

## Linguistics and the Study of Folk Poetry\*

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### 1. Poetic Systems and Linguistic Systems

I will begin with some general remarks about the relationship between poetic systems and linguistic systems proper, using a single folk song to illustrate my points. Then I will turn to some comments on what linguists can have to say about poetry; in so doing, I will introduce a couple of poetic topics that have recently interested me.

My exemplar is the first verse of the "Irish Rover,"<sup>1</sup> reproduced below as it appears in a collection of Clancy Brothers and Tommy Makem songs (but with my line divisions):

- |     |   |   |
|-----|---|---|
| (1) | In the year of our Lord, eighteen hundred and six,      | 1 |
|     | we set sail from the Coal Quay of Cork,                 | 2 |
|     | We were sailing away with a cargo of bricks             | 3 |
|     | for the grand City Hall in New York.                    | 4 |
|     | We'd an elegant craft, It was rigged 'fore and aft,     | 5 |
|     | And how the trade winds drove her.                      | 6 |
|     | She had twenty-three masts and she stood several blasts | 7 |
|     | And they called her the Irish Rover.                    | 8 |

In discussing this example, I will want to distinguish between linguistic systems proper and what I shall call, for want of a better term, (*linguistic overlay systems*). With this latter term I will refer to poetic forms, language games, secret languages, systems of expressive word formation, codes and ciphers, writing systems, and some conventional schemata for borrowing words from one language into another (this is a representative, and not necessarily an exhaustive, list). The characteristics of linguistic overlay systems are, first, that

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\* This paper is dedicated to the memory of Roman Jakobson, who got me into the study of poetry in the first place. An earlier version was presented at the University of California, Santa Cruz, in May 1982. This paper is a lightly edited version of a Linguistic Institute Forum Lecture (University of Maryland, College Park, August 1982). I began work on it at the Center for Advanced Study in the Behavioral Sciences; I am grateful to the Spencer Foundation for financial support and to the Ohio State University for sabbatical leave.

they are in an important sense *detachable*—it is possible to talk about the linguistic system with which they are associated without referring to the overlay systems (but it is not possible to talk about the overlay systems without reference to the linguistic systems with which they are associated)—and second, that the principles that appear in these overlay systems are, at least in part, significantly *unlike* the ones that appear in linguistic systems. My claim here is that an overlay system embraces a set of conventional principles involving linguistic material, but that these principles differ in type, as well as in detail, from the (equally conventional) principles by which a linguistic system is organized. The class of cases I have in mind here is, of course, poetic forms, in particular the forms of folk poetry.<sup>2</sup>

A side issue I must deal with before passing to the main events is the distinction between linguistic overlay systems, as I have just characterized them, and *varieties* of a language—dialects, styles, and registers. Overlay systems and varieties have properties in common: both are conventional and structured, and varieties differ from one another in some of the same gross ways that overlay systems differ from one another and from linguistic systems proper—in particular, in the frequency of use of certain items or constructions. But the touchstone in distinguishing overlay systems, which are in a sense outside of a linguistic system, from varieties, which are themselves linguistic systems, is the second criterion I mentioned above, according to which we expect overlay systems to exhibit principles that are, at least in part, different in character from the principles in *any* variety.

Consider the first verse of the “Irish Rover.” It divides into eight *lines*,<sup>3</sup> as do the remaining verses of the poem. The line unit is roughly comparable to the linguistic unit *sentence*, though the two units are not coextensive: lines can be shorter than a sentence or can comprise several sentences or parts of several sentences. Moreover, the lines of “Irish Rover” are regulated according to the number of strongly accented syllables they contain. The pattern appears to be 4-3-4-3-4-3-4-3 (later I will argue that this is mere appearance, that there is a sense in which all eight lines have four strongly accented syllables). Now this sort of patterning is simply never seen in linguistic systems; no variety of any known language requires that its sentences have some fixed number of strongly accented syllables.

As the poetic unit the *line* and the linguistic unit the *sentence* are roughly comparable, so are the poetic unit the *verse* and the linguistic unit the *paragraph*. Again, they are not identical, only comparable. And again the poetic unit is regulated in what is from the linguist’s point of view an unexpected way: in the “Irish Rover,” various lines rhyme in pairs (lines 1 and 3, 2 and 4, 5 and 7, 6 and 8). Rhyme—the requirement of phonemic identity between segments in specified positions in lines—is a common organizing principle governing verses of poetry (especially folk poetry), but nothing similar to it ever seems to govern

paragraphs in any variety of ordinary language; no variety requires phonemic identity between segments in specified positions in sentences.

