for the moment so as to make another analogy. If there is one line where the even tone and one of the non-even tones occur one after the other in this order, accordingly, this line will be analogous to an English line in iambic meter. If one believes that this line is particularly compatible to a certain type of music tune, it follows that its counterpart, a line in trochaic meter will be clumsy for the same tune. The situation in Ancient Chinese was unique. According to Lù Fă-yén, the compiler of the rime dictionary *Ch'iè h-yùn*, words with the even tone in the dialect *Ch'iè h-yùn* represents sounded like words with going tone in the then Szechwan dialect (see Note 3). Consequently, a line of 'iambic meter' in the standard dialect might possibly turn out to be a line of 'trochaic' meter, or even worse, of no meter whatsoever in the Szechwan dialect, because there were actually three non-even tones of which only one might possibly sound like an even tone in the standard dialect. This would mean that the metric system under study here makes sense only in the dialect where the 'even' tone is actually even and only when the phonetic value of the tones in that dialect remains unchanged. In other words, this system is hardly possible in other dialects and in the later stages of the Chinese language after the T'ang dynasty, as far as its relation to music is concerned. Since from all evidence this system worked quite well in the various dialects of the T'ang dynasty and afterward, and it still makes some sense in Modern Pekingese, though perhaps not as much as it did before, the only logical conclusion we can draw is that the system is neutral with regard to

music. Just as other metric systems, the Chinese system is also merely a device to formulate some regular patterns of speech sounds. Its usefulness to musicians is also just that much.

2. After the above remarks, we can now turn to the discussion of the metric system of T'ang poetry itself. As we just said, there were four tones in Ancient Chinese. These four tones were classified into two contrasting metric bases. The even tone (p'íng–shēng 平聲) which has more than twice as many words as any other tone forms one base by itself. The other three tones, the rising (shǎng 上), the going (ch'ù 去), and the entering (jù 入), form together the other base, the 'tsè–shēng' (仄聲) which has been variously translated the deflected tone, the oblique tone, the changing tone, or the uneven tone. The term 'uneven' shall be used in our discussion, as it clearly indicates a contrast to the even tone.

2.1. The metric patterns of the eight line regulated poems known as 'lǜ–shīh' (律詩) and the quatrain known as 'chüéh chù' (絕句) are part of the common knowledge about Chinese poetry. They appear practically in every anthology and could be recited by every pupil in the past. A number of English publications on Chinese poetry have also included these patterns, for example, Bynner and Kiang's *The Jade Mountain*. We may list these patterns here as a convenient start for further discussion. 'O' represents the even tone, and 'ϕ' represents the uneven tone.

Pattern A	Pattern A'
1. ϕ ϕ 0 0 ϕ	0 0 ϕ ϕ 0 0 ϕ
2. 0 0 ϕ ϕ 0	ϕ ϕ 0 0 ϕ ϕ 0
3. 0 0 0 ϕ ϕ	ϕ ϕ 0 0 0 ϕ ϕ
4. ϕ ϕ ϕ 0 0	0 0 ϕ ϕ ϕ 0 0
5. ϕ ϕ 0 0 ϕ	0 0 ϕ ϕ 0 0 ϕ
6. 0 0 ϕ ϕ 0	ϕ ϕ 0 0 ϕ ϕ 0
7. 0 0 0 ϕ ϕ	ϕ ϕ 0 0 0 ϕ ϕ
8. ϕ ϕ ϕ 0 0	0 0 ϕ ϕ ϕ 0 0
Pattern B	**Pattern B'**
1. 0 0 0 ϕ ϕ	ϕ ϕ 0 0 0 ϕ ϕ
2. ϕ ϕ ϕ 0 0	0 0 ϕ ϕ ϕ 0 0
3. ϕ ϕ 0 0 ϕ	0 0 ϕ ϕ 0 0 ϕ
4. 0 0 ϕ ϕ 0	ϕ ϕ 0 0 ϕ ϕ 0

5.	0 0 0 ϕ ϕ	ϕ ϕ 0 0 0 ϕ ϕ
6.	ϕ ϕ ϕ 0 0	0 0 ϕ ϕ ϕ 0 0
7.	ϕ ϕ 0 0 ϕ	0 0 ϕ ϕ 0 0 ϕ
8.	0 0 ϕ ϕ 0	ϕ ϕ 0 0 ϕ ϕ 0
	Pattern C	Pattern C'
1.	ϕ ϕ ϕ 0 0	0 0 ϕ ϕ ϕ 0 0
2.	0 0 ϕ ϕ 0	ϕ ϕ 0 0 ϕ ϕ 0
3.	0 0 0 ϕ ϕ	ϕ ϕ 0 0 0 ϕ ϕ
4.	ϕ ϕ ϕ 0 0	0 0 ϕ ϕ ϕ 0 0
5.	ϕ ϕ 0 0 ϕ	0 0 ϕ ϕ 0 0 ϕ
6.	0 0 ϕ ϕ 0	ϕ ϕ 0 0 ϕ ϕ 0
7.	0 0 0 ϕ ϕ	ϕ ϕ 0 0 0 ϕ ϕ
8.	ϕ ϕ ϕ 0 0	0 0 ϕ ϕ ϕ 0 0
	Pattern D	Pattern D'
1.	0 0 ϕ ϕ 0	ϕ ϕ 0 0 ϕ ϕ 0
2.	ϕ ϕ ϕ 0 0	0 0 ϕ ϕ ϕ 0 0
3.	ϕ ϕ 0 0 ϕ	0 0 ϕ ϕ 0 0 ϕ
4.	0 0 ϕ ϕ 0	ϕ ϕ 0 0 ϕ ϕ 0
5.	0 0 0 ϕ ϕ	ϕ ϕ 0 0 0 ϕ ϕ
6.	ϕ ϕ ϕ 0 0	0 0 ϕ ϕ ϕ 0 0
7.	ϕ ϕ 0 0 ϕ	0 0 ϕ ϕ 0 0 ϕ
8.	0 0 ϕ ϕ 0	ϕ ϕ 0 0 ϕ ϕ 0

