An intermingling of folk and art music lends credence to the analysis of folk music through systems designed for art music. Fred Lerdahl and Ray Jackendoff presented a system useful for folk music analysis. The system, which Lerdahl and Jackendoff developed from Schenkerian analysis and structural linguistics, works under the assumption that a piece of music proceeds from stability to instability, returning to stability at its end. Two variants of "Black Jack Davy," Child Ballad number 200, are used to demonstrate the system's usefulness in drawing relationships between surface adjacencies and in making melodic and formal relationships explicit. The analysis coding is quick and simple and provides a deeper concept of the music. Four appendices and a list of 13 selected references are attached. (LBG)
WHERE WENT BLACK JACK DAVY?
A HIERARCHICAL APPROACH TO TUNE ANALYSIS AND COMPARISON

Presented At
The 1986 Folklore Society Conference
October 23-26, 1986

by
Rosemary N. Killam
School of Music, North Texas State University
Where Went Black Jack Davy?
A Hierarchical Approach to Tune Analysis and Comparison

We know from where Davy came:
over the hill (Bronson variant #9)
crossed the plains (Bronson variants #14 and 94)
ariding thru the woods (Bronson variant #112)
the field (Bronson variants #116 and 121)
ridin around (Bronson variant #123)

He's a well-travelled rogue in the 128 variants of Child 200 which Bronson collated.

Where Davy went isn't addressed so clearly in the ballad variants. The suggestion I'm making this morning is that a new analytical system may help us document, at another level, his tune's path and relationships.

How did a nice music theorist get in a place like this? In 1968, I studied characteristics of ballad opera tunes. In 1970, I recorded singins in Texas, from which I've drawn some preliminary conclusions about harmonic structure and chromaticism, which apply also to my Missouri field recording. This morning's two variants of Black Jack Davy are a small part of several years of field recording in the southeast Missouri Ozarks.

Throughout this research I've been troubled by the need for a system to express more precisely the melodic and formal relationships within the tunes themselves. I needed clearer ways to note and describe the differences and similarities of tune variants.

The intermingling of folk and art music lends credence to the analysis of folk music through systems designed for art music. As an example I've
included 2 students' summary of the importance of the L'Homme Arme melody as the second to last page of your handout.

Music theory can provide possible answers to questions raised in folklore, such as why so few pure Lydian melodies are found in Western European folk music. Given the solmization system ascribed to Guido d'Arezzo in the 11th century, and its continuous use thereafter, one would expect sacred Lydian mode melodies to be solmized using the soft hexachord with its required B♭. Lydian melodies therefore sound major to our modern ears.

Indeed, I would submit that the presence of a raised 4th in a melody, especially if it precedes the dominant, should be questioned first for the possible implication of a secondary dominant or secondary leading tone harmony; the secondary dominant being quite common among many folk harmonists.

A system useful for folk music analysis needs to make explicit a multiplicity of relationships. Lerdahl and Jackendoff are clear about their attempt to cover more than art music. On page xii of the introduction, they write:

We hope that this work will interest a wider circle of readers than the usual treatise on music theory. As we develop our rules of grammar, we often attempt to distinguish those aspects of the rules that are peculiar to classical western tonal music from those aspects that are applicable to a wide range of idioms. Thus, many parts of the theory can be tested in terms of musical idioms other than the one we are primarily concerned with here, providing a rich variety of questions for historical and ethnomusicological research.

On page 215, they write:

It may be worth mentioning that these rules can easily be modified for a purely melodic idiom such as Gregorian chant. In such a case, the definitions would be stated in melodic rather than primarily harmonic terms.
Moreover, the authors display a sense of humor rarely found among theorists. After their lengthy enumeration of people to whom they are indebted for manuscript correction they close with the sentence: "The authors blame each other for any errors that remain."

Lerdahl and Jackendoff admit their debt to Schenker. Nonetheless, I should warn you that their book is controversial among Schenkerians. For those of you not familiar with it, Schenkerian theory is of early 20th century provenance, arising from a part of the tradition of music theory. It is the predominant analytical system presented by most of the current music theorists. I confess that Schenkerian theory has an elitist cast that troubles me. The proper way to acquire proficiency in it was, for years, intensive private study. Only since 1979 have basic books on Schenkerian theory been widely available. I've included a short list of selected references at the back of the handout.