## 2. *Relating Poetic Systems to Linguistic Systems*

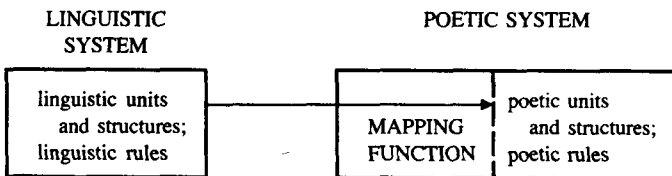
With this side issue out of the way, I consider the abstract form of the relationship *between* the two systems I am considering, a linguistic system and a particular overlay, a poetic system.<sup>4</sup> The general scheme I propose is diagrammed in Figure 1. On the one hand, we have the language system, with its units and structures and with the rules that describe these units and structures. Here I have in mind phonological units like features, segments, and syllables; phonological structures like those within syllables and those in which syllables are combined into larger prosodic units; grammatical units like words, phrases, and sentences; grammatical structures both below and above the word level; and a variety of rules describing how these various units are combined into these various structures.

On the other hand, there are poetic units, structures, and rules. Some of these—the syllable, for instance—are also part of the language system, but most have no simple correspondent in the language system: this is the case for the poetic units the foot, the line, and the verse, and for the poetic structure the accentual foot type (iamb, trochee, dactyl, anapest, and their ilk), and in general for poetic rules regulating the form of lines and verses.

A very important part of the picture in Figure 1 is the sub-box responsible for *relating* the linguistic system and the poetic system. Following the usage of Halle and Kiparsky, among others, I have labeled this the *mapping function*. The task of this piece of the poetic system is to match poetic structures to linguistic structures, and there are many ways one could imagine this task being done. For English folk poetry, the mapping function has three things to do:

- (1) a. It must match phrases and sentences of the language with poetic lines and verses.
- b. It must match prosodic structures (of syllables, words, and phrases) with metrical structures (of feet and lines).

**Figure 1. Poetic systems as related to linguistic systems**



- c. It must pick out certain portions of certain lines as relevant for rhyming principles, and it must define what is to count as matching for the purposes of rhyme.

(In other poetic traditions, the mapping function might have less work; rhyme is not a necessity, of course, and even metrical regulation is absent in some types of free verse, and, according to Hymes (e.g., 1977:sec. IV), in many oral narratives that nevertheless show line and verse structure.)

I must stress here that both the units and the rules in the linguistic system and the units and the rules in the poetic system are conventional. They are different, but they are both conventional. They are two interlocked systems.

Consider the first line of the "Irish Rover," repeated here:

- (3) In the year of our Lord, eighteen hundred and six

If you read this line out loud (especially if you know the music that goes with it), you will see that its metrical pattern is a very common one—what is technically called *anapestic tetrameter*: four feet, each of the anapestic (weak-weak-strong) foot type:

- (4) In thĕ yĕar | ōf oŭr Lórd, | ěightĕen hún | drĕd ānd sĭx

I will want to say, in fact, that the whole poem is anapestic tetrameter, even though there are deviations, or apparent deviations, from the abstract anapestic tetrameter pattern in these eight lines:

- (5)    ~ ~ ~ | ~ ~ ~ | ~ ~ ~ | ~ ~ ~

That is, I will say that the poetic system calls for four-foot lines, each foot of the **weak-weak-strong** type. So much for meter.

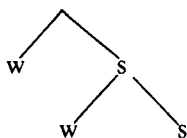
Now consider the divisions between what are written as lines, and certainly **perceived** as separate poetic subunits (whether or not these verses are written down). The divisions between these lines come at major constituent breaks. This is **signaled** by the fact that there is a major mark of punctuation at the end of most of them (a visual indication of a major constituent break). Line 7 ends in a division between two whole clauses, and could perfectly well have been punctuated with a comma. The remaining line is line 3, which ends in a noun phrase *bricks*, separated from a long modifying prepositional phrase (the whole of line 4)—again, a major constituent break. There is clearly a fairly close fit between the **large chunks** of the syntax and the major divisions of the poem. This fit is not **perfect**, again: notice that there is a division between clauses in the middle of line 5, so that **not all** the major breaks between syntactic constituents are located exactly at line breaks.