The above diagrams have always been supplemented by the famous remark 一三五不論，二四六分明，meaning, as Downer and Graham put it, 'License for 1, 3, and 5, strictness for 2, 4, and 6' (Downer and Graham 1963:146). What it actually means is that except the last syllable in a line all the odd-numbered syllables may be changed to the opposite while the even-numbered syllables must be what they are specified in the patterns. Kiang K'ang-hu did this by using the symbol ⊥ for those uneven tone syllables which can be replaced by an even tone syllable and the symbol ⊤ for the even tone syllables which can be replaced by an uneven tone syllable. This saves the trouble of drawing tediously a large number of alternative patterns, but any analytical mind can immediately see that the number of diagrams can be further reduced. By adding a note under the first line of pattern A (and A') and that of Pattern B (and B') to the effect that when rhyme is desired the line may be replaced by the first line of Pattern

C (or C') and that of Pattern D (or D') respectively, both Wáng Lì (Wang 1963:72-73) and James Liu (Liu 1962:26-27) find that four diagrams are enough. Wáng Lì also noted that the seven syllable line is actually an extention of the five syllable line by adding at the beginning two syllables which have the opposite tone to that of the two following syllables (Wang 1963:75-76). Thus it is possible for him to reduce the number of the diagrams to only two, though he did not do so. As to the four line regulated poems, chüéh-chǜ, the traditional explanation is that it is half of any of the eight line regulated forms. This is a strange reasoning, but most scholars seem to believe it, including a modern authority like Wáng Lì (Wang 1963:34). A scholar of the Ch'īng dynasty, Chào Chìh-shēn 趙執信 (Cf. Wang 1963:34) once questioned this and said that the four line regulated form actually came into existence before the eight line regulated form and so the latter must be an extention of the former. However, very few people accept this explanation. I shall try to make it more believable.

2.2. A very ingenious approach to the problem under study is found in an article by John Lotz. By adopting a rather abstract method, he succeeds in drawing only two diagrams which can be easily compressed into one, if we put the first two syllables of a seven syllable line in parentheses to show that their occurrence is optional. Following is the revised diagram where a cross represents one of the two tonal bases, a circle represents the opposite base, and a dot represents an unspecified tone. The 'r' in parentheses means that the last syllable of the line is in rhyme (Lotz 1960:145).

(. 0) . x . 0 . (r)
(. x) . 0 . x . (r)
(. x) . 0 . x . (—)
(. 0) . x . 0 . (r)

This approach is better than the traditional one, because it shows that the two lines of a couplet are clearly in contrast and the two neighboring couplets also contrast with each other. But it is still not satisfactory. For one thing, it misleads us to believe that the last syllable of a line is unspecified while in reality it is the strictest of them all; for another, it fails to cover all the permitted patterns.

2.3. The traditional presentation of the metric system of T'ang poetry is not satisfactory in many ways. It is clumsy and yet incomplete. In fact, it is an attempt to list or enumerate a set of patterns which refuse to be listed or

enumerated. As in many other cases, when we are content in enumerating the surface phenomena, we lose whatever chance we may have to discover the underlying general principles. The listing is, of course, correct in what it covers, but only that much. Some scholars claim that they can clearly see the underlying principles of this metric system from the diagrams given above.[4] I rather doubt how true this claim may be. It seems to me that diagrams of this kind, no matter how many one may draw, cannot possibly tell us in explicit terms what the principles are. The diagrams given above, even with the help of the verbal remark that the tones in some positions are changeable, also fail to cover all the aspects that have to be covered. As we shall see in later discussion, under some specific conditions, at least two deviations from the diagrams are permitted (see §3.5 and §3.6). On the other hand, these diagrams show the tonal patterns of only two special forms of regulated verse, the lǜ-shīh and the chüéh-chǜ. There are other forms of regulated verse, too. For example, a couplet may stand alone and is known as tuì-lién (對聯) or tuì-tzu (對子); three couplets can also form one unit known as sān-yǜn hsiǎo-lǜ (三韵小律); a poem with five or more couplets is known as p'ái-lǜ (排律) which can be as long as a poet is able or willing to write. In order to cover all these metric forms and to show the general principles upon which these forms are formulated, drawing diagrams is clearly not an ideal way. Neither will the job be done by making a few impressionistic remarks as Arthur Waley and Hans H. Frankel did (Waley 1919:25 and Frankel 1963:261–63). To answer this need, we must seek a set of strict rules which will generate all the possible patterns.