Just what is this theoretical system proposed by Lerdahl and Jackendoff? They make the stated assumption that a piece of music proceeds from stability to instability, returning to stability at its end. Thus, musical structures in a piece can be related as more or less stable, and these relationships can be delineated and described. They assert that a piece must have a tonal center, and a scale of distance from it to other pitches can be established. Also, structural beginnings and endings are important.

They posit that musical intuitions are organized on 4 hierarchical dimensions—

1) grouping, which is relatively independent of meter,
2) metrical structure,
3) time span reduction, which depends on meter at small levels and and grouping at large levels,

4) prolongational reduction, which depends on time span relations and the stability of pitch connection.

For each of these four areas, they have developed rules which are divided into well-formedness rules and preference rules. Now I'll illustrate these rules through a preliminary analysis of Bronson's Variant 3 of Child 200, Figure 1. This variant was collected and published in 1925 by Greig and Keith and sung at Glen Buchnet.
Grouping well formedness rules establish formal structural grouping rules and the relationship to pitch events. Lerdahl and Jackendoff propose five rules, which I'll quote in their entirety to show their clarity.

1) Any contiguous sequence of pitch-events, drumbeats, or the like can constitute a group and only contiguous sequences can constitute a group.

2) A piece is a group.

3) A group may contain smaller groups.

4) If one group contains a part of another group, it must contain all of that group.

5) If one group contains a smaller group, then the first group must be exhaustively partitioned into smaller groups.

(The grouping structure I propose for variant 3 is in red on the transparency, but not on your handout.)

Metrical Structure results from the listener's association with a musical surface. I won't pursue metrical rules in detail but will add that Lerdahl and Jackendoff posit a "tactus" for each piece which is present throughout and that the preference rules select the metrical structure which the listener hears. The smallest submetric level is marked with dots below the notes. Subsequently, larger metric levels are marked on lower levels (the transparency has metrical structure marked in green dots, which aren't on your handout).

Time span reductions - time spans are the rhythmic units in which the pitch structure is heard and are determined by four well-formedness rules and nine preference rules. Time span reduction uses a tree notation, in black, both on your handout and on the transparency. At local levels
metrical structure more determines time span structure. At more intermediate levels grouping boundaries become important. At large levels the right or left branching expresses pitch grouping relationships.

Prolongational Reduction deals further with points of tension and repose and is based on harmony. I am unsure of its applicability to single-line folk music and shall omit discussion of prolongational reduction this morning.

Analysis of variant 3 explicates the following relationships:

This is a tune composed of four motivic units, all four of which begin with the same structurally important notes. The melody is organized into 2 phrases which are parallel and nearly identical.

This is not a strong cadential melodic structure. Rather the song has an intermediate level of D - E - D which ultimately cadences the piece. There is a surface structure of D - E - G at the local level. The varied opening of the two phrases "D - D" and B - D" doesn't alter their similar structure as neither opening note is structurally important.

Now let's take another variant (Bronson #100) of Black Jack Davy and begin a preliminary analysis of it. This variant was collected by Randolph in Mena, Arkansas in 1930. The geographic proximity to my area of field work might lead us to find variant relationships.
I think that grouping structure follows meter for the most part, allowing for upbeats.

Note that the second phrase is an elaboration of the D - E - D motive found also in variant 3.

Now let's fill in the dots for the rhythmic structure.
Now let's start the time span analysis.
The first pitch isn't the first important structural note but seems to foreshadow the second pitch. The first and last structural notes should relate at the largest level.

Cadences are indicated with a circle connecting the two structures. Note that the cadence at the end of phrase two isn't balanced by a similar one at the end of the song. I suggest that the expansion of the second phrase into a three-motive group allows the "A" at the end of the second-to-last phrase to serve as a part of the final cadence. Therefore, I attach these two events at a higher level.

What do we know about Variant 100 that we didn't know before?

1) The parallism of motives 1 and 3, "G B D B G", is now explicit.

2) The melody's binary structure is now clear:
   a. The first half is a phrase.
   b. The second half is a three-motive phrase, with the last two motives extended (perhaps from one originally) to form the cadence.

To conserve time, I've deleted most of the informants' discussion and comments from the tape and summarized it on your handout, which also contains the transcriptions. I'll play the tape now and accompany it with transparencies of the transcription supplied here as figure 3 A - B and 4 A - B.
1. Black Jack Davy come a-ridin' o'er the plains and he sang so loud and mer-ry,

sang so loud the woods all rang, it would char the heart of a la-dy,

charm the heart of a lady.  [Informant discussion]

2. How old are you, my pretty little miss, how old are you, my hon-ey? She

answered him with a tee-hee-hee I'll be six-teen next Sunday, I'll

be six-teen next Sunday.
3. Come go with me, my pretty little miss, come go with me my honey,
swear by the sword that hangs at my side you never shall want for money, you
never shall want for money.