With respect to segmental matching—(2c) above—observe that the whole poem falls into two sub-pieces, each with four lines. Within each half-verse, the even-numbered lines must match one another and the odd-numbered lines must match one another (an ABAB rhyme scheme), and what must match within any pair of such lines are the last accented vowel nuclei and everything that follows them in their lines: *six-bricks*, *Cork-York*, *aft-blasts*, *drove (h)er-Rover*. The first two pairs here ‘match’ by virtue of having their relevant parts (phonemically) identical, and perhaps the last pair does as well, as it will if *her* is pronounced without an /h/. The third pair, *aft-blasts*, has /æft/ matched with /æsts/, or in British English, /aft/ matched with /asts/—not phonemic identity, but not gross disparity either, so perhaps this is a kind of ‘match,’ too. We shall have to see.

### 3. Details of the Matching Function

I now return to the metrical matching in the “Irish Rover.” In (6) below, I’ve given a relatively straightforward example of a prosodic structure (part of the linguistic system) assigned to a phrase, along with a metrical structure (part of the poetic system) assigned to the same phrase, *in the year*, from line 1.

(6)



PROSODIC (LINGUISTIC)

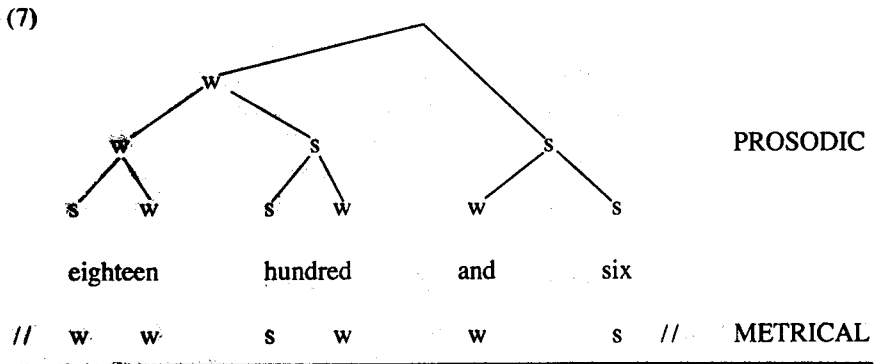
*in the year*

// w w s // METRICAL (POETIC)

The prosodic structure (which here follows the syntactic phrase structure) has a weak, relatively unaccented preposition followed by its object, a strong, relatively accented noun phrase; and within that noun phrase, there is a weak, relatively unaccented article followed by a strong, relatively accented noun. On the metrical side (annotated also with *ws* and *ss*, but enclosed within double slash lines to distinguish them from the *ws* and *ss* of the prosodic structure), at the point in the poem at which *in the year* occurs what is required is an anapest, *w-w-s*.<sup>5</sup> In this case the prosodic structure is also *w-w-s*, exactly what the meter requires.

This is as direct a matching as one could hope for. Now look at a more complex case, the phrase *eighteen hundred and six*, also from line 1. The prosodic structure is built on the accent patterns of the individual words (*eighteen* and *hundred*, both with accent on the first syllable) and their syntactic phrase

structure (as before, function words are the weak members of their constructions, and otherwise a weak modifier combines with a strong head). The metrical requirement is for two anapests in sequence:



Notice first that in (7) the division between words does not always correspond to the division between feet; *hundred* ends one foot and begins another. In general, the two types of units are quite separate from one another.

The exciting, and complicated, part of this business is the treatment of the word *eighteen*, which is stressed on the first syllable but nevertheless counts as two weaks for the purposes of the poetic meter. It turns out that people with some experience of particular metrical traditions are able to make fairly firm judgments about the metricality or unmetricality of individual lines. (These judgments are parallel in many ways to grammaticality judgments, and subject to some of the same problems.) An example like line 1 of the "Irish Rover" would be uniformly judged to be perfectly metrical, so that there must be some sense in which *eighteen hundred and six* is composed of two anapests, even though its first syllable is linguistically strong. It follows that the matching function cannot be as gut-simple as you might want it to be, prosodic weak matching metrical weak, prosodic strong matching metrical strong. Sometimes weak can match strong, and sometimes strong can match weak—without any sense of violation. In the case at hand, the relevant principle is not hard to see: the metrically strong syllable should be the linguistically *strongest* syllable in its foot. The first syllable of *eighteen* is linguistically strong, but it is part of a weak unit, while the first syllable of *hundred* is linguistically strong within a strong unit.