3. The most important syllable in a regulated line is obviously the last one, but those close to the end are also of critical importance. This can be seen from the following facts. First, the tone of the last syllable must always be what it is specified to be. Second, the tone of the third syllable from the end had better be what it is specified to be, though it can be changed to the opposite (Cf. Wang 1963:90). Third, as Wáng Lì has accurately observed (Wang 1963:75–76), when a line is expanded from five syllables to seven syllables, the expansion comes at the beginning of the line so that the tonal pattern of the line will not be affected. Fourth, though the tone of the syllables in the even-numbered positions is supposedly not to be changed anywhere, there is evidence that poets are often less careful with those farther from the end than with those closer to the end.[5] In discussing the tonal pattern of a line, I find

it necessary to start from the end rather than from the beginning. It seems to me the facts mentioned above can be regarded as the justification for this practice. At any rate, this will simplify our discussion by treating the five syllable line and the seven syllable line in exactly the same way.[6]

3.1. Once we adopt this, so to speak, 'backward' approach, we notice, with a little stretch of our imagination, a highly powerful underlying principle for the construction of the rhythmic pattern of a line. The principle is a process of mirror image in reduplicating two contrasting elements appearing in either order.[7] If we use 'a' to represent either an even tone or an uneven tone and use 'b' to represent its counterpart, we can formulate the process as follows.

(i) $_{m}[ab]=[\cdots\cdots baabbaabbaab]$

The subscript 'm' in the above formula means that the sequence in the square brackets is to be expanded according to the process of mirror image and in the direction where 'm' appears. Theoretically, the process can operate as many times as one may wish. In other words, it can generate a line of any length. In reality, the length of a line in a T'ang poem is limited to either five or seven syllables only. This fact should by no means be taken as evidence to deny the validity of the principle given above. To borrow an idea from Chomsky, we believe that the principle represents the competence of the poets in forming a line of this kind. The fact that they did not write a line as long as nine, nineteen, or a thousand and one syllables is merely a limitation of performance. We learn from history that the seven syllable line came into existence several hundred years after the invention of the five syllable line. It is perhaps not too difficult to imagine that, before the invention of the seven syllable line, there might have been many people who thought such a thing was hardly acceptable just as a nine syllable line is hardly acceptable to us, and yet it happened. It may be interesting to note here that one special form of regulated verse known as tuì-lién may have in each of its two lines more than seven syllables arranged according to the rhythmic pattern discussed here.[8] At any rate, if we want, we can easily specify how many syllables there may be in a line. That the formula we set up can generate a line of any length only helps to demonstrate forcefully what potential it possesses. The fact should by no means be regarded as a weakness.

3.2. The formula we set up in the last section will generate two basic types of lines. When 'a' represents the even tone and 'b' represents the uneven

tone, we shall have what may be called an α-line in the following form.

〔…… ϕ 0 0 ϕ ϕ 0 0 ϕ ϕ 0 0 ϕ 〕

The last seven or five syllables will be

〔(0 0) ϕ ϕ 0 0 ϕ〕

When 'a' represents the uneven tone and 'b' represents the even tone, we shall have a β–line as follows.

〔…… 0 ϕ ϕ 0 0 ϕ ϕ 0 0 ϕ ϕ 0〕

The last seven or five syllables will be

〔(ϕ ϕ) 0 0 ϕ ϕ 0 〕

When we compare these two basic types of lines with the eight diagrams in §2.1, we shall notice with some astonishment that the arrangement of the lines in a T'ang poem follows exactly the same principle through which the syllables of a line are arranged, if we ignore for the moment the last three positions in a line which we shall discuss later (§3.3). The only difference is that within a line the process of mirror image functions from the end backward or upward, but among the lines it functions from the beginning of the poem. We can represent this process by the following formula where 'A' stands for either an α–line or a β–line, while 'B' stands for the opposite.

(ii) {AB}m = {ABBAABBAABBA……}

Again, we may point out here that this formula has great potential. It may operate as many or as few times as the poet wishes. Fortunately, we have some empirical support for this claim, for we do find poems of this kind in various length. As noted before, we have tuì–liɛ́n (two lines), chüéh–chǜ (four lines), sān–yǜn hsiǎo–lǜ (six lines), lǜ–shīh (eight lines), and p'ái–lǜ (ten lines and over). There are quite a few p'ái–lǜ with two hundred lines. This length seems to be the upper limit in practice, but again we believe this is only a limitation in performance. There seems to be no reason why a poem of this kind with, say, ten thousand lines would be unacceptable, should anyone care to write it.

3.3. As in English poetry (Levin 1962:42), the two most important phonological conventions observed in Chinese poetry, particularly T'ang poetry, are those of meter and rhyme. The two features are, of course, always woven together. In T'ang poetry, the convention of rhyme is that only the even–numbered lines rhyme and the rhyme–words must all be in the even tone.[9] The odd–numbered lines, except the first line, do not rhyme and must all end with a word in the uneven tone. The first line is optional in rhyming, but when it does not rhyme,

it must end in an uneven tone word. These restrictions clearly conflict with the arrangement of the lines specified by the formula in the last section which says that both α–line and β–line can occur as an even–numbered line or an odd-numbered line. Obviously, something must be done. Once more, we discover a powerful underlying rule for making all the necessary adjustments. In verbal terms, this rule can be expressed in a very simple though not very precise way, namely, 'In cases when required by the rhyming restrictions, exchange the tone of the last syllable of a line with that of the third from the end.' This means that when the α–line appears as an odd–numbered line, it will remain as [(0 0) ϕ ϕ 0 0 ϕ], but when it occurs as an even–numbered line, it must be adjusted to [(0 0) ϕ ϕ ϕ 0 0]; the β–line will remain as [(ϕ ϕ) 0 0 ϕ ϕ 0], when it occurs as an even–numbered line, but must be adjusted to [(ϕ ϕ) 0 0 0 ϕ ϕ], when it occurs as an odd–numbered line. When they occur as the first line of a poem, the change will be optional, depending upon whether rhyme is desired there. The following rule may express the above process with a kind of mathematical precision, though it looks rather awkward in that it has to be supplemented by quite a few notes.