4. She pulled off her high-heeled shoes all made of Spanish leather
she put on her low-heeled shoes and off they rode together,
off they rode together.
5. It was late that night when the lord came home in quiring for his lady.

As the servants round the home, she's gone with the Black Jack Davy, she's gone with the Black Jack Davy.

(Fragments)

6. Rode all night by the wide riverside, ever' town that he passed through...

Just about the break of day he and there he spied his lady, there he spied his lady.

Figure 3C.
7. Have you forsaken your house and home, have you—forsaken your baby? Have you forsaken all of your nice things to go with the Black Jack Davy, to go with the Black Jack Davy?

8. Yes, I've forsaken my house and home, yes, I've forsaken my baby, I've forsaken all of my nice things, to go with the Black Jack Davy, to go with the Black Jack Davy.

Figure 3D
9. Last night you used to sleep on your warm feather bed beside your love in baby, tonight you'll sleep 'neath the cold dark ground beside the Black Jack Davy, beside the Black Jack Davy
1. How old are you, my pretty little miss, how old are you, my honey? She answered him most modestly, I'll be seventeen next Monday, I'll be seventeen next Monday.

2. Come go with me, my pretty little miss, come go with me my honey, I'll swear by the sword hangs by my side that you'll never want for money, that you'll never want for money. [Informant discussion]

Figure 4A
3. She took off her high-heeled shoes all made of Spanish leather.

She put on her low-heeled shoes and they rode off together, and

they rode off together, and they rode off together.

4. Last night I slept on a feather-bed with feathers white anddowney. To-

ight I'll sleep on the cold, cold ground with Davy's arms around me. I'll

go with Black Jack Davy, I'll go with Black Jack Davy. [Informant discussion]

Fragment of Chorus:

'Addie 'addie dum dum 'addie 'addie dum dum Davy

'Addie Addie dum dum diddle ee 'Addie Addie dum dum Davy.

Figure 4B
An analysis of the Farris and Powell variants is included in your hand-out (See Appendix D). Note that the Farris variant has the five time span structure, similar to the Bronson 100 Variant, and that the last two phrases form a cadential pattern.

The structural similarity of Bronson Variant 100 and of the Farris Variant stand out through the time span reduction, despite the greater rhythmic complexity and different tessitura.

The Powell Variant analysis is on the reverse-page. This variant is clearly a 3-part form, no phrase of which ends with a strong scalar melodic cadential pattern. The time span reduction displays the similarity of structural phrase openings, which reduce to "D - E - G - B" at an intermediate level.

In summary, what does this system of analysis help us learn which other systems do not? It helps us draw relationships between surface adjacencies and also more extended structural relationships. It requires considerable thought about each melodic relationship: does a given note extend and intensify the relationship with a previous one, or does it foreshadow the repose of cadential closure?

The system could probably be incorporated into computer-assisted analytical systems and data bases, provided their software is written in a language which handles recursion efficiently.

The system reveals motivic groups, even if they are considerably ornamented or imbedded in surrounding context.

I find that, although the analysis coding is simple and quick, each analytical judgment requires much consideration, and I come away with a new and deeper concept of the song. Such analysis enriches our understanding of folk music.
Despite the melody's "final," the other three voices are arranged so the Dorian cadence is maintained throughout all five movements. This leaves room

for some interesting shifts of tonal center and changes in the intervallic structure of the melody. The cantus firmus is treated in three ways:

1. Different pitch levels (again, this never interferes with the mode -- the rests that introduce and follow the cantus firmus permit it to begin and end on D even when it is in Ionian, Phrygian, or Aeolian).

2. Different speed than the other three parts in all sections except the Confiteor in the Credo and the Hosanna.

3. The melody is presented backward in the Qui tollis peccata mundi and Et incarnatus est.

"Fear the armed man; word has gone out that everyone should arm himself with a hauberk of mail." (It is thought that this text may refer to a crusade against the Turks.)
APPENDIX B

SELECTED REFERENCES FOR SCHENKERIAN MUSIC THEORY


APPENDIX C

HANDOUT FOR 1986 AMERICAN FOLKLORE SOCIETY PRESENTATION

Rosemary N. Killam, North Texas State University

Mrs. Anna May Powell and Mr. Charles Farris are my neighbors, friends, and mentors. (I've recently built a research place on family land in Madison County, Missouri.) Since 1982, they have patiently shared their knowledge. In January, 1985, both of them sang their variants of Child No. 200 and discussed their concepts of the ballad's meaning. In the interests of time, I've deleted Mrs. Powell's and Mr. Farris' discussion from the presentation tape and have summarized their comments on the accompanying handout.