This is far from the whole story, of course. Kiparsky (1975, 1977), in particular, has explored matching functions that permit *w* corresponding to *s*, or *s* corresponding to *w*, without any accompanying sense of unmetricality.

A few words about segmental matching. I have already remarked that two of the four pairs of syllables (or sequences of syllables) that are required to match by the ABAB rhyming principle do so unproblematically, and that a third proba-



- |                               |                              |
|-------------------------------|------------------------------|
| c. We'd an elegant craft,     | It was rigged 'fore and aft  |
| d. She had twenty-three masts | and she stood several blasts |

(In lines 5 and 7, in fact, there is an S boundary in the middle of the line.) Most of the even-numbered lines are quite different, though line 4 has a reasonably large break at its midpoint:

(12) for the grand City Hall      in New York

Lines 2, 6, and 8; however, divide words: compound nouns in 2 and 6 (*Coal Quay, trade winds*), the one-word adjective *Irish* in 8.

It turns out that the differences between odd and even lines in the first verse are repeated in the other three. The even lines are metrically deviant and usually do not divide naturally into half-lines. On the other hand, the odd lines rhyme only in the first verse; in the later verses, the rhyme pattern for half-verses is ABCB, with rhyme between even lines only. But overall, the odd lines are normal, the even lines peculiar, with line 6 constituting a kind of crisis of deviation.

#### 4. *Poetics and Stylistics*

I now turn away from this particular folk song, to make some general remarks, stressing particularly what I think is an important distinction in the sorts of things that linguists have to say about poetry.

Linguists are, naturally enough, often interested in poetry for their own sectarian reasons. We might say that they are seeking linguistic uses of poetic facts; being interested, say, in the psychological reality of linguistic units like the syllable, the segment, the distinctive feature, the syntactic phrase, prosodic structures, and the like, they hope to mine poetry for its evidential nuggets. But there are also poetic uses of linguistic facts, and it is in this realm that we can properly speak of ways in which linguists can contribute to the study of poetry. What I have in mind here is the use of linguistic terminology, formalization, and concepts to illuminate poetry itself.

There are two ways in which this particular enterprise can go ahead. One approach might be called *narrow poetics*, or just *poetics* for short. Here we deal with the rule-governed, the conventional, aspects of poetic systems—for instance, principles requiring that each line must have some specified number of syllables, or a specified number of feet, each of a specified form, with allowable variants of certain sorts. We can think of these principles as *defining* what is a poem of a certain type, and therefore as being analogous to grammatical rules specifying the sentences in the linguistic system proper.

Poetics in this narrow sense deals with what is expected, with what is predictable, given a particular poetic scheme. Some of the things I've mentioned in

dealing with the "Irish Rover" clearly belong to poetics in this sense. In general, my remarks about the fit of the poem to a linguistic analysis deal with the requirements of the poetic form (having to do with the nature of lines, rhymes, line divisions, and so on).

But some of what I said above is of a rather different sort, treating what you might call *broad poetics*, though its proper name is *stylistics*. Stylistics concerns itself with those aspects of a poem (or, indeed, of any other linguistic production) that are unexpected, unpredictable, *strategically placed* rather than determined by rule. These aspects of the poem manifest the intents of the author or performer and (perhaps) produce certain effects in the audience.

(The distinction between stylistics and narrow poetics is quite parallel to that between perlocutionary effect and illocutionary force in the theory of speech acts: again, a distinction between the strategic allocation of linguistic resources to achieve certain ends or effects, on the one hand, and rule-governed, conventional behavior on the other.)