(iii) $[X+a+S+b]_{Nth} \longrightarrow [X+b+S+a]_{Nth}$

Notes: 1. Optional, when N=1.

2. Obligatory, when
   i) N=2n, a=0, b=ϕ,
   ii) N=2n+1, a=ϕ, b=0.
3. S=a single syllable.
4. n=any integer except zero.

When the above rule is added to the two formulas given before, all the possible basic forms of tonal patterns, including the eight diagrams in §2.1, will be generated. These are the strictest forms. Very few poems were actually written in these forms without further modification. It seems to me that among all the regulated poems of this kind in the famous anthology *T'ang-shīh Sān-păi Shŏu* (唐詩三百首), [10] there are only two short poems which conform completely to two of these basic patterns, but I confess promptly that I did not check the book with the utmost care. we may cite the two poems as examples.

李端　聽彈箏

鳴 箏 金 粟 柱　　mjɐŋ tʃæŋ kjem sjuok ⁂'juo

0 0 0 ϕ ϕ

素 手 玉 房 前　　suo✱ ✱ʂju ŋjuok b'juɑŋ dz'iɛn
Φ Φ Φ 0 0
欲 得 周 郎 顧　　juok tək tʂju lɑŋ kuo✱
Φ Φ 0 0 Φ
時 時 誤 拂 絃　　ʐi ʐi ŋuo✱ p'juət ɣiɛn
0 0 Φ Φ 0

柳中庸　征人怨

歲 歲 金 河 復 玉 關　　sjuæi✱ sjuæi✱ kjem ɣɪ b'ju✱ ŋjuok kuan
Φ Φ 0 0 Φ Φ 0
朝 朝 馬 策 與 刀 環　　ʑjæu ʑjæu ✱ma tʃ'æk ✱juo tɑu ɣuan
0 0 Φ Φ Φ 0 0
三 春 白 雪 歸 青 冢　　sɑm tʂ'juen b'ɐk sjuæt kjuəi ts'ieŋ ✱ʑjuŋ
0 0 Φ Φ 0 0 Φ
萬 里 黃 河 繞 黑 山　　mjuɐn✱ ✱li ɣuɑŋ ɣɑ ✱ŋjæu xək ʃæn
Φ Φ 0 0 Φ Φ 0

3.4. The basic metric patterns are apparently too harsh for the linguistic reality of the language. For example, as Wáng Lì has pointed out (Wang 1963:112), among the numerals, only sān (three) and ch'iēn (thousand) belong to the even tone. A poet trying to compose in these rigid patterns must be frequently frustrated in looking for a word of the required tone. Accordingly, some relaxation is needed so as to give him a little more freedom to maneuver. Here comes the famous saying 'License for 1, 3, and 5, strictness for 2, 4, and 6,' that is, counting from the end of a line, all the even-numbered syllables must be what they are specified to be, but the odd-numbered syllables, except the first one, may be changed to the opposite. Again, we can present a rule to represent this optional modification.

(iv) $[X+a<SS>_n] \longrightarrow (X+b<SS>_n]$

Notes: 1. S=a single syllable.
2. n=any integer except zero showing the times of occurrence of<SS>.
3. a,b=0, Φ; but a≠b.

Two points related to this rule have to be added here:

a) One may ask why the metric system is so strict with the even-numbered syllables. It seems to me no answer to this question is completely satisfactory, i.e., can be readily proven. One reasonable explanation is that there seems to

be a tendency for Chinese words to go by two, with the second one receiving more stress. The above rule is thus simply a reflection of this linguistic phenomenon.[11] Anyway, we are here more concerned with what the metric system is than with why it should be what it is. The above is what has been observed and the rule has specified it.

b) Though, according to the above rule, the third syllable from the end of a line can be changed, the practice is often discouraged. Such a line is called a 'twisted line' (ào-chǔ 拗句) which had better be avoided or 'remedied.' The remedy for the 'twisting' is known as ào-chiù (拗救). It means that if one does not use a word of the specified tone for the third position from the end of a line, one had better balance it up by using a word of the opposite tone for the fifth position, too. It seems to me there might be some phonological motivation for both the avoidance of the 'twisting' and the remedy for it, though it is rather difficult for us to say what it is in precise terms. Unfortunately, this rhythmic feature can hardly be incorporated into the metric system, because it is not strict and definite enough to be considered part of the fundamental principles of this system. It often shows, however, the unique style of some individual authors. For example, a great late T'ang master, Hsǔ Hún(許渾), is said to be an expert in writing 'twisted' but 'remedied' lines (Wang 1963:94). The great Sung master Huáng T'íng-chiēn (黃庭堅) often deliberately wrote 'twisted' lines. Poems written in the patterns governed by Rule (iv) are very common. We may cite one here as an example. Modified positions are underlined.