Mrs. Powell plays accordian, piano, guitar and autoharp. Her ancestors came to Missouri from Virginia; her great-grandfather homesteaded in Madison County. Mrs. Powell started singing as a child with her family and has never stopped. She and her own family lived in St. Louis (100 miles north) for a few years, returning in the 1960's. She is a leader in Coldwater community activities.

Mr. Farris was born a few counties to the south. He is one-quarter Cherokee; his family farmed in Illinois and Missouri. As a child, Mr. Farris started singing with his family; he remembers his father singing all the time. He plays banjo, harmonica, mandolin, guitar and bass, and has the most extensive memory for songs I've ever encountered. Mr. Farris made a career of the U.S. Army, playing and singing wherever he was stationed. He retired to complete a degree in history, then to Madison County.

SUMMARY OF JANUARY 5, 1985, CONVERSATION WITH MR. FARRIS, RECORDED CEDAR BOTTOM, MO

Farris: There's another version where he doesn't [kill Davy and the woman]
And they just ride on away
The verses of that action--I don't have
But there's a couple more verses-uh-concerning his ride
Asking the villagers if they've seen her and so forth
And he catches up with them and slays the Black Jack Davy and returns home.
APPENDIX C (cont'd.)

1986 AFS, Killam

Killam: Where did you learn it?

Farris: That's a good question
We used to sing it - as a kid
Where I learned it,
I learned it very early in life
I forgot it
Then I heard it on the radio in the '50's a couple of times
But a new version of it
And this is where I got the version where he didn't slay the Black Jack Davy

Killam: Because in your original version he kills them both

Farris: Yes, he kills them both and rides home
And is haunted by the-

Killam: Ah--

Farris: He always hears her sayin 'I'm goin with the Black Jack Davy'
And that's the oldest version that I know of
And I really don't know which predates the other
It's the version that I learned.

Killam: Was that one that you and Clyde used to sing together?

Farris: Yeah, when we were kids

Killam: Probably learned from your Daddy--

Farris: Most likely
My dad sang all the time
But most of his songs were not printable.

SUMMARY OF JANUARY 3, 1986, CONVERSATION WITH MRS. POWELL, RECORDED COLDWATER, MO

Powell: It's about a woman-
Left her house and babies and went with Black Jack Davy
And then he overtook em
And it says one nite she sleeps on a fine feather bed,
The next in the woods with Davy
And the next night back home again.

The original English had some funny little words in it--

Killam: Where did it do that?

Powell: When I learned it.

But it had ah--
Well like it didn't say 'babies' at all, it said 'babes'
And uh--it wasn't two it was 'twa'
--Like Scottish maybe
Or Irish? twa--

Killam: Your version must have had a whole bunch of verses--
1986 AFS, Killam

Powell: It did--
About--he rode up
Rode up in front of her house
And He wanted some wine
And she told the maid that:
She was gonna forsake her house, home, husband and babe and
Go with Black Jack Davy.
And she took off, and uh--
The landlord or the--yeah the landlord is what we called him
--Landlord, when he returned, askin
[sings] Askin for his lady, she sped awa'
Away--awa' a while ago
[Sings] On the horse with Black Jack Davy
And then--
The Landlord gets his horse and goes after them.

Killam: But in your version she went back with him.
Was she married to the landlord?

Powell: Yeah!
Cause it says, 'I will forsake my house and home and I will forsake my
[sings] babies
I will forsake my husband
[sings] for the arms of Black Jack Davy.

But she answers him, 'I'll be sixteen next Sunday'
Some of them says sixteen, some of them says seventeen
And yet she's-
Already got a baby and a husband
Sounds Irish.

But wherever I saw a copy of that it had:
Black Jack Davy and the Davy was spelled D-A-V-Y
And I can remember
Away was 'A-W-A'
and 'babe' and then-uh,
It must have been and old old old old copy or something
Daddy had a lot of-
Of hand-written copies but I'll-
I won't see them any more because I don't know what went with them.
Variant of Child Ballad 200, sung by Mr. Charles Farris
Variant of Child Ballad 200, sung by Mrs. A. M. Powell
SELECTED REFERENCES