Failure to observe this distinction has led to a certain amount of ill will and misunderstanding between linguists and literary critics. The linguist has, in a sense, something absolute to say to the literary critic with respect to (narrow) poetics. In this area, the linguist and the literary critic have a common interest—but the area is not very great in extent, and what linguists have to say here is not of enormous interest to literary critics. The fact that the expected line form in a particular poetic scheme is one with, say, ten feet in it is background information so far as the literary critic is concerned; it's all the other stuff that the literary critic is interested in.

The linguist's standing in stylistics is less secure than in poetics, and much more is at stake. What the linguist can offer is some *facts* about poems, couched in terms of the vocabulary appropriate to discussions of linguistic structure. What the linguist isn't in a position to supply is an *interpretation* of those facts. We have observed that in the "Irish Rover" the odd-numbered lines are very regular, and the even-numbered lines are irregular. That's a fact about this particular piece of language, a fact which a linguist like me could provide to a literary critic who's interested in the "Irish Rover" (should there be such a person), and which could then be used in spinning some further story about what that fact means, in particular about how one might interpret the poem in light of that fact (and other facts, of course, many of which the linguist has no responsibility to supply and no special insight about). A description of the stylistics of a poem is not an analysis of it.

What sorts of facts do we talk about in the field of (poetic) stylistics?

- mismatches, as when the poetic form calls for a strong syllable at some point in a line, but an unaccented syllable occurs at that point (as in line 8 of the "Irish Rover" verse, where the second syllable of *Rover* fills a strong slot in the poetic pattern)

- deviations from poetic rules, for instance, lines with the wrong number of feet
- deviations from linguistic rules, for instance, word orders not otherwise permitted in the language

That is, deviations from matching principles, deviations from poetic rules, or deviations from linguistic rules. But not all style is deviation. There are also:

- frequency effects, the high-frequency or low-frequency use of material that is not otherwise governed by some sort of rule and therefore is open for free choice (as when high vowels appear with extraordinary frequency in a poem, or when some set of lexical items is emphasized or avoided)
- co-occurrence effects, in which elements of different types occur together and in some sense reinforce one another.

A particularly nice example of two of these effects in one package is a famous bit of eccentric word formation on the part of the Latin poet Ennius. Ennius might have written *cerebrum comminuit* 'he smashes the brain,' but he chose instead to formulate the idea as *cere-comminuit-brum*, so breaking up the noun *cerebrum* 'brain' by inserting the verb *comminuit* 'he smashes' in the middle of it. The result is nonsense, because it violates the rules of word formation in Latin. This striking deviation of linguistic rules is accompanied by a particular bit of semantic content, namely the reference to smashing in the inserted verb form. The co-occurrence itself is striking and (at least to my mind) effective.

### 5. *Illustration: Types of Rhyme*

Now I should like to turn to two cases that have interested me, one from poetics narrowly understood, the other from stylistics.

In poetics, among the issues that naturally attract the linguist's eye is the question of what it is that rhymes—or, in the terms I developed above, what the segmental matching function is. (There are similar questions about meter and about line divisions; for the latter question I especially recommend Kiparsky (1975) for its discussion of differences in line divisions between different poets at different times.) All kinds of different systems of rhyme can be discerned in the practices of the world's poets. That is to say, there are different matching functions at different times and places.

The function we've been looking at is usually called *full rhyme*. It is not the only one that's available, for 'high' poetry or for folk poetry. One alternative scheme is represented in the literature primarily by the extraordinary system of rhyme in Old Irish. According to standard descriptions of this system (Murphy 1961, for instance), it worked in terms of *classes* of consonant segments that count as equivalent for the purposes of the rhyming system: any consonant in one class counts as equivalent to any other consonant in that class and doesn't count as equivalent to any other consonant in a different class. For instance, the voiced stops form a class, so that any voiced stop counts as matching any other, but a

voiced stop doesn't match a voiceless stop, even one at the same point of articulation. This system allows more matches than full rhyme, obviously, but only those within its set of six 'equivalence classes.' I will call this type of scheme *equivalence class rhyme*.