賀知章 回鄉偶書

少	小	離	家	老	大	回	ɕjæu✱ ✱sjæu lje ka ✱lɑu d'ɑ✱ ɣuAi
ϕ	ϕ	0	0	ϕ	ϕ	0	
鄉	音	無	改	鬢	毛	摧	xjɑŋ ʔjem mjuo ✱kAi pjen✱ mɑu dz'uAi
0	0	0̲	ϕ	ϕ	0	0	
兒	童	相	見	不	相	識	ŋje d'uŋ sjɑŋ kiɛn✱ pjuət sjɑŋ ɕjək
0	0	0̲	ϕ	0̲	0	ϕ	
笑	問	客	從	何	處	來	sjæu✱ mjuən✱ k'ɐk dz'juoŋ ɣɑ tɕ'juo✱ lAi
ϕ	ϕ	0̲	0	0̲	ϕ	0	

3.5. The adjusted β-line can be further changed from the form [(ϕ ϕ) 0 0 0 ϕ ϕ] to the form [(ϕ ϕ) 0 0 ϕ 0 ϕ]. This new form was officially accepted in the government examinations and, according to Wáng Lì (Wang 1963:103–8 and 823–25), was even more popular with the poets than the form from which

it is derived. What this optional change means is that when a sequence of three even tone syllables occurs immediately before the last two syllables which are in the uneven tone, the neighbouring even tone and the uneven tone are interchangeable. A rule as follows can then be formulated.

(v) 〔X+0 0 0 Φ Φ〕⟶〔X+0 0 Φ 0 Φ〕

Poems containing lines of this form are quite common. Two may be cited here as examples. They are all the more noticeable because every line in them conforms to a basic form except the two lines which are modified according to this new rule.

孟浩然　宿建德江

移 舟 泊 烟 渚　je tɕju b'ɑk ʔiɛn ⁎tuo
0 0 Φ 0 Φ
日 暮 客 愁 新　ɲjet muo⁎ k'ɐk dʒ'ju sjen
Φ Φ Φ 0 0
野 曠 天 低 樹　⁎ja k'uɔŋ⁎ t'iɛn tiɛi ʐjuo⁎
Φ Φ 0 0 Φ
江 清 月 近 人　kɔŋ ts'jɐŋ ŋjuɐt ⁎g'jən ɲjen
0 0 Φ Φ 0

錢起　送僧歸日本

上 國 隨 緣 住　ʐjɑŋ⁎ kuək zjue juæn ɕ'juo⁎
Φ Φ 0 0 Φ
來 途 若 夢 行　lAi d'uo ɲjɑk mjuŋ⁎ ɣɐŋ
0 0 Φ Φ 0
浮 天 滄 海 遠　b'ju t'iɛn ts'ɑŋ ⁎xAi ⁎ɣjuɐn
0 0 0 Φ Φ
去 世 法 舟 輕　k'juo⁎ ɕjæi⁎ pjuɐp tɕju k'jɐŋ
Φ Φ Φ 0 0
水 月 通 禪 寂　⁎ɕjuei ŋjuɐt t'uŋ ʐjæn dz'iek
Φ Φ 0 0 Φ
魚 龍 聽 梵 聲　ŋjuo ljuoŋ t'ieŋ⁎ b'juɜm⁎ ɕjɐŋ
0 0 Φ Φ 0
惟 憐 一 燈 影　juei liɛn ʔjĕt təŋ ⁎ʔjɐŋ
0 0 Φ 0 Φ
萬 里 眼 中 明　mjuɐn⁎ ⁎li ⁎ŋæn ʈuŋ mjɐŋ
Φ Φ Φ 0 0

This new rule obviously violates the well-known saying 'License for 1, 3, and 5, strictness for 2, 4, and 6,' for not only that the second position from the end has been changed from the uneven tone to the even tone but that the third position from the end must be strictly an uneven tone. For this reason, Wáng Lì repeatedly attacks this well-known remark (e.g., Wang 1963:83 and 100). He also warns that the practice represented by the above rule is limited only to those adjusted β-lines where the tone of the fifth syllable from the end has not been changed (viz., affected by Rule iv). It seems to me both the attack and the warning might be unnecessary. Here we can clearly see the power of our method. The difficulties pointed out by Wáng Lì simply do not exist, because to us the time-honored remark represents a mechanism of a somewhat higher order. Its validity is not to be doubted. When we arrannge these rules, all that we have to do is to put Rule (v) after Rule (iv) so that Rule (v) will apply only to those lines which still have a sequence of three even tone syllables in the specified positions, and its output will not be subjected to the change represented by Rule (iv).

We may venture to explain why the change represented by Rule (v) was favored by most poets and why the change is confined to the sequence of even tone syllables only. It seems to me there is a strong phonological motivation for this practice. As we have seen, the longest sequence of syllables with the same tone which our rules can generate so far is one of three syllables. What Rule (v) says now is that a sequence of three uneven tone syllables is all right, but a sequence of three even tone syllables, though tolerable, had better be changed to two. If we remember that the so-called uneven tone actually consists of three different tones while there is only one even tone, we shall be able to understand the reason. A sequence of three or more syllables in the uneven tone may still have some phonetic variation insofar as they do not belong to the same one of the three non-even tones (rising, going, and entering), but a sequence of three or more even tone syllables would perhaps sound somewhat monotonous.

3.6. We may now take into consideration another rule which will make the above explanation more believable. The rule was never officially recognized; nevertheless, many poets practised it (Wang 1963: 111). What the rule says is that in a couplet where the first line is an α-line and the second is a β-line, if the third syllable from the end in the β-line has been changed from the uneven

tone to the even tone (viz., affected by Rule iv), the second syllable from the end in the α-line can then be changed from the even tone to the uneven tone (Wang 1963:108). The process can be formulated as follows.

