Are There Lines in Folk Poetry?

Bruce Hayes Margaret MacEachern

Abstract

The sung verse of folk song is realized against a rhythmic grid that is continuous, isochronous, and in principle infinite. Yet an abstract level of constituency on this grid, the line, can be justified on linguistic grounds. Songs are patterned so as to align major breaks of the Prosodic Hierarchy ("P-structure," Selkirk 1986) with regularly spaced locations in the grid, which we take to be line boundaries. The parsing of the grid into lines is song-specific, so that the same infinite grid is compatible with more than one possible meter. Evidence for lines from P-structure converges with other evidence from rhyme and from rhythmic cadences.

We briefly consider two other issues: (a) why left edges of lines tend to align strictly with line boundaries, whereas right edges are merely constrained not to overflow them; (b) the status of the infinite grid, which we take to be the result of a deeply nested, symmetrical constituent structure defined on the grid, rather than a theoretical primitive. We also consider the status and extent of counterexamples.

1. Introduction

This paper is part of a research program to study the meters and stanza structures of English folk verse (Hayes and Kaun 1996, Hayes and MacEachern 1998). Verse in this tradition, now largely moribund, was sung and chanted by ordinary people and transmitted orally.[1]

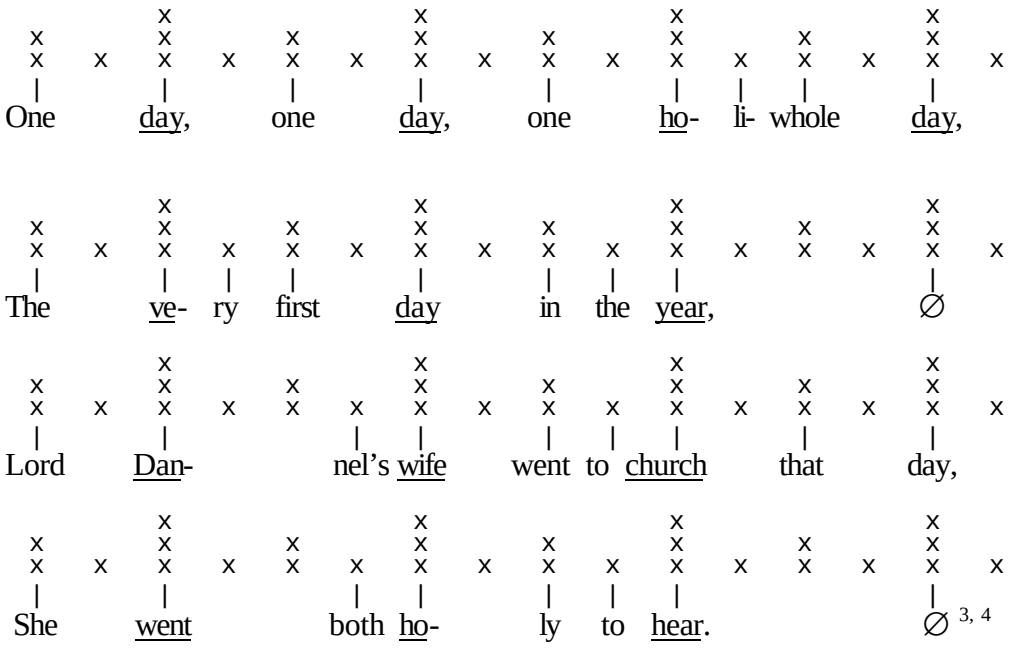
In art verse composed by literate poets, there is no question that the *line* conscious intention, since the poet arranges lines typographically as units on the page. Folk verse,

[1] For background on this type of verse, see Sharp 1907, Karpeles 1973, Abrahams and Foss 1968, and the prefaces to Karpeles 1932.

however, is not ordinarily written down, other than by field researchers. Nevertheless, the line, or something like it, seems to be very much a structural element of folk verse; it's just that the evidence for lines must be culled from the data, as with any other object in linguistic theory.[2]

We sought evidence for lines in a corpus of 1028 Southern Appalachian folksongs described in Hayes and MacEachern (1998). The corpus consisted of the entire contents of Karpeles 1932 and Ritchie 1965, which are volumes of Southern Appalachian folksongs transcribed from participants in this folk tradition. Our analysis was based on the metrical grids proposed as a basis for rhythmic analysis by Liberman (1978) and Lerdahl and Jackendoff (1983:chaps. 2-4). For each song in the corpus, we established a grid which could accommodate the rhythm of the song. For one version of the ballad known to scholarship as "Little Musgrave and Lady Barnard," we established the grid in (1), which is shown aligned with the first verse.

(1)



Karpeles 1932, #23K

The *x*'s in the grid notate beat strength, with higher columns corresponding to stronger beats. Grid rows are intended to be realized isochronously; strictly so in theory, approximately so in actual singing. We include some extra notation to make the grid easier to read: the four strongest musical beats of each line are underlined where filled with a syllable, else marked with ∅ where "silent." Silent beats are

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[2] Actually, the same is true for art verse: in principle, a poet could determine the orthographic line boundaries partly on a structurally authentic basis and partly for expressive purposes.

[3] The last line of the quatrain is repeated.

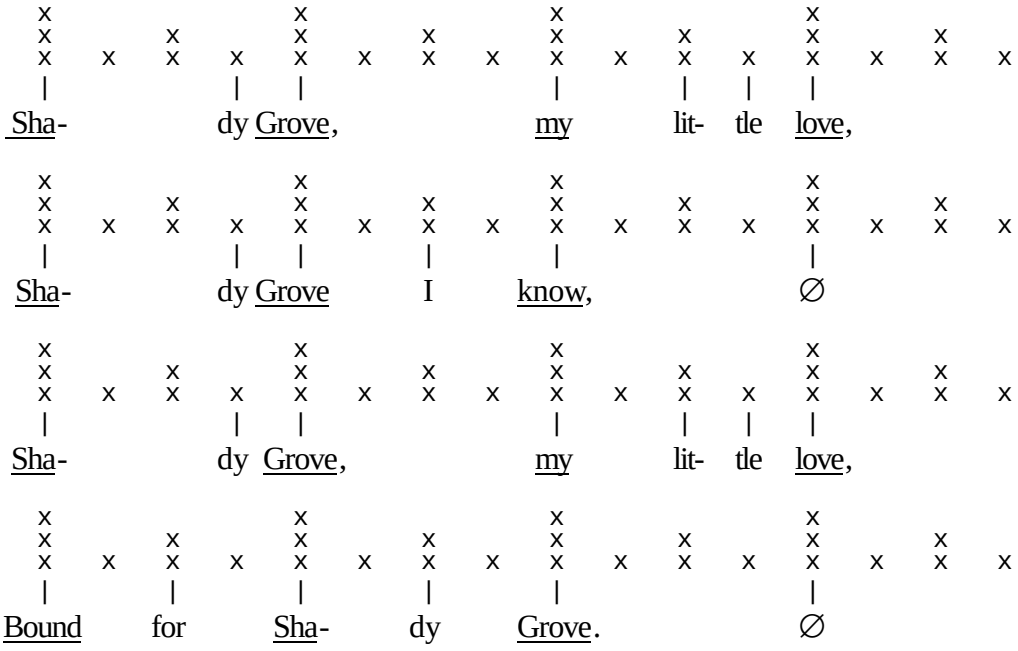
[4] Readers seeking help in interpreting the gridded examples may download chanted versions of them (in .wav format) from http://www.linguistics.ucla.edu/people/hayes/metrics.htm.

clearly noticeable as an obligatory pause, preserving the isochronous rhythm (Burling 1966:1420, Attridge 1982:87-88).