A system that is superficially similar to equivalence class rhyme is that of Turkish traditional poetry, as discussed by Malone (1982). In the traditional Turkish system there are four classes:

- (13) a. i ü u ĩ  
 b. a e  
 c. o  
 d. ö

That is, the four high vowels all count as matching one another, while of the nonhigh vowels, only /a e/ count as matching one another; and each of the phonemes /o/ and /ö/ matches only another occurrence of the same phoneme. It's significant in this case, as Malone points out, that the groups of vowels that count as equivalent for this matching function are exactly those that play a role in the vowel harmony of the language. Indeed, in an abstract representation for Turkish words (at least for affixes) the vowels of (13a) would be assigned a single representation, say *I*, while the vowels of (13b) would be assigned another, say *A*, and the isolated vowels of (13c) and (13d) would represent third and fourth entities.

It is a consequence of these facts that one way to see Turkish rhyme—indeed, the way Malone encourages you to see it—is not in terms of phonemic identity, but rather in terms of *morphophonemic* (or, at least, somewhat abstract) identity. Here Malone is pushing a proposal that has been advanced in several places by Kiparsky (especially 1968, 1972), with respect to the Finnish Kalevala and the Sanskrit Rigveda. The claim is that non-surface, more abstract than phonemic, representations are relevant in determining which segments count as rhyming.<sup>6</sup> In any case, Turkish might represent an example where there is some *sense* to the equivalence classes, where the equivalence classes are a surface manifestation of some more abstract unity.

Rather different from equivalence class rhyme is a type of rhyme for which there is no good standard name, but which I will call *half rhyme* (despite the fact that any two dictionaries of poetics will differ wildly in what they describe under this heading). The scheme that I'm talking about here is discussed in Zwicky (1976), the title of which illustrates the phenomenon:

- (14) This rock and roll has got to stop,  
 Junior's head is hard as rock.

*Stop* ends with /p/, and *rock* ends with /k/, but they count as rhyming, at least in the practice of many folk and popular poets. There is, in fact, a very large body

of lyrics using this looser matching function. Representative lyricists are Bob Dylan, Paul McCartney, Paul Simon, James Taylor, Judy Collins, and Warren Zevon.

What characterizes half rhyme is that the rhyming parts of words don't have to be phonemically identical—only close, in several specific senses: (a) a stressed vowel can be matched with a different vowel one feature different from it, /i e/ or /i I/, for instance; (b) a postvocalic consonant can be matched with a different consonant one feature different from it, /s z/ or /m n/, for instance; or (c) a single postvocalic consonant can match a cluster containing that consonant, /nd/ or /d dz/, for instance.

Recall again the first verse of the "Irish Rover," which has one failure of perfect rhyme, *aft-blasts* (see (8) above). Where you would expect perfect identity in consonants after the stressed vowel, you have instead /f/ matched with /s/—a single-feature difference between the two consonants. And where you would expect the same number of consonants after the stressed vowel, you have instead an extra /s/ at the end of *blasts*, /t/ matched with /ts/. What we have here is a (not uncommon) case of a compound of two types of half rhyme, types (b) and (c).

Many traditions of folk rhyme follow patterns very similar to those in the rock lyrics—half rhymes of all three types are to be expected. The operative matching function is less demanding than in most familiar rhymed verse, but still quite constrained.

Half rhyme and equivalence class rhyme are distinct from one another. They do not group together the same kinds of divergences from full rhyme. Notice that in the Old Irish case, the corresponding voiced and voiceless stops do not count as rhyming, though they would in a system of half rhyme; on the other hand, the Old Irish grouping together of /v/ and /r/ goes well beyond what a half-rhyme scheme will allow, since the two phonemes are more than one feature apart, in anyone's feature system.

(It is also true that both half rhyme and equivalence class rhyme are distinct from a fairly common scheme of 'high' poetry, namely *assonance*. The differences are discussed in Zwicky 1976.)

## 6. *Illustration: Regularity and Deviation*

I turn now from poetics in the narrow sense to stylistics, as applied to poetry. Here we are concerned with questions like the following: How can linguistic form and meaning reinforce one another? How are mismatches and deviations distributed throughout a poem? What does it mean if a certain element of linguistic form appears very often in a poem? And so on.

For several years now my wife and I have been exploring the second of these questions, about the distribution of mismatches and deviations in a poem. We began with folk verse, broadly understood, although our interest has recently

extended itself to the poetry of W. H. Auden. Folk poetry is a natural starting point, because it is composed, learned, and performed according to unconscious canons of what 'sounds right,' rather than by adherence to explicitly formulated rules;<sup>7</sup> in addition, primarily oral transmission insures that the verse is free of effects intended for the eye only, or calculated as a kind of obscure puzzle for the reader or hearer. That is, for folk poetry it is essentially guaranteed that linguistic structure—or at least those aspects of linguistic structure that have some psychological reality—will be relevant to analysis.