(vi) 〔X+0 ϕ〕⟶〔X+ϕ ϕ〕 / ＿＿〔X+0 ϕ 0〕

We may cite a short poem as an example.

劉長卿　聽彈琴

泠	泠	七	弦	上	lieŋ lieŋ ts'jet ɣiɛn ʑjɑŋ*
0	0	ϕ̲	ʊ̲	ϕ	
靜	聽	松	風	寒	*dz'jəŋ t'ieŋ* sjuoŋ pjuŋ ɣɑn
ϕ	ϕ	ʊ̲	0	0	
古	調	雖	自	愛	*kuo d'iɛu* sjuei dz'jei* ʔAi*
ϕ	ϕ	0	ϕ̲	ϕ	
今	人	多	不	彈	kjem ȵjen tɑ pjuət d'ɑn
0	0	ʊ̲	ϕ	0	

In our interpretation, the rhythmic pattern of this poem is derived from its basic form first by the application of Rule (iv) which affected the second and the fourth lines, then by the application of Rule (v) which transformed the first line, and finally by the application of the present rule which modified the third line by using the fourth line as its condition. Since the present rule uses the output of Rule (iv) as its condition, we have to say that this rule operates after Rule (iv). In fact, the line this rule operates on may have been affected by Rule (iv) already. This is why we do not specify in the rule the syllables preceding the last two in the line, with the consequence that a sequence of four or even five uneven tone syllables is now permitted, —a strong and direct support to our speculation that a sequence of three or more uneven tone syllables is generally not deliberately avoided. A sequence of four uneven tone syllables will be generated when this rule applies to a 'twisted' but 'remedied' α-line (ʊ̲ ϕ ϕ̲ 0 ϕ⟶ʊ̲ ϕ ʊ̲ ϕ̲ ϕ) as the first line in the following poem.

孟浩然　登峴山

人	事	有	代	謝	ȵjen dʒ'i* *ɣju d'Ai* zja*
ʊ̲	ϕ	ϕ̲	ϕ̲	ϕ	
往	來	成	古	今	*ɣjuɑŋ lAi ʑjəŋ *kuo kjem
ϕ̲	0	ʊ̲	ϕ	0	
江	山	留	勝	跡	kɔŋ ʃæn lju ɕjəŋ* tsiɛk
0	0	0	ϕ	ϕ	

我 輩 復 登 臨　　⁎ŋɑ puAi⁎ b'ju⁎ təŋ ljem
φ φ φ 0 0
水 落 魚 梁 淺　　⁎ʂjuei lɑk ŋjuo ljɑŋ ⁎ts'jæn
φ φ 0 0 φ
天 寒 夢 澤 深　　t'iɛn ɣɑn mjuŋ⁎ ɕ'ɐk ʂjem
0 0 φ φ 0
羊 公 碑 尙 在　　jɑn kuŋ pje ʑjɑŋ⁎ ⁎dz'Ai
0 0 0 φ φ
讀 罷 淚 沾 襟　　d'uk ⁎b'æi ljuei⁎ ⁎jæm kjem
φ φ φ 0 0

If the rule is applied to a plain 'twisted' α-line, the result will be a five uneven tone syllable sequence (φ φ ⓟ 0 φ⟶φ φ ⓟ ⓟ φ), like the first line in the following poem, a rather uncharacteristic line in T'ang poetry but still accepted.[12]

李商隱　登樂遊原

向 晚 意 不 適　　xjɑŋ⁎ ⁎mjuɐn ʔi⁎ pjuət ʂjɛk
φ φ ⓟ ⓟ φ
驅 車 登 古 原　　k'juo tʂ'ja təŋ ⁎kuo ŋjuɐn
0 0 ⓟ φ 0
夕 陽 無 限 好　　zjɛk jɑŋ mjuo ⁎ɣæn ⁎xɑu
ⓟ 0 0 φ φ
只 是 近 黃 昏　　⁎tʂje ⁎ʑje ⁎g'jən ɣuɑŋ xuən
φ φ φ 0 0

3.7. We have exhausted all the fundamental restrictions of the metrics of T'ang poetry. The set of rules in the following and the order in which these rules are to be applied may hopefully represent the mechanisms of this system. Due to some technical difficulties, we shall have to slightly revise the format of some of the rules presented before, but they will stand for essentially the same principles described in our earlier discussion.

#TP# (TP = tonal patterns of T'ang poetry)

1. $TP \longrightarrow \left\{ \begin{matrix} \alpha+\beta \\ \beta+\alpha \end{matrix} \right\}_m$

2. $\begin{pmatrix} \alpha \\ \beta \end{pmatrix} \longrightarrow_m \begin{pmatrix} 0 & \phi \\ \phi & 0 \end{pmatrix}$

3. $[X+a+S+b]_{Nth} \longrightarrow [X+b+S+a]_{Nth}$

1) Optional, when N=1.
2) Obligatory, when
   i) N=2n, a=0, b=ϕ;
   ii) N=2n+1, a=ϕ, b=0.
3) S= a single syllable.
4) n = any integer except zero.

4. $[X+a\langle S\ S\rangle_n]\longrightarrow[X+b\langle S\ S\rangle_n]$
1) Optional.
2) S=a single syllable.
3) n=any integer except zero showing the time(s) of occurrence of$\langle S\ S\rangle$.
4) a,b=0, ϕ; but a$\neq$b.

5. $[X+0\ 0\ 0\ \phi\ \phi]\longrightarrow[X+0\ 0\ \phi\ 0\ \phi]$
Optional.