Before going on, we remark further on the role of silent beats. It is quite typical for a subset of the lines in a stanza to be truncated (filled with a silent beat) at their ends, as in lines 2 and 4 of "Little Musgrave." Hayes and MacEachern (1998) presents a theory of such truncations. Briefly, line-final truncation serves to highlight specified levels of metrical constituency. In (1), for instance, which is a typical case, the couplets are rendered perceptually separate and hence highly distinct by the truncations at the ends of the second and fourth lines. In this paper, we will assume the results of our earlier work, and take line endings more or less for granted. Of greater interest for present purposes are the line beginnings.

To provide more material for analysis, here is the refrain stanza of a contrasting folk song, a version of "Shady Grove":

(2)



Ritchie 1965, p. 43

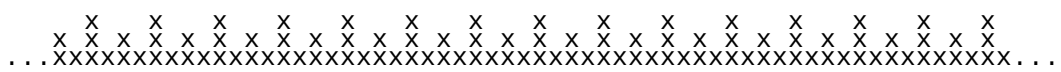
It can be seen that the grid for "Shady Grove" is similar to that for "Little Musgrave," but with a difference in the highest grid level: the first strong beat comes initially in the line rather than being delayed to the third position. The other three strong beats are likewise positioned earlier.

2. The Argument for Lines

Our comparison of "Little Musgrave" and "Shady Grove" presupposes that each song has its own specific grid. This involves several theoretical claims. In particular, we are claiming that lines exist; that is, that they are authentic structural units of the system. We are also claiming that each line possesses its

own distinct stretch of grid, and that a song-specific choice is made for what this stretch is. None of these claims is obviously true, because in the audible form of a song the grid is essentially *continuous*. The grids in (1)-(2) were intentionally arranged in what we consider to be a line-by-line basis. But what is actually available for placing syllables over the whole song is a completely continuous, in principle infinite, grid, as in (3):

(3)

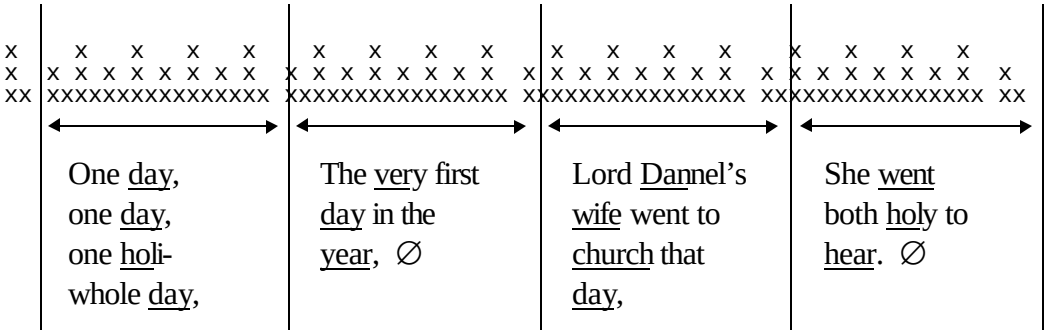


Our "Little Musgrave" and "Shady Grove" grids each represent a possible chopping up of this continuous proto-grid into a sequence of equal chunks. What we must show now is that the chopping is not arbitrary.

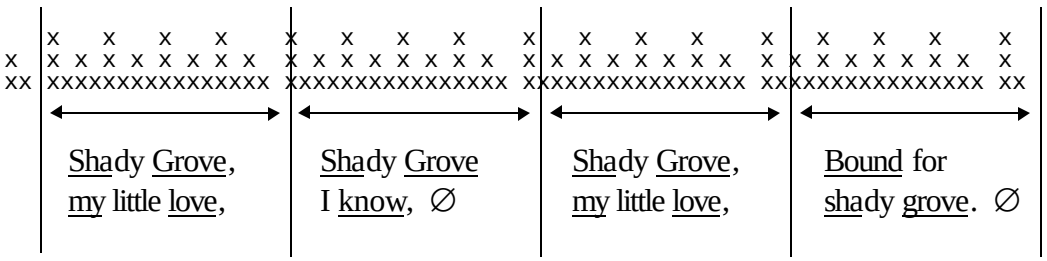
Our argument relies on the presence of large breaks in the phonological phrasing, or "P-structure," to use Selkirk's (1986) term. Each intuitive line of a song corresponds to a phonologically unified string, and consecutive lines are separated by phonological breaks. For background on the theory of P-structure and its relevance to metrics, see Selkirk 1980, 1986; Nespor and Vogel 1986; and Hayes 1989.

Our claim is as follows. If one takes almost any song, and aligns it with the correct "infinite" rhythmic grid, then it will be possible to cut the grid into perfectly equal pieces, such that the beginning and end of each piece will coincide with a large break in the P-structure of the associated verse. We do this below for (1) and (2):

(4)



(5)



The four regions in each of (4) and (5) correspond to the locations of stretches of text that are plausibly linguistically separated by large phonological breaks: each line of each quatrain could plausibly be thought of as a separate Intonational Phrase. The vertical lines represent divisions that are respected by the phrasing of the text: they form our proposed division of the infinite grid into territories, one for each line.

The chunking can be thought of in two ways.

First, the textual material of a line seldom spills over into grid space allocated to a neighboring line; nor does it ordinarily take up space on the infinite grid that would fall before or after the stanza itself. That is, the text of a line is usually *bounded* by that line's associated grid.

Second, there seems to be some pressure for the beginning of the line actually to *abut* the line boundary. The lines of (1), "Little Musgrave," all begin with stressless syllables, filling up the grid to the very edge by filling the relatively weak metrical position with which the "Little Musgrave" grid begins. The lines of (2), "Shady Grove," all begin with a stressed syllable. This permits them to fill *their* grid to the very edge, since the "Shady Grove" grid begins with a strong position.

2.1 A Closer Look at Grid Alignment

Let us evaluate this second claim, the one concerning abutment, in more detail. Looking at all the stanzas in each song, we can see that the lines of "Little Musgrave" usually begin with one or two stressless or weakly stressed syllables, which can fill the weak positions before the first strong position. Below, these stressless syllables are rendered in italics; the syllable filling the first strong beat is in boldface.

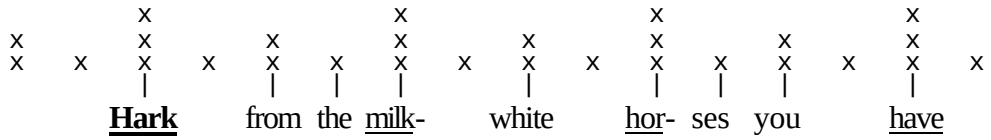
(6) Stanza 2: *The* **ve**ry first man she saw that day
Was **lit**tle Matthy Grove. ∅
Rise **up**, rise up little Matthy Grove
And **you** go home with me. ∅

Stanza 4: *Now* **if** I am Lord Dannel's wife,
Which **you** suppose me to be, ∅
Lord **Dan**nel's gone to the ship
For to **sail** upon the sea. ∅

Stanza 6: *He* **run** till he came to the broken-down bridge,
He **leaned** to his breast and he swum, ∅
He **swum** unto the other side,
And he **fell** to his feet and he run. ∅

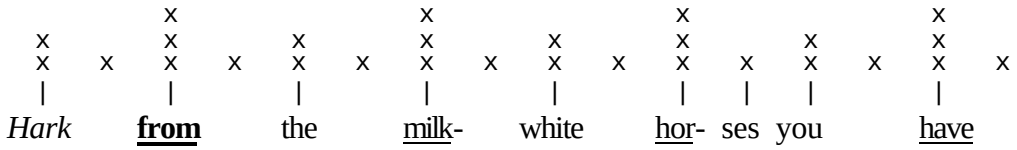
There is a small minority of lines that conceivably might start with the strong position, thus failing to fill the left edge of the grid:

(7)



We cannot really tell where *Hark* goes in this line, since our source only aligns the first stanza with the music. Another possibility, which seems more plausible in the sung context, is (8):

(8)



Other lines of this type include those in (9):

(9)a. (**Hark** from/*Hark* **from**) the gold that's on your fingers [5] (3.1)
b. (**Fell** to/*Fell* **to**) his feet and he run. ∅ (5.4)
c. (**Then** they/*Then* **they**) fell to hugging and kissing (14.1)
d. (**Lies** in/*Lies* **in**) your arms asleep? ∅ (15.4)

But these form a small minority in the song, which has 76 lines total.