Our first research (Zwicky and Zwicky to appear) involved three sources of verse: (dirty) limericks, traditional American folk songs, and lyrics by Bob Dylan and the various Beatles. In verse from all three sources, as in folk poetry in general, line divisions are quite regular, so that the stylistic interest of these works lay in how rhythm and rhyme are used in them. It occurred to us when we first examined these materials that it would be reasonable to expect that the beginning of a poem would, in general, be more regular than its continuation, especially in oral poetry: the audience (or the reader) is required to discern a pattern fairly early on in the poem, in order to be able to interpret what follows.

As it happens, folk poetry does not tend to come in lines with the same number of feet or with the same foot type throughout. There is a fair amount of variation from one poem to another: the lines are mostly four feet long, but three-foot and six-foot lines also occur, and the dominant foot types include iambs, trochees, and anapests, and occasionally other types as well. The rhyme schemes are frequently ABAB, but there are a number of other patterns. What this means is that if you listen to the beginning of a folk poem, you simply don't know what foot type will be the norm, how many feet per line to expect, or where rhyming words will mark off verse structure. Consequently, if you are the poet and hope that your audience will perceive (however unconsciously) the pattern that lies behind your creation, you will do well to concentrate on keeping deviations in portions away from the very beginning.

Now there is a great deal of tedious technical detail involved in how one makes precise, and then tests, the proposal that the beginning of a poem is more regular than what follows. Fortunately, I can simply refer you to the discussion in Zwicky and Zwicky (to appear).

A brief summary of the studies and their results: (a) for the limericks, we compared their first halves to their second, with respect to the number of mismatches between the (linguistic) prosodic patterns of lines and the patterns required by the metrical scheme, and found these mismatches to be significantly less frequent in the first half than in the second; (b) for the folk songs, we compared the first verses of the songs to later verses in the same way, and found the first verses to be significantly more regular than the others rhythmically; and (c) for the pop/rock lyrics, we compared the first verses to later verses, with respect to the use of half rhyme or no rhyme versus full rhyme, and found that first verses showed significantly more full rhyme than later ones.<sup>8</sup>

A particularly nice incidental result fell out of this last study, which used a set of Dylan lyrics and all the usable lyrics from the Beatle's *White Album*. The Dylan lyrics fell naturally into two groups of unequal size: a large number of songs with four-line verses, mostly rhymed ABAB, and a few songs with very complex rhyme schemes in each verse. We examined five songs with extraordinarily complex requirements on segmental matching, among them "Like a Rolling Stone."<sup>9</sup> Below I provide the first verse of one version of this poem:

- (15) *Once upon a time* you dressed so *fine*,  
 You threw the bums a *dime* in your *prime*, *didn't* you?  
 People'd *call*, say "beware *doll*  
 You're bound to *fall*," you thought they were *all* *kiddin'* you.  
 You used to laugh *about* everybody that was hangin' *out*,  
 Now you don't talk so *loud*, now you don't seem so *proud*,  
     *About* having to be scrounging for your next *meal*.  
 [Words or phrases subject to rhyme requirements are italicized.]

Each verse of the poem comes in three pieces, each piece consisting of two lines with an appended phrase. Each of these lines has internal rhyme, so that there is a requirement for four matches in two lines. The phrases appended to the first two couplets rhyme with one another, and the phrase appended to the third couplet rhymes with a repeated line of the refrain, *How does it feel?* The scheme is then:

- (16) A+A A+A B  
 C+C C+C B  
 D+D D+D E

Notice that in (15) not all of the rhymes are full: *fine* is a half rhyme to *time*, *dime*, and *prime*; *doll* is a half rhyme to *call*, *fall*, and *all*; and *about* and *out* half-rhyme with *loud* and *proud*. *Didn't* you and *kiddin'* you, despite appearances on the printed page, were perfect rhymes in the recorded performance we used as the basis for our calculations. *Meal* in the last phrase matches the refrain word *feel* perfectly. In other verses full rhymes appear in place of some of these half rhymes, half rhymes appear in different places, and some matched words don't rhyme at all.