6. $[X+0\ \phi]\longrightarrow[X+\phi\ \phi]/\_\_\_[X+0\ \phi\ 0]$
Optional.

4. The above rules are, however, not of equal importance. Depending on how strict one desires to be, some of the optional rules could be eliminated. For example, the last rule, as has been noted, was never accepted in the civil service examinations of all the dynasties. On the other hand, some rules may be added so as to make the system even more uncompromising. One thing the above set of rules has not covered is the so-called fàn-kū-p'íng (犯孤平) which means literally 'committing the mistake of having only one even tone syllable.' What it really means is that, to put it in our terminology, Rule 4 cannot be applied to the fifth syllable from the end in a β-line (0 0 ϕ ϕ 0) unless it is also applied to the third syllable from the end in the same line. In other words, the line [$\underline{\phi}$ 0 ϕ ϕ 0] is not well-formed, but the line [$\underline{\phi}$ 0 $\underline{0}$ ϕ 0] is acceptable. I have not incorporated this restriction into the above set of rules not only because it seems to be rather too arbitrary, that is, without phonological motivation, but also because it has long been forgotten (Wang 1963:88).

4.1. Of the obligatory rules in the above set, Rule 1 which specifies the arrangement of the lines in a poem does not seem to be as important as Rule 2 which describes the arrangement of the syllables in a line, for we sometimes find poems which observe Rule 2 but ignore Rule 1. Tù Mù's 'Farewell' can be given here as an example.

杜牧　贈別

娉 娉 嫋 嫋 十 三 餘　　p'ieŋ p'ieŋ ⁎niɛu ⁎niɛu ʂjep sɑm jo
0 0 ϕ ϕ ϕ 0 0　(α)

荳 蔻 梢 頭 二 月 初　　d'u⁎ xu⁎ ʃau d'u ɳjei⁎ ŋjuɐt tʃ'jo
ϕ ϕ 0 0 ϕ ϕ 0　(β)

春 風 十 里 揚 州 路　　tʂ'juen pjuŋ ʂjep ⁎li jɑŋ tʂju luo⁎
0 0 ϕ ϕ 0 0 ϕ　(α)

捲 上 珠 簾 總 不 如　　⁎kjuæn ʐjɑŋ⁎ tʂjo ljæm ⁎tsuŋ pjuət ɳjo
ϕ ϕ 0 0 ϕ ϕ 0　(β)

Rule I can be violated in several different ways. If, in expanding a poem, the process of mirror image is overlooked, the result will be that the second line of the preceding couplet does not share the same rhythmic pattern with the first line of the following couplet. This is called 'no adherence' (shīh-chān 失粘), as has been exemplified by the poem just quoted. If, in forming a couplet, two lines of the same type, either α or β, are chosen, there will be 'no contrast' (shīh-tuì 失對). Among the T'ang poems, shīh-tuì is very rare, while shīh-chān is relatively more common. This is perhaps not too difficult to understand. The contrast of sounds in a couplet is conceivably more important than that among the couplets. The same reasoning can perhaps be extended to explain why Rule 2 and Rule 3 are almost always carefully observed while Rule 1 is occasionally overlooked. The contrast of speech sounds within a line is certainly more important than that between the two lines of a couplet and among the couplets.

4.2. We have accepted the general claim that T'ang poems rhyme with even tone words only, because we find the greatest majority of the regulated poems do rhyme in the even tone. It is, however, not difficult to find some quatrains of five syllable lines rhyming in one of the non-even tones. The following is a good example.

劉長卿　送上人

孤 雲 將 野 鶴　　kuo ɣjuən tsjɑŋ ⁎ja ɣɑk
0 0 0 ϕ ϕ

豈 向 人 間 住　　⁎k'jəi xjɑŋ⁎ ɳjen kæn ʄ'juo⁎
ϕ ϕ 0 0 ϕ

莫 買 沃 洲 山　　mɑk ⁎mæi ʔuok tʂju ʃæn
ϕ ϕ ϕ 0 0

時 人 已 知 處　　ɳi ɳjen ⁎i ʑje tʂ'juo⁎
0 0 ϕ ϕ ϕ

When earlier T'ang poets wrote regulated poems rhyming in a non-even tone, they always tried to show the greatest possible variation in using words of the other three tones as the last syllable of the lines not in rhyme (Wang 1963:80–82). For example, both the first and the third lines in the above poem are not in rhyme, but the last word of the first line is of the entering tone and the last word of the third line belongs to the even tone, while the rhyming words are in the going tone. Note, however, the rhythmic pattern of each line and the arrangement of the lines follow precisely the rules we have discovered. Should all the lines not in rhyme terminate in the even tone, we would be able to specify their forms very easily. All that we have to do is to modify slightly the conditions to Rule 3 as follows:

(For poems rhyming in words of a non-even tone.)

Obligatory, when i) $N=2n$, $a=\phi$, $b=0$;

ii) $N=2n+1$, $a=0$, $b=\phi$.

It is perhaps not surprising to learn that when poets of later ages wrote poems rhyming in a non-even tone, this was exactly the rule they followed, for they used only even tone words as the last syllable of the lines not in rhyme (Wang 1963:81).

Notes

[1] I have listed as references only a few of the researches by modern scholars. Needless to say, there are still many others. The most comprehensive and authoritative is undoubtedly Professor Wáng Lì's work (Wang 1963) which has been extremely useful to this author. The present article does not pretend to go beyond that excellent book except offering a new interpretation of the metric system, with its underlying principles unequivocally stated.