Turning to "Shady Grove," we find that most of the lines in the song are arranged to begin in *strong* metrical position, thus being left-aligned with the "Shady Grove" grid:

(10) Verse 1: **Cheeks** as red as the blooming rose,
Eyes of the deepest brown; ∅
You are the darling of my heart,
Stay till the sun goes down. ∅

(chorus = first verse)

Verse 2: **Went** to see my Shady Grove
She was **stand**ing in the door, ∅
Shoes and stockings in her hand,
Little bare feet on the floor. ∅

[5] We will not venture a guess as to where the strong beats are in this line or in (9c).

Verse 3: **Wish** I had a big fine horse,
Corn to feed him on, ∅
Pretty little girl, stay at home,
Feed him when I'm gone. ∅

Verse 4: **Sha**dy Grove, my little love,
Shady Grove I say, ∅
Shady Grove, my little love,
Don't **wait** till the Judgment Day! ∅

The text of "Shady Grove" actually appears to have been somewhat contorted to fit its grid: line-initial function words are dropped in all cases where it would not lead to unintelligibility (2.1: *I*, 3.1: *I*, 3.2: *and*, 3.3: *a*, 3.4: *and* [6]). "Little Musgrave" fits its grid more smoothly, but one might imagine that its use of the archaic verbal prefix *a-* in the following lines is motivated by the need for a stressless line-initial syllable:

(11)a. *A*-**hang**ed you shall be. ∅ (9.4)
b. *A*-**driv**ing his sheep to fold. ∅ (13.4)

Songs with the "Little Musgrave" grid are considerably more common in our corpus than those with the "Shady Grove" grid, and indeed it seems much easier to make up songs of the "Little Musgrave" type. This is probably because English phrases characteristically start with stressless function words. The "Little Musgrave" grid is thus often used for long ballads, where textual flexibility is needed; whereas the "Shady Grove" grid is preferred for shorter, repetitive, rhythmically propulsive songs, the sung equivalent of fiddle tunes (Ritchie 1965:43, 70).

2.2 Right Edge Alignment

We have established so far that a song in a particular grid will typically avoid placing the syllables of a linguistic line (defined by phonological phrasing) outside the grid space allocated to that line. Further, there is pressure for the linguistic line to begin at a point precisely coinciding with the beginning of the line grid. One might wonder why there is not a similar pressure for lines to *end* at the ending of the line grid. There are several reasons why this is not seen.

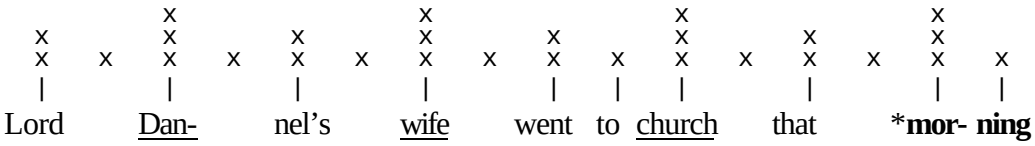
First, if we adopt the view of Lerdahl and Jackendoff (1983:18) that the rhythmically defining point in time of an event is its *onset*, then in principle it is not possible to place a syllable at the very end of the grid—the syllable's own inherent duration must intervene.

Second, there are rules of sung-verse metrics that impede the placement of syllables at the end of the line. Hayes and Kaun (1996) argue that sung verse tends to match the number of beats assigned to

[6] A discussion of the corresponding casual-speech process of spoken English may be found in Akmajian et al. (1984).

a syllable to the natural phonetic duration of a syllable. Line-final syllables are necessarily phrase-final, and as such tend to be phonetically long (Wightman et al. 1992). Thus placing line-final syllables near the end of the line tends to slight their natural phonetic duration, and sounds rhythmically quite awkward. The following example illustrates this:

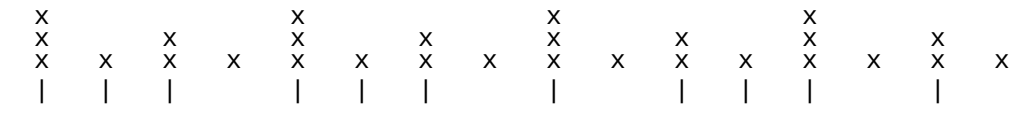
(12)



Further, the theory of "rhythmic cadences" proposed in Hayes and MacEachern (1998) allocates the end of the line grid to silent beats, which serve to highlight the constituency of the quatrain. These, too, would tend to block the filling of the right edge of the line.

For these reasons, we cannot expect the ends of lines to abut the ends of their grids. However, we can still test to see if the end of the line is *bounded* by the right end of its grid, just as it is by the left end. Consider the following comparison. Among the songs that use the "Shady Grove" grid are a number that employ four-beat lines with a terminal falling stress contour (a "feminine ending"), shown in boldface below:

(13)



Ritchie 1965, p. 21

(14) a. Goodbye girls, I'm goin' to **Bóston** Ritchie 1965, p.25
b. Dance to your Daddy, my little **láddie** Ritchie 1965, p. 89
c. Madam, I have gold and **sílver** Karpeles 1932, #92F
d. Now, my lad, we are **márried** Karpeles 1932, #154A
e. Lord, I'm a-climbing Jacob's **ládder** Karpeles 1932, #208B
f. Chickens a-crowing in the Sourwood **Móuntain**, Karpeles 1932, #216C
g. Buck Creek girl don't you want to go to **Crípple Creek**? Karpeles 1932, #241A
h. What shall we do with a drunken **sáilor**? traditional

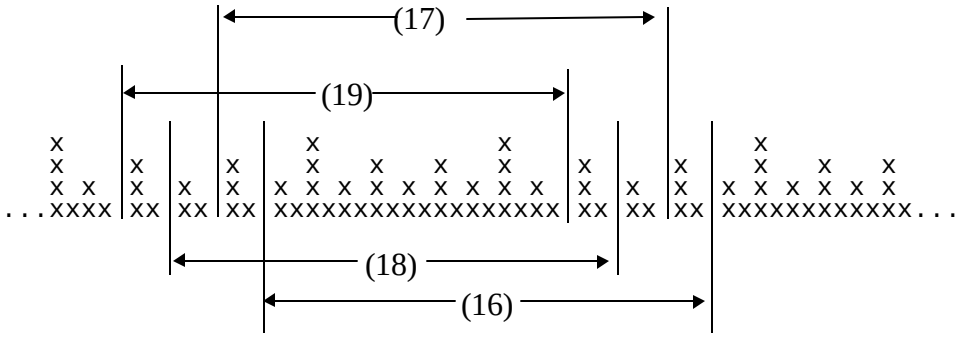
This use of the position following the fourth strong one in these songs is characteristic and occurs in all corresponding stanzas. In contrast, feminine endings like (13)-(14) are quite unusual in songs that use the "Little Musgrave" grid. They typically occur as a one-time license to include a feminine-ending word in a particular stanza (see section 4 below). This distribution makes sense under our assumption

that a song possesses a grid designated for particular lines: the "Shady Grove" grid includes enough room for a feminine ending, but the "Little Musgrave" grid does not.