Schemes of the complexity of (16) are hard to pull off in verse that is performed rather than printed, especially if the words are to be sung, and especially if you sing like Bob Dylan. We expected ahead of time that if there was a tendency towards regularity at the beginning of folk poems, it would show up in sharp relief in complex cases like (15). And, in fact, with only five 'complex' Dylan poems in our analysis, we got a very strong statistical effect for regularity in the rhyming of the first verses versus later ones.

## 7. Conclusion

I have now illustrated some of the ways in which a linguist might assist the study of poetry, especially folk poetry. In one narrow domain—poetics proper—it is the linguist's constructs that are the very objects of study. In another, much larger, domain, the linguist has the role of one adviser among many, offering observations about the language of poetry that might be interpreted and combined with other sources of insight into a work's effects. I hope to have shown you that a linguist examining folk poetry can serve both roles, elucidating poetic form itself (as in my discussion of the metrical matching function of half rhyme) and also suggesting paths in interpreting the poem's effects (as in my discussion of regularity and deviation in the rhyme and rhythm of folk verse).

### NOTES

1. From "The Irish Rover" in *The Clancy Brothers and Tommy Makem Song Book*, p. 39, copyright 1964, Tiparm Music Publishers.
2. By 'folk poetry' I refer to verse transmitted primarily by oral, rather than written, means. I include nursery rhymes, limericks, mnemonic rhymes, nonsense verse, the words to folk songs, and the lyrics of popular music, even when the authors of these are known (as is the case for Gelett Burgess's nonsense poem "The Purple Cow" and all popular song lyrics), even when written versions of the words are widely distributed (as is the case for much nonsense verse and all nursery rhymes), and even when the verse is known to be of recent composition (as is the case for popular song lyrics).
3. Following the general custom in the study of folk poetry, I use the term *line* even for units of oral verse. The reader must not attribute any unintended orthographic interpretation to the word.
4. What follows is largely based on the work of Paul Kiparsky (especially Kiparsky 1975, 1977). See O'Connor (1982) for some discussion of this framework and of the Jakobsonian viewpoint it grows from.
5. In a fuller treatment the metrical feet would also have internal structure, which I have suppressed here for simplicity.
6. Churma (1979) stresses throughout his discussion of 'external' evidence in phonology, as does Sommerstein (1977:218–20) in his treatment of poetic schemes as evidence in phonology, that poetic equivalences like those of Turkish, Finnish, Sanskrit, or (Sommerstein's example) Icelandic cannot be used directly to argue for phonological analyses in which the equivalent segments have the same (morphophonemic) source. The alternative is simply that the equivalences are poetic conventions, part of the matching functions in the languages in question (historically, they are archaisms, reflexes of earlier full rhymes: earlier identities are present equivalences). The natural objection to *this* proposal is that these matching functions are unnecessarily complex, and that simpler matching functions (referring to abstract levels of representation) are available. However, nothing says that simplicity arguments applicable to linguistic analysis should carry over to the poetic domain (or, indeed, to the domain of any other overlay system).

7. This observation is as true of pop music lyrics as of traditional folk verse: "pop music is made by ear-musicians, not eye-musicians" (Mellers 1973:28). Elsewhere in this book on the Beatles' music and lyrics, Mellers refers to the 'empirical' processes governing the Beatles' harmonic progressions; that is, the Beatles tried a number of things and then stuck with effects they liked. Surely much the same can be said for the Beatles' lyrics. In the case of Bob Dylan, with his roots in folk music and blues, it perhaps more obviously true that composition is a matter of choosing what 'sounds right'; performance (rather than a given text) is stressed, and there are many variants of individual songs on different occasions (see Bowden 1982 for an extended discussion of these points).
8. We do not propose that earlier portions of poems are more regular than later ones in all cases, in all poetic traditions. In 'high' poetry, especially in forms usually encountered visually, the tendency might on occasion be absent, or even reversed. And in any case the tendency is a statistical one. A particular poem might be aberrant, even interestingly aberrant.
9. From "Like a Rolling Stone," by Bob Dylan (copyright 1965 by M. Witmark and Sons), in *Bob Dylan*, pp. 4-6 (copyright 1974 by Warner Bros.).

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