[2] This, of course, does not mean that more degrees of phonemic distinction do not exist in languages making use of such features as stress and length. It means that in metrics only a binary contrast of these features is possible, as Samuel R. Levin puts it (Levin 1962:43, fn.), 'System of metrical scansion that involve more than the two terms of "stress" and "absence of stress"—involving such additional terms as "minor" or "half-stress"—muddy the distinction between the metrical system of the poem and the suprasegmental system of the language used in the poem.'

[3] Lù Fă-yén, the compiler of *Chiè-yùn*, said in the preface: '秦隴則去聲爲入，梁益則平聲似去.' (In the dialect of Ch'ín and Lŭng, the going tone is like the entering tone (of the standard dialect), while in the dialect of Liáng and Yì the even tone sounds like the going tone.)

[4] For example, Professor James Liu says (Liu 1962: 27) after the four diagrams he draws: 'From the above patterns one can clearly perceive the principles of variation of tones within the line, and the repetition and contrast of tone-sequences in the whole poem.'

[5] For example, in the first line of Li Po's 黃鶴樓送孟浩然之廣陵, '故人西辭黃鶴樓,' the word 人 which belongs to the even tone is used in a position where an uneven tone is required. (Cf. Bishop 1955:55)

[6] As a vivid counterexample, see Wang 1963: 108 where he has to repeat tediously such expressions as 'the third word of a five syllable line and the fifth word of a seven syllable line.' To us, Wang is actually talking about the same word, when counting from the end.

[7] From Bishop 1955 I learned of Yoshikawa Kōjirō's 'Some Remarks on Meter in Chinese Poetry' (a paper presented before the 6th annual meeting of the Far Eastern Association, April, 1954). He was quoted in saying that 'in distinction to traditional Western prosody in which a metrical pattern is repeated indefinitely with minor variation, traditional Chinese prosody as a natural outcome

of tonality in the Chinese language is based on the principle of tonal contrast within the unit of the couplet. In musical terms (and such seem valid in this context), rather than development by imitation, a mirror counterpoint is employed.' Since I have not got the chance to read the paper, I do not know what he meant by 'a mirror counterpoint,' though I suspect he might mean something similar to what I said here.

[8] For example, the well-known couplet '寄寓客家牢寐寒窗空寂寞，迷途退遠退還蓮逕返逍遙，(φ φ $\underline{φ}$ 0 φ φ 0 0 0 φ φ, 0 0 $\underline{0}$ φ $\underline{φ}$ 0 $\underline{0}$ φ φ 0 0) follows the rules discussed in this article with a few permitted exceptions (see §3.4).

[9] This claim is based on the fact that the majority of the regulated poems rhyme with the even tone. This is obviously the result of an arbitrary convention. There seems to be no reason why regulated poems cannot rhyme in the uneven tone. In fact, we do find some regulated poems rhyming in the uneven tone (see §4.2), but they are mainly quatrains of five syllable lines—a clear indication that they were influenced by the so-called kŭ-chüéh.

[10] For this anthology, I have chosen the annotated edition by Yü Shŏu-chēn (Yü 1957). The phonetic transcription of the poems is based on the reconstructed system of Ancient Chinese by Professor Tŭng T'úng-hó (董同龢：漢語音韻學 Taipei, 1968). For the notation of tones, the symbol '*' will be used. When it appears at the upper left corner of a syllable, it represents the rising tone. When it appears at the upper right corner, it represents the going tone. The even tone and the entering tone will be left unmarked.

[11] Dr. Fang-kuei Li said to this author in a private talk that the location of caesura in a line (after the second syllable in a five-syllable line or the fourth syllable in a seven-syllable line may have something to do with the fact discussed here. I personally feel this idea can perhaps be stretched a little by saying that after every even-numbered syllable there is a potential location of pause which makes the tone specification there rather strict. The traditional way of chanting poems lends some support to this saying in that a lingering at any even-numbered syllable is possible.

[12] Arthur Waley once said (Waley 1919: 25): 'Lines can be found in pre-T'ang poems in which five deflected tones occur in succession, an arrangement which should have been painful to the ear of a T'ang writer.' The example here shows that such a line was, after all, not too painful to his ear.

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唐詩之聲律

薛鳳生

就體裁而論，唐詩大別爲二類，卽今體與古體，二者之差異端在聲律之應用。對唐人言，顧名思義，古體乃仿古之作，今體則爲唐人所獨創。故以「唐詩」一詞專指今體，似乎更爲恰當。

舊時論唐詩聲律者，多限於律絕，以平仄歌訣爲主，輔以「一三五不論，二四六分明」等說，其法雖頗實用，然缺點仍多，其最大者厥爲使此一聲律之基本法則隱晦不彰。晚近中西學者對此問題有興趣者頗多，論著亦豐，每能超勝前修，然於該聲律之基本原理猶皆未能具體標出。本文卽針對此點，綜論唐詩聲律之構成要素，期以數條簡約之法則貫串唐詩之各種形式，從而闡明唐詩聲律之特質。結論得公式六，前三條爲必要的基本法則，說明律體詩之章法及句法皆遵循鏡式反映規律而擴展，並在特定的情況下受到韻律之節制；後三條爲選取性的輔助法則，指出在某些固定的情形下，基本的平仄格式得作某些修訂。唐詩聲律因有此六條公式乃獲得最精確之說明，卽破格之詩亦因而得以清晰顯出其所以破格之故。