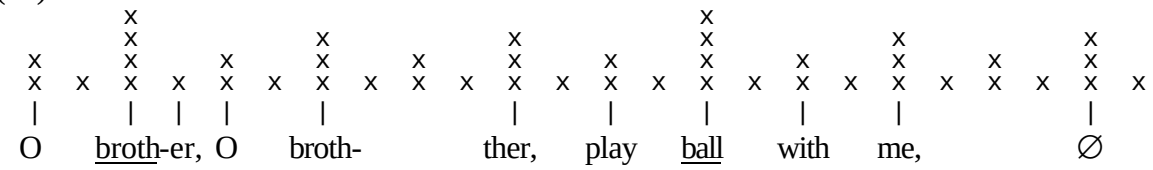
2.3 A Infinite Grid with Multiple Division Points

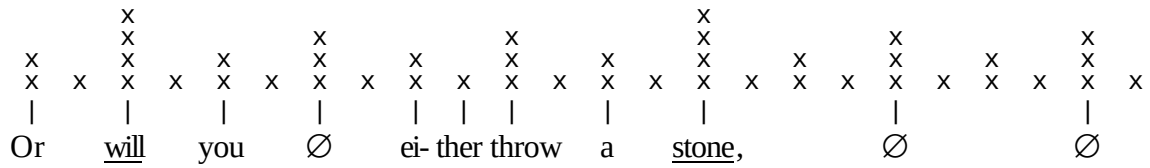
The infinite grid of (3) has only two characteristic divisions in English folk verse, namely the "Little Musgrave" and "Shady Grove" grids. But there are other, more complex infinite grids that permit of more divisions. The infinite grid in (15) gives rise to four distinct line grids, marked graphically below and illustrated with actual songs in (16)-(19). All songs with this grid are in a slow triple rhythm.

(15)



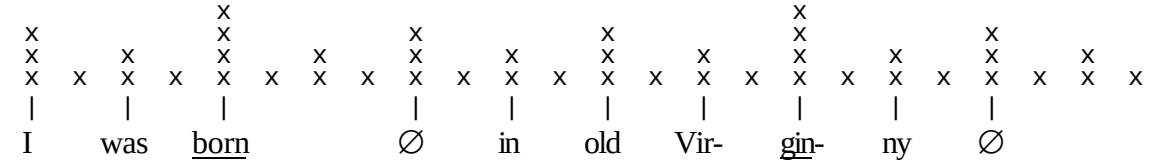
(16)

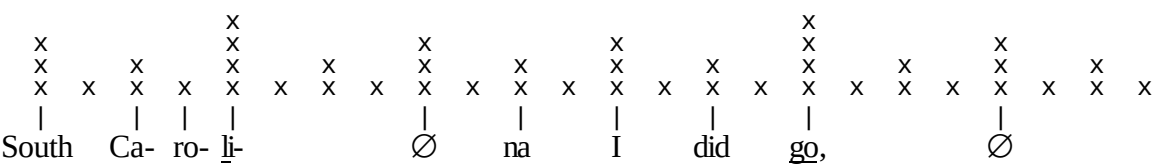




Karpeles 1932, #12G

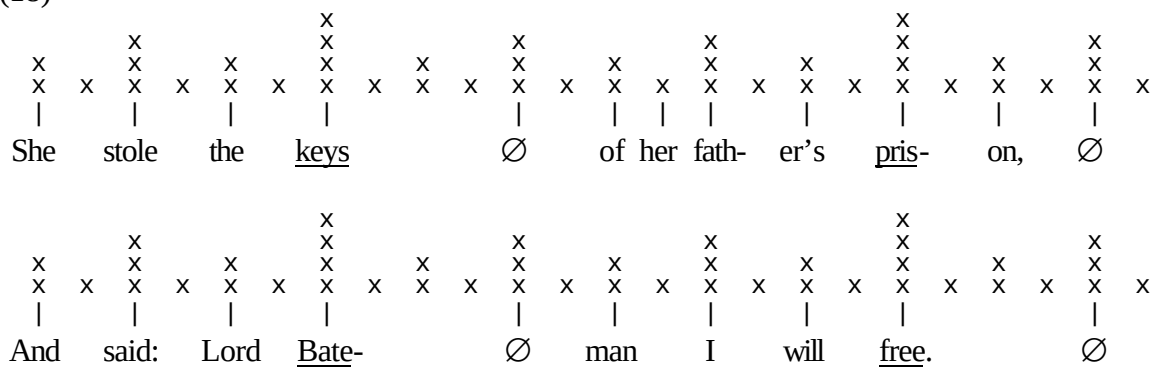
(17)





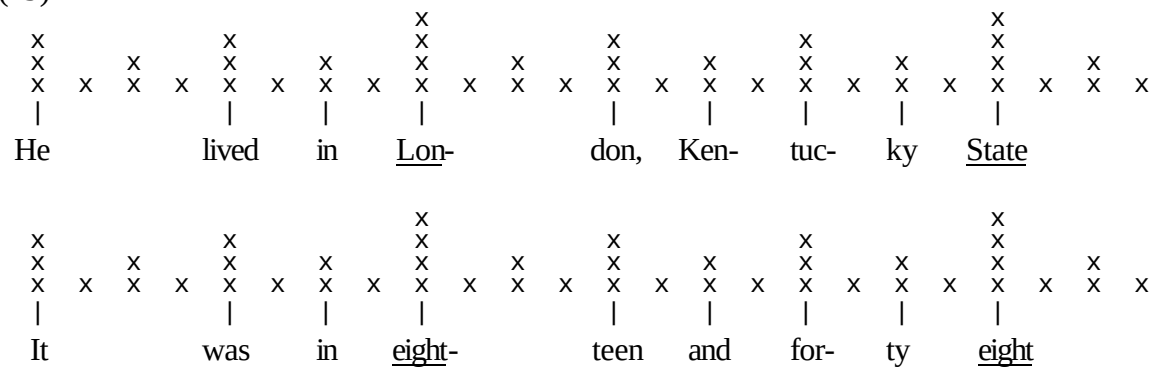
Karpeles 1932, #167A

(18)



Karpeles 1932, #13G

(19)



Karpeles 1932, #192

All four line grids are retained fairly closely throughout their songs.[7]

2.4 Summary

We have argued that the distinct behavior of songs using grids from the same infinite pattern, both in their characteristic line beginnings and possible line endings, indicates a reality for the line as a tacit unit of folk verse composition.

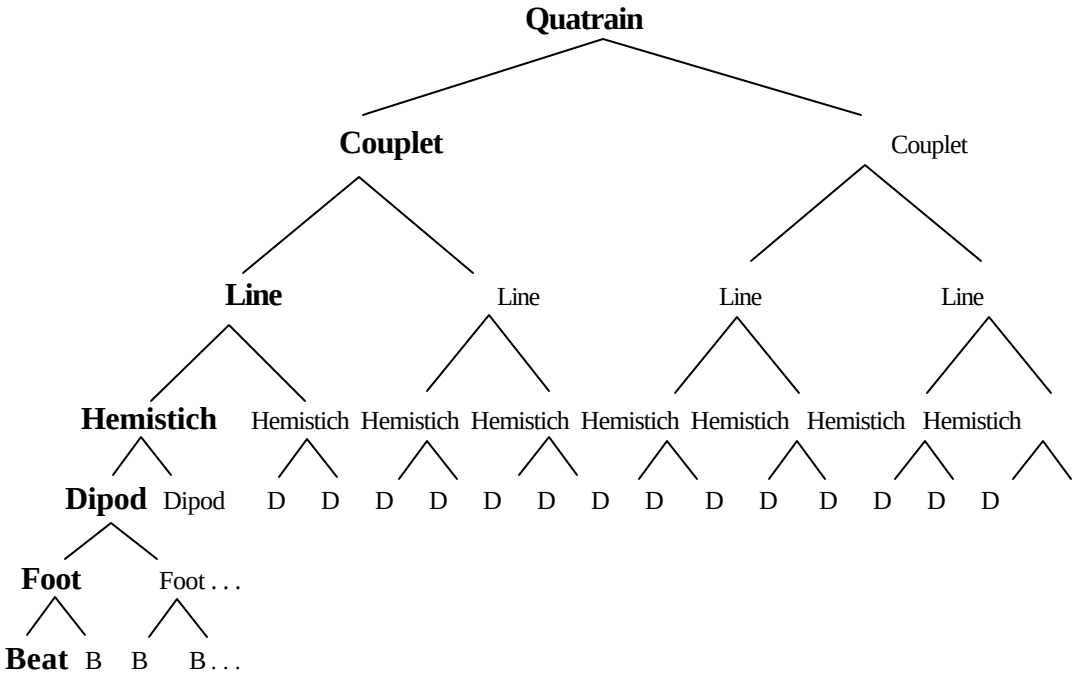
The method of inspecting the alignments of grids and P-structure seems to be the most precise for locating line boundaries. However, once one has established the boundaries in this way, corroborating evidence emerges. In particular, rhyming positions turn out to be overwhelmingly line-final. Moreover, the deployment of silent beats at the ends of lines follows lawful patterns, explored in Hayes and MacEachern (1998). Neither of these diagnostics locates the line boundary with the precision obtained from inspecting line beginnings, but they virtually never diagnose a different parse into lines.

[7] The grids are not of equal frequency. Grid (18) seems to be the most common; (19) is attested in our corpus only once.

3. Lines in the Metrical Hierarchy

A commonly held view of folk verse form (see Lindblom and Sundberg 1970; Attridge 1982: 116; Hayes 1988:sec. 12.5) is that lines form only one layer in a quite deep constituent structure that embraces whole stanzas. Many songs consisting of four lines can be assigned the constituent structure given below:

(20)



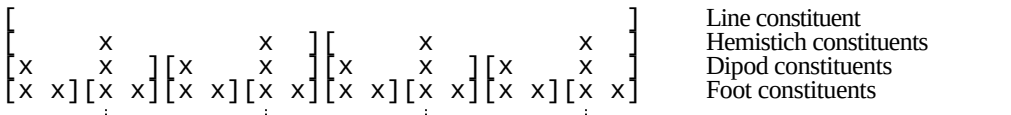
The sort of evidence obtainable for such a structure is essentially the same as we used for lines: agreement of metrical constituency with phonological constituency, the patterning of silent beats at the ends of constituents, and rhyming. The latter highlights couplet constituency through parallelism (e.g. ABAB rhyme), and is fairly often found lower than the line level, with rhyming hemistichs. For discussion of the evidence, see Hayes and Kaun (1996) and Hayes and MacEachern (1998).[8] It should be noted that the linguistic manifestation of bracketing tends to be weaker, and only statistical in character, at the lower levels.

This hierarchy makes it possible to do away with the "infinite grid" as an element of the theory of metrics. Rather than assuming an infinite grid, we can attribute the similarity of line grids like (1)-(2) or

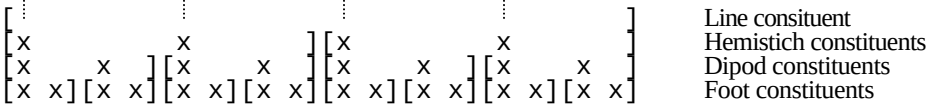
[8] In the present context, one can consider the line "Pretty little girl, stay at home," from (10), 3.3. Here, dropping of the proclitic function word *to* that would normally precede *stay* creates perfect alignment of linguistic phrasing with the second hemistich.

(16)-(19) to *shared constituent structure*. Here, for instance, are the "Little Musgrave" and "Shady Grove" grids, endowed with appropriate constituency:[9]

(21) "Little Musgrave"



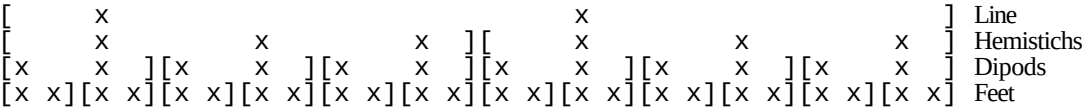
(22) "Shady Grove"



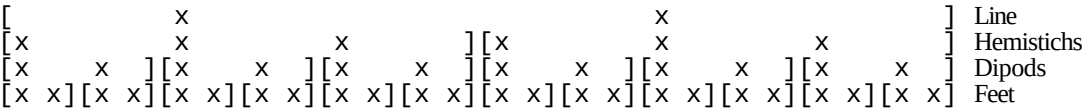
With constituency, it can be seen that the difference between the "Little Musgrave" and "Shady Grove" grids is simply that of iambic vs. trochaic (rising vs. falling) dipods. The dotted lines in (21)-(22) are to help show that distinct prominence contours coupled with identical constituency yield identical infinite grid sequences.

The differences among the four grids of (16)-(19), which share the infinite grid of (15), can likewise be traced to different labeling at different levels.

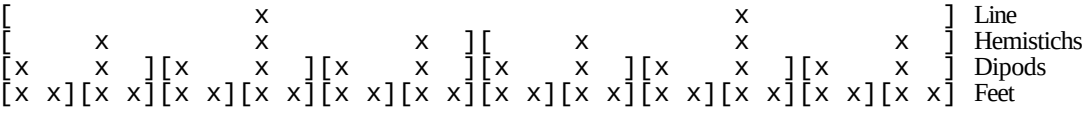
(23) Constituentized Version of (16)



(24) Constituentized Version of (17)



(25) Constituentized Version of (18)



[9] The relationship of the grid and constituency is as follows: at the lower levels, every constituent is headed, in the sense of Halle and Vergnaud 1987, in whose style the representations are drawn. At the higher levels, constituency is solely a grouping device, and has no connection with beat strength (Lerdahl and Jackendoff 1983:21-25).

(26) Constituentized Version of (19)

```
[                        x                                    x       ] Line
[x           x           x         ][x           x            x       ] Hemistichs
[x     x   ][x     x   ][x     x   ][x     x   ][x     x   ][x     x  ] Dipods
[x x][x x][x x][x x][x x][x x][x x][x x][x x][x x][x x][x x] Feet
```

Grids (16)-(19) can be classified by the prominence contours of their dipods and hemistichs, thus:

(27)

Grid	Hemistich type	Dipod type
(16)	dactylic (initial-strong)	iambic
(17)	amphibrachic (medial-strong)	trochaic
(18)	amphibrachic	iambic
(19)	anapestic (final-strong)	trochaic[10]

Summing up: the "infinite grid" we were using as an expository device emerges as epiphenomenal under the view that the grid is completely parsed into constituents. The effects of the "infinite grid" follow from the obligatory parallelism (identical expansion) in folksong of all constituents of the same rank.

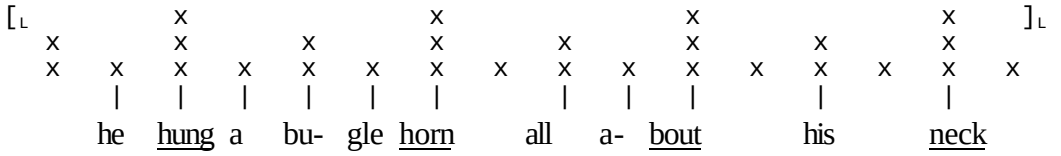
4. Exceptions

To be sure, there are counterexamples to our claim that the imaginary infinite ribbon of the metrical grid always can be partitioned perfectly into lines, using the P-structure of the text. On occasion, one finds a song in which there is a *statistically dominant* partitioning, but with one or two places in which P-structure and line boundaries disagree. If one considers the statistically dominant partitioning to be the structurally authentic one, one can think of the exceptional cases as involving the "theft" of positions by one particular (linguistic) line either from the preceding or the following metrical line. An example of leftward theft is given in (28a), while the song in (28b) illustrates rightward theft.

(28)a. $[_L$ He <u>jumped</u> u<u>pon</u> the <u>milk</u>-white <u>steed</u> $]_L$

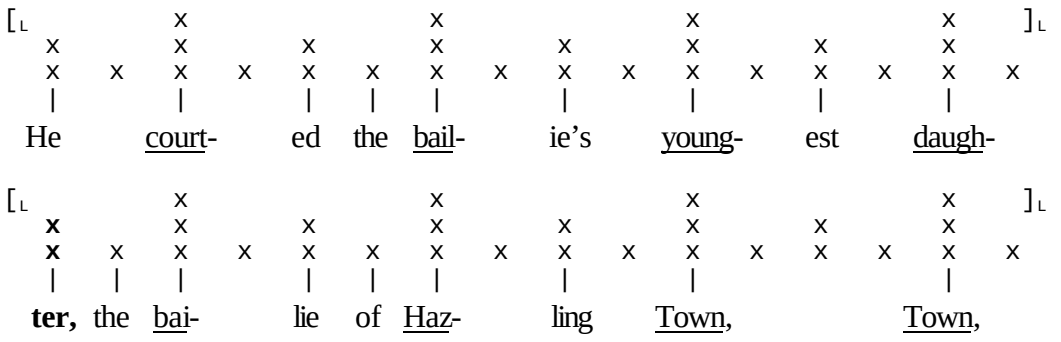
```
[L          x                   x                   x                   x     ]L
   x        x         x         x         x         x         x         x
   x    x   x    x    x    x    x    x    x    x    x    x    x    x    x    x
   |        |         |    |    |         |         |                   |
  And      she       rode the  dap-      ple       gray       /        And
```

[10] Clearly, one should be on the lookout for the dactylic-hemistich/trochaic-dipod and anapestic-hemistich/iambic dipod varieties, or else for some principled reason why they should not exist.



[L And so went sounding away. ∅]L Karpeles 1932, #4B

b. [L There was a youth and a comely youth,]L
[L One of the squire's sons. ∅]L



[L The bailie of Hazling Town. ∅]L Karpeles 1932, #30B

Our view that such cases are exceptional and non-threatening to the theory is supported by their statistical rarity. In the corpus of 1028 Southern Appalachian folksongs studied in Hayes and MacEachern (ms.), only 107 (= 10.4%) involved such "thefts" of metrical positions. The percentage would come out considerably lower if calculated from total opportunities to steal rather than total songs. Few songs were found in which the line boundaries were so fluid as to defy the establishment of a grid norm for line division. [11]

A limitation on exceptional cases emerges if one considers the question of *how much* material may be stolen. Leftward theft never takes more than the last strong beat of the preceding line, and rightward theft virtually never reaches even the first strong beat of the following line. Constructed examples involving thefts beyond these limits sound quite odd to us:[12]

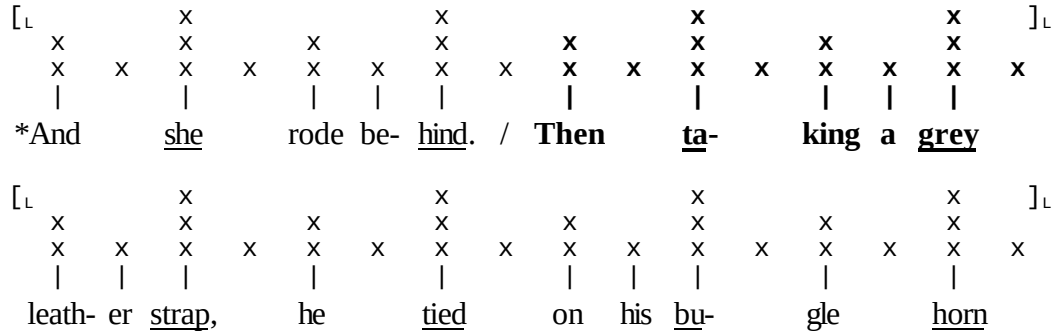
[11] The rap material studied by Anderson (1992) is a possible candidate for a verse type with completely "blurred" lines; even there, however, a case could be made for a normative line division point.

[12] The strangest theft we have encounted in actual data is the following:

(i) She lov porter and to prevent the day
Of marriage, they sent this poor young man away. Karpeles 1932, #64A

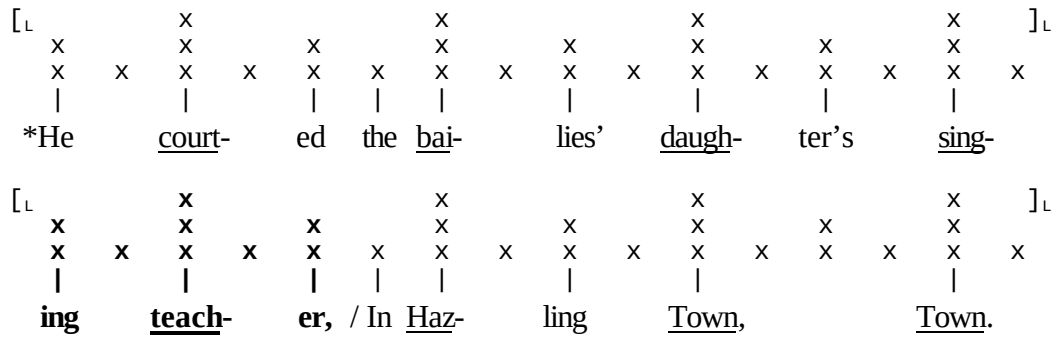
Nothing else in our corpus sounds anywhere near so odd.

(29)a. [$_L$ He jumped upon the milk-white steed]$_L$



[$_L$ And so he went a-sounding away.]$_L$ (construct, after (28a))

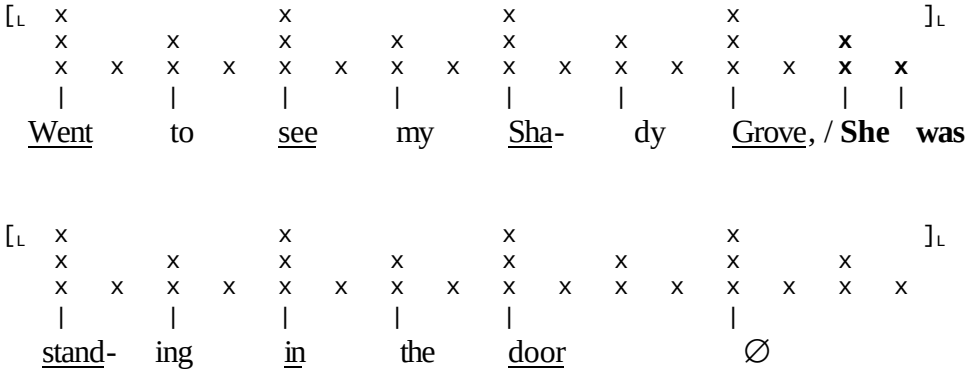
b. [$_L$ There was a youth and a comely youth,]$_L$
[$_L$ One of the squire's sons. ∅]$_L$



[$_L$ It was in Hazling Town. ∅]$_L$ (construct, after (28b))

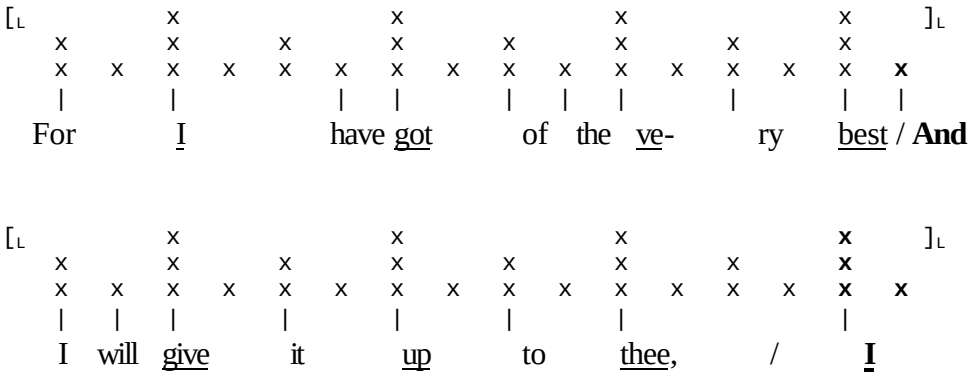
The patterning of theft in the exceptional cases can be characterized more precisely. There are two basic types. One is exemplified by (28a) and involves the theft of a strong position from the preceding line. This pattern is a stable aspect of particular songs, and is observed in every stanza. The other type of theft is exemplified by (28b): it involves only weak or medium-strength positions, and is characteristically sporadic, occurring in only one stanza or just a few stanzas of a song. We believe that the sporadic type occurs primarily to accommodate particular texts: (linguistic) lines with feminine endings (i.e. stressed + stressless), as in (28b), or lines with more initial pretonic syllables than the grid can handle. In the case of the "Shady Grove" grid, this means any pretonic syllables at all, as is shown in (30) for one of the exceptional cases of stealing in this song ((10), line 2.2):

(30)



But leftward stolen beats occur occasionally even in songs with the "Little Musgrave" grid, if there are enough pretonic syllables that need to be accommodated. This can be seen in the third line of the following song:

(31) [$_L$ Come in, come in, my pretty little boy,]$_L$
[$_L$ And stay this night with me; ∅]



[$_L$ will give it up to thee. ∅]$_L$ Karpeles 1932, #18A

The weak-beat thefts of both (30) and (31) conform to the principle that weak-beat theft is sporadic. In "Shady Grove," only two of the twenty lines of the song involve theft, and in (31), there is only one theft in 32 lines.[13] In contrast, the strong-beat stealing seen at boldface **I** in (31) is a structural characteristic of the stanza, and as far as we can tell is consistently carried out in all the verses.

It may be asked why theft of strong positions should only occur in the leftward direction. Our conjecture would be that, in English at least, it is only in the leftward direction that the positions are there to be stolen: English commonly uses truncated lines that do not fill the fourth strong position, so that

[13] The theft in (28b) is unusual in the degree to which it is repeated in other stanzas: four of the ten stanzas of (28b) show a theft in the same position. Possibly this song is truly exceptional, with theft in this location felt to be a regularly available licence.

empty positions are available to be filled with material from the following line. In contrast, English very seldom leaves the first position empty, so theft from this position (as in (29b)) is far more disruptive.[14]

To recapitulate, characteristic correspondences between linguistic phrasing breaks and particular metrical locations indicate that the line is an authentic, well-defined metrical constituent of the sung-verse grid. There exist counterexamples to this claim, which involve theft in both directions. But insofar as such interline thefts are statistically unusual compared to the well-behaved cases, and are strictly limited in the number of beats that may be stolen, we believe that we have reasonably good empirical support for positing the line as a bracketed unit.

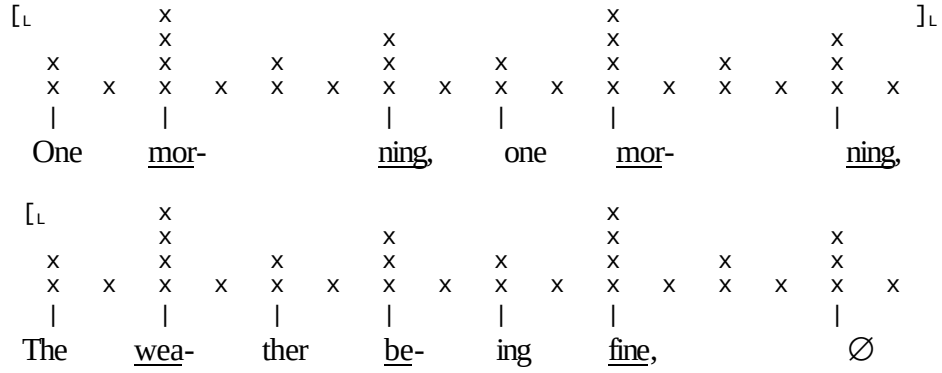
5. Ambiguous Line Levels

As Burling (1966:1423-4) and Attridge (1982:115) pointed out, there is a further class of delicate cases, in which the problem is an embarrassment of riches: sometimes one can parse into lines at more than one metrical level. Consider, for instance, the following song, which we analyze first as two quatrains, with eight short lines; then as a single quatrain of four long lines:

(32)a. Two-Quatrain Analysis

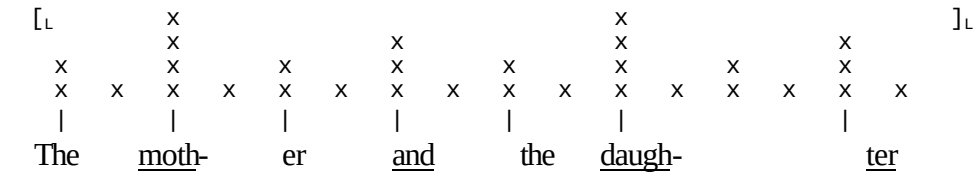
Quatrain I:

Couplet I:



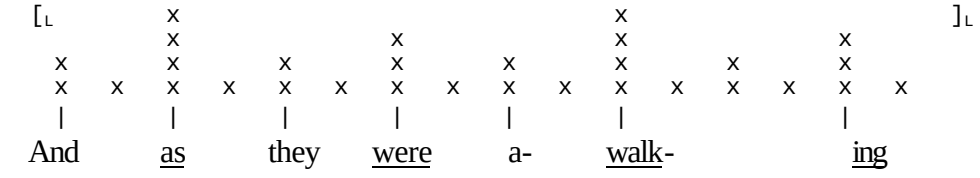
[14] It would be interesting to examine sung-verse traditions like Bengkulu (Burling 1966), which prefers to leave line-*initial* strong beats empty: would Bengkulu favor the rightward theft of strong beats?

Couplet II:

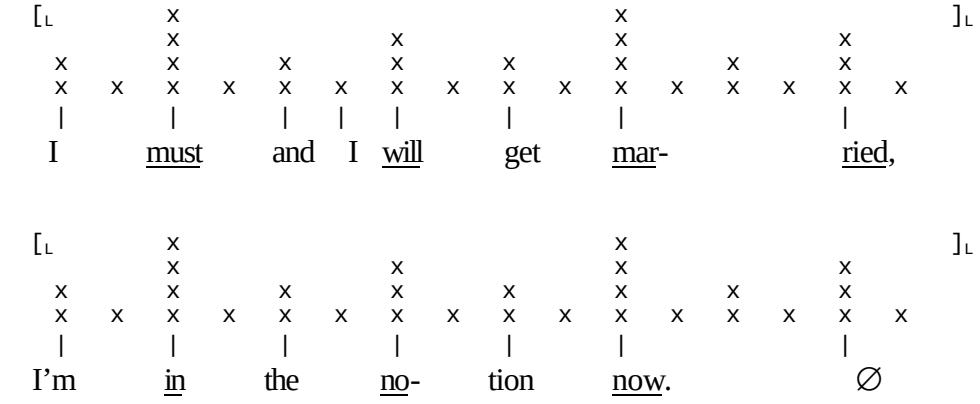


Quatrain II:

Couplet I:



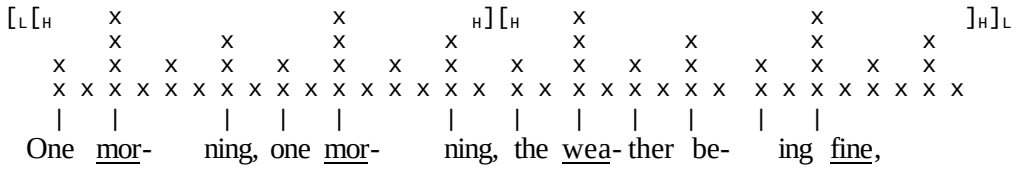
Couplet II:

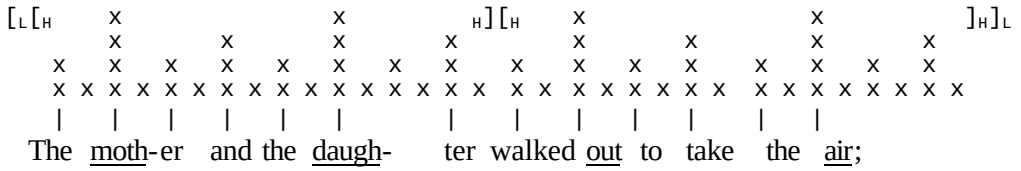


b. One-Quatrain Analysis

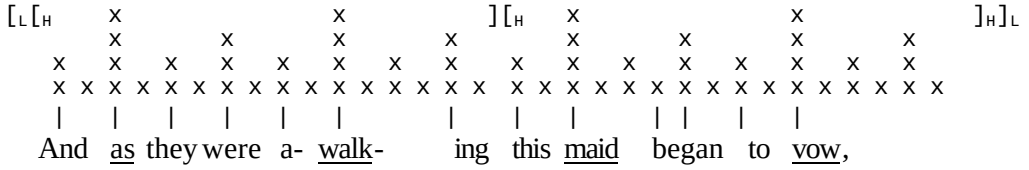
Quatrain:

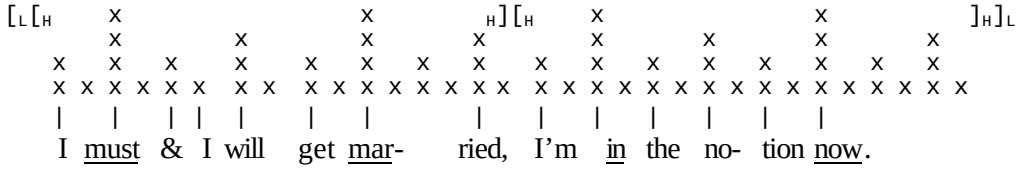
Couplet I:





Couplet II:





(Karpeles 1932, #128)

In a sense, such cases are unsurprising. We conceive the basic principles of metrical form for English folk verse to be relatively abstract: they involve requirements for strict identity of constituents of equal rank, isochronism of rhythmic beats at all levels, and a strong preference for binary and ternary branching.[15] At this level of abstraction, there is no such thing as a "line" as a formal primitive; what we call the line is simply one level in the hierarchy. In this view, the metrical hierarchy could consist of unlabeled levels. Thus, if there are cases where our intuitions on what counts as the "line" are sometimes blurred, this should not come as a surprise.

[15] Of the two, ternary branching clearly has the marked status (Lerdahl and Jackendoff 1983:49). While many songs have a completely binary structure, all the way up and down the hierarchy, ternary structure appears to be limited almost all the time to just one level of the grid. Only one of the 1028 songs in our data corpus has two levels of ternarity, and none has three or more.

As for what creates intuitions (for example, those of music editors) about what the lines are, we would suggest the following rough criteria:

(a) The agreement between the units of the metrical hierarchy and P-structure often achieves full saliency at (what we intuit to be) the line level. That is, at smaller units such as hemistichs and dipods, the mismatches are far more frequent. At higher levels, such as couplet or (in two-quatrain stanzas) quatrain, the P-structure breaks are only slightly more salient than at the line level. Because shorter units seem to be easier to apprehend, the result is that the line level seems to be the level at which the "echoing" of metrical bracketing with P-structure bracketing is the clearest (Attridge 1982:107).

(b) There seems to be a rough maximum for the internal metrical complexity of lines. Restricting our attention to binary meters, we find that a metrical grid with 16 terminal positions typically suffices to provide a rhythmic location for every syllable in the line (as we intuit it). Less often, we find songs whose lines require 32 grid positions for their scansion. Lines requiring 64 or 128 positions for their scansion are quite unusual, at least in folksong.

(c) Third, stanzas (defined operationally as the sequences sung to the same tune) tend to be long enough to permit at least four "lines."

These three criteria together suggest an (admittedly vague) empirical hypothesis: for every song, there should be some level that meets all three criteria together. We find the most songs do possess such a level. Of course, there is also the possibility that more than one level will meet the criteria just given. In such cases, the analysis of the material into lines will be ambiguous. This appears to be the case for example (32) and parallel cases.

6. Summary

This paper has investigated the extent to which the notion "line" in English folk verse can be ascribed theoretical significance. We first argued that a line-like constituency imposed on the continuous metrical grid appears to be an empirical necessity: the strictly periodic appearance, on a meter-specific basis, of grid locations where P-structure breaks are required, demonstrates this. The lines thus diagnosed serve important additional structural purposes in defining rhyme schemes and patterns of line-final empty positions.

To this basic point, we have added two complications: a discussion of the less-usual cases where P-structure boundaries disagree with line boundaries, and the cases where more than one level of the binary hierarchy could serve as the line level. Neither appears to threaten our basic result.